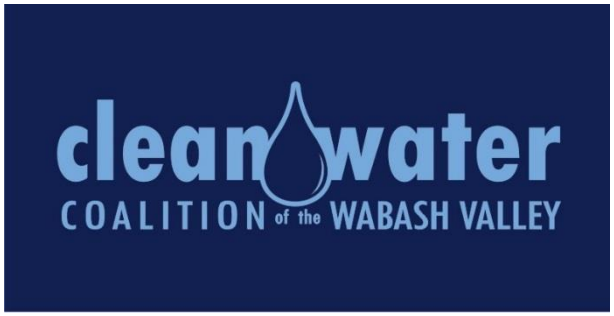
NPDES PHASE II GENERAL PERMIT

STORMWATER QUALITY MANAGEMENT PLAN

PART C: PROGRAM IMPLEMENTATION UPDATE

Prepared for:



City of Terre Haute
Vigo County
Town of West Terre Haute
Town of Seelyville
Ivy Tech Community College – Terre Haute
Indiana State University
Rose – Hulman Institute of Technology
Honey Creek – Vigo County Conservancy District

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CHAPTER 1

INTRODUCTION

As part of the 1987 amendments to the federal Clean Water Act (CWA), the United States Congress added Chapter 402(p) to the CWA to address the water quality impacts of stormwater discharges from industrial facilities and large to medium municipal separate storm sewer systems (MS4s). Large to medium MS4s were defined as communities serving populations of 100,000 or more and are regulated by the Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System's (NPDES) Stormwater Phase I Program.

In addition to these amendments, Congress directed the EPA to issue further regulations to identify and regulate additional stormwater discharges that were considered to be contributing to national water quality impairments. On December 8, 1999, the EPA issued regulations that expanded the existing NPDES Stormwater Program to include discharges from small MS4s in "urbanized areas" serving populations of less than 100,000 and stormwater discharges from construction activities that disturb more than one acre of land. These regulations are referred to as the NPDES Phase II Stormwater Program.

Figure 1 Location of Vigo County, Indiana

Within Vigo County MS4 area (**Figure 1**), there are eight entities designated as regulated MS4s due to their total population, population density, and total full time enrollment numbers. These MS4 entities have combined their efforts as co-permittees to better utilize existing programs and to provide unified and consistent regulations throughout the county. They are the City of Terre Haute, Vigo County, the Towns of West Terre Haute and Seelyville, Ivy Tech Community College's Terre Haute campus, Indiana State University, Rose-Hulman Institute of Technology, and the Honey Creek – Vigo County Conservancy District (herein referred to as the Co-permittees).

In the State of Indiana, the Indiana Department of Environmental Management (IDEM) is responsible for the development and oversight of the NPDES Phase II Program. The IDEM initiated adoption of the Phase II Rules that were ultimately codified as 327 IAC 15-13 (Rule 13). Rule 13 became effective on August 6, 2003 and requires designated MS4 entities to apply for permit coverage by submitting a Notice of Intent (NOI) and developing Stormwater Quality Management Plans (SWQMPs) through a phased submittal process. The IDEM's phased submittal requirements for the SWQMP include the following three components:

- Part A: Initial Application
- Part B: Baseline Characterization Report
- Part C: Program Implementation Plan

During the first permit term, the Co-permittees' NOI and SWQMP Part A documents were submitted to IDEM on November 3, 2003 (revised proof of publication submitted November 19, 2003 and another revised proof of publication was submitted on December 3, 2003). The SWQMP Part B document was due on May 3, 2004. The MS4 Group was granted a 60-day extension on the Part B submittal and the final document was submitted to IDEM on July 1, 2004. The Co-permittees' original SWQMP Part C was submitted to IDEM on November 3, 2004. Within the second permit term, the Co-permittees' renewal NOI and SWQMP Part A were submitted to IDEM on September 16, 2008. In 2010, the Co-permittees' updated their SWQMP Parts B and C. During the third permit term, the Co-permittees' renewal NOI and SWQMP Part A were submitted to IDEM on October 26, 2013. In 2015, the Co-permittees' updated their SWQMP Part B and SWQMP Part C. During the fourth permit term, the Co-permittees' renewal NOI and SWQMP Part A were submitted to IDEM on August 7, 2018. Their SWQMP Part B was updated in 2019 and their Part C will be updated in 2020.

This report has been prepared to address Rule 13 requirements for updating the SWQMP Part C: Program Implementation Report. According to 327 IAC 15-13-19(e), "Subsequent permits will require the MS4 operator to maintain, and where possible, improve their performance in implementing the 6 MCMs." It is intended that this updated SWQMP Part C replaces the information provided in the originally submitted SWQMP Part C (2004) as well as the 2010 and 2015 updates.

CHAPTER 2

MS4 AREA DESCRIPTION

Rule 13 requires a narrative and mapped description of the MS4 area boundaries and an estimate of the linear feet of MS4 conveyances within the MS4 area. The following discussion provides an evaluation for the municipal stormwater conveyance system within the Vigo County MS4 area. The map of the MS4 area boundaries is shown on **Exhibit 1** and all MS4 boundaries will be updated as necessary following land purchases or acquisitions.

2.1 NARRATIVE DESCRIPTION OF MS4 AREA

The Vigo County MS4 entities are working under a joint permit to fulfill requirements of Rule 13. The MS4 area covered by this permit includes the corporate boundaries of the City of Terre Haute, the Town of West Terre Haute, the Town of Seelyville, the campus boundaries of Ivy Tech Community College – Terre Haute, Indiana State University, and the Rose Hulman Institute of Technology, the boundaries of the Honey Creek – Vigo County Conservancy District and portions of unincorporated Vigo County. The portions of the county included in the MS4 are described as the unincorporated and non-university owned portions of:

- Township 11 North, Range 8 West
  - Portions of Sections 5-8 that are not part of the City of Terre Haute or Rose-Hulman Institute of Technology
  - Section 18

- Township 11 North, Range 9 West
  - Portions of Sections 1-3, 5-8, 11, 14-18, and 27 that are not part of the City of Terre Haute, Ivy Tech or the Honey Creek Conservancy District
  - Sections 12-13, 21-23, 25-26, 28, and 35

- Township 11 North, Range 10 West
  - Portions of Sections 1, 12-13 that are not part of the City of Terre Haute

- Township 12 North, Range 8 West
  - Portions of Sections 9-18, 21, 27, and 33-34 that are not part of the City of Terre Haute, Rose-Hulman Institute of Technology, or the Town of Seelyville
  - Sections 6 and 22

- Township 12 North, Range 9 West
  - Portions of Sections 4, 8-9, 16-17, 19-21, 28-32 that are not part of the City of Terre Haute, Indiana State University or the Town of West Terre Haute

- Sections 5 and 18

- Township 12 North, Range 10 West
  - Sections 24-26

- Township 13 North, Range 8 West
  - Sections 18-19 and 30-31

- Township 13 North, Range 9 West
  - Portions of Section 35 that are not part of the City of Terre Haute,
  - Sections 13-14, 22-27, 31-32, 34, and 36

2.2 DESCRIPTION OF MS4 CONVEYANCE SYSTEM

The Co-permittees were required by 327 IAC 15-13-14 to "…develop a storm sewer system map showing the location of all outfalls and MS4 conveyances in the particular MS4 area under the MS4 operator's control and the names and locations of all waters that receive discharges from those outfalls." During the first permit term, "All known conveyance systems with a pipe diameter of 12 inches or larger and open ditches with 2 foot or larger bottom width" were to be mapped. During subsequent permit terms, the remaining MS4 owned and operated outfall conveyance systems need to be mapped. These requirements do not include private or mutual drains, yard swales that are not maintained by a regulated MS4 entity, or curbs and gutters.

2.3 COMBINED SEWER OVERFLOW PROGRAM COORDINATION

Rule 13 gave municipalities with combined sewer systems (CSS) and MS4 conveyances (who were subject to both the NPDES CSO and MS4 Permitting Programs) the option of amending their existing CSO Operational Plan (CSOOP) and/or Long-Term Control Plan (LTCP) as a means to satisfy their Rule 13 permit requirements. Instead, the City of Terre Haute has elected to develop and implement a complete Rule 13 Program in this plan with the other listed Co-permittees which will complement the City of Terre Haute's CSO program. The recommendations in this plan are consistent with information, strategies, and recommendations made in the City of Terre Haute's CSOOP, Stream Reach Characterization Evaluation Report (SRCER), and LTCP. Whenever these noted plans are updated, they will be reviewed to ensure consistency with this plan.

2.4 PRIORITY AREAS AND CONCERNS

The Rule 13 SWQMP-Part B required the identification of areas having reasonable potential for or causing stormwater quality problems based upon relevant land use data and identified sensitive areas, as well as, existing and available water quality data.

The Co-permittees identified agricultural and urbanizing land uses (in relation to the potential impacts to highly erodible soils, soils unsuitable for septic systems, and wetlands) as potential problem areas in their Part B submittal. In order to address potential water quality impacts associated with agricultural land uses, the Co-permittees will continue to work with the Vigo County Soil and Water Conservation District (SWCD) to provide education and outreach and assistance to agricultural and suburban landowners.

CHAPTER 3

MCM #1: PUBLIC EDUCATION AND OUTREACH

***327 IAC 15-13-12(a)**: An MS4 operator shall develop an SWQMP that includes methods and measurable goals that will be used to inform residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel within the MS4 area about the impacts polluted storm water run-off can have on water quality and ways they can minimize their impact on storm water quality.*

3.1 PUBLIC EDUCATION AND OUTREACH

Rule 13 requires that residents, visitors, public service employees, commercial and industrial facilities, and construction site personnel within the MS4 area be informed about the impacts that polluted stormwater runoff can have on water quality and ways they can minimize their impact on stormwater quality. A reasonable attempt must be made to reach all constituents within the MS4 area. The following discussion provides information on the Co-permittees' MS4 area Public Education and Outreach Program.

Public Education and Outreach BMPs, outlined in **Table 4-1** located in Section 4.0, will be implemented by the Co-permittees in order to comply with the minimum requirements of this MCM. These BMPs have been combined with the BMPs outlined for Public Participation and Involvement (MCM #2) for ease of presentation and discussion. The table provides a summary of the Public Education, Outreach, Participation, and Involvement BMPs to be implemented and identifies the associated measurable goals, programmatic indicator numbers, timelines, priority areas, and responsible parties.

The Co-permittees' MS4 area, as discussed in Section 2.0, is comprised of both agricultural and urbanizing lands. The Co-permittees' Public Education, Outreach, Participation, and Involvement Program has therefore been designed to minimize stormwater impacts originating from both urban and rural land uses. This program informs citizens about the impacts of stormwater discharges on waterbodies and steps that can be taken to reduce pollutants in stormwater runoff.

Within Table 4-1, responsible parties are listed for each BMP. To date, the Co-permittees continue to work closely with the Vigo County Soil and Water Conservation District (SWCD). This agency provides public education and outreach services while also playing a major role in the public involvement and participation activities.

Further, the Co-permittees have entered into a Memorandum of Agreement (MOA) with the Vigo County SWCD for the implementation of the majority

of Rule 13's MCMs #1 and #2. The Co-permittees and the SWCD make up the Clean Water Coalition of the Wabash Valley (Coalition). The Coalition's name and logo are utilized in public education and outreach efforts.

CHAPTER 4

MCM #2: PUBLIC PARTICIPATION AND INVOLVEMENT

327 IAC 15-13-13(a): *The MS4 operator shall develop an SWQMP that includes provisions to allow opportunities for constituents within the MS4 area to participate in the storm water management program development and implementation.*

4.1 PUBLIC PARTICIPATION AND INVOLVEMENT

Rule 13 requires that documented opportunities are given to constituents within the MS4 area to participate in the stormwater management program development and implementation. The MS4 entity must comply with public notice requirements to allow public comment.

Compliance with this MCM requires MS4s to demonstrate that citizens and community members were provided with ample opportunities to participate in the development and implementation of the SWQMP.

Public Participation and Involvement BMPs, outlined in Table 4-1, will be implemented by the Co-permittees in order to comply with the minimum requirements of this MCM. These BMPs have been combined with the BMPs outlined for Public Education and Outreach (MCM #1) for ease of presentation and discussion. The Table provides a summary of the Public Education, Outreach, Participation, and Involvement BMPs to be implemented and identifies the associated measurable goals, programmatic indicators, timeline, priority areas, and responsible parties.

Within Table 4-1, responsible parties are listed for each BMP. To date, the Co-permittees continue to work closely with the Vigo County SWCD. This agency provides public education and outreach services while also playing a major role in the public involvement and participation activities.

Further, the Co-permittees have entered into a Memorandum of Agreement (MOA) with the Vigo County SWCD for the implementation of Rule 13's MCMs #1 and #2. The Co-permittees and the SWCD make up the Clean Water Coalition of the Wabash Valley (Coalition). The Coalition's name and logo are utilized in public participation and involvement efforts.

Table 4-1: Public Education and Outreach BMPs & Public Participation and Involvement BMPs

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Assessment of Public Awareness	• Survey public event attendees and use data to assist in developing public education, outreach, participation, and involvement strategies	• Conduct survey at ISU Earth Day and St. Mary's Earth Day • Review data and update strategies annually	Conduct annually	Coalition
Stormwater Educational Brochures	• Develop 3 brochures addressing: o Restaurants/FOG o Lawn Care o Motor Oil	• Distribute 3 new stormwater brochures during the 4th permit term • Track # of brochures printed and distributed	On-going distribution	Coalition
Storm Drain Marking	• Continue to apply QR codes to storm drains a part of Stormwater Community Watch Program • Maintain dedicated storm drain marking website	• Mark 500 storm drains annually • Track locations of marked drains	On-going	Coalition
Stormwater Community Watch Website	• Continue program to allow citizens to report stormwater pollution issues as well as provide educational information • QR codes on storm drains send users to this program website	• Maintain information on dedicated website	On-going	Coalition
K-12 Education	• All 5th graders in Vigo County participate in Conservation Field Days. • Envirothon is an annual event for High School students.	• Continue water quality presentations at Conservation Field Days. • Continue water ecology presentation at Envirothon. • Track using Programmatic Indicators #1 and #2	Held annually	Coalition

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Business & Industry Education	• Continue to conduct pre-treatment, grease trap, and stormwater inspections of business and industrial facilities having a wastewater treatment permit • Provide educational and training information to facilities during inspections as appropriate	• Track number of inspections conducted	Inspect facilities annually	Coalition
Training for Construction Professionals	• Continue to offer Contractors' Workshop • Vary topics to meet needs of attendees and Coalition program goals	• Track using Programmatic Indicators #1 and #2	Annually	Coalition
Misc. Media	• As appropriate, utilize various types of media to enhance their Stormwater Education Program • Distribute stormwater quality articles in newspapers, newsletters, or other existing publications • Continue participating in jointly produced videos with other MS4 entities • Use social media as needed	• Track number and topics of articles or social blasts • Place links to videos on websites	On-going distribution	Coalition
Web Sites	• Continue to maintain 6 websites related to stormwater quality. • Updates will include appropriate Stormwater program documentation, articles developed, brochures, and calendar updates • Add new Speakers Bureau information	• Update with new information, as needed • Track total number of hits sites receive • Add Speakers Bureau information for availability of Coalition members to give presentations	Updated, as needed, Add Speakers Bureau by end of 2020	Coalition

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Public Notices & Public Meetings	• Continue public notices for public hearings and meetings where stormwater information and issues are discussed • Give attendees the opportunity to verbally comment for the record	• Public notice will be given, and public hearings or meetings will be held for activities such as County Drainage Board, Public Works Board, and Sanitary District Board meetings • Track using Programmatic Indicator #2	On-going	Coalition
Community Clean-up Events	• Partner with Keep America Beautiful and Trees, Inc. to conduct Community Clean-up Events • Clean-up areas will be identified by the event partners	• Partner, advertise, and conduct two events annually • Track using Programmatic Indicators #2 and #3	Twice annually	Coalition
Recycling Programs	• In addition to the Vigo County Solid Waste Management District (SWMD) collections described below, ISU, Rose Hulman, and Ivy Tech will continue to have their own in-house recycling programs • Continue to keep the ISU recycling program open to the public	• Track amount of material collected • Track number of recycling containers available to students	On-going	Coalition

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
SWMD Activities	• Support SWMD activities to educate school children and community members on the importance of pollution prevention as well as waste disposal and recycling programs • Support SWMD recycling and various waste collection events	• Promote on-going SWMD activities as needed • Hold 1 recycling and/or waste collection/Tox-away Day event per year • Track using Programmatic Indicators #3, #10, #11, and #12	On-going	Coalition
SWCD Activities	• Support SWCD activities to educate and encourage agricultural producers to use BMPs • Support SWCD activities to educate school children and community members on the importance of pollution prevention and recycling • Continue to work with the SWCD via the MOA to implement MCMs 1&2	• Promote on-going SWCD activities as needed • Include stormwater education information in annual "Ag Conservation Field Day" event • Include stormwater education in other agricultural events as appropriate • Track using Programmatic Indicators#1, #2, and #3	On-going	Coalition

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Rule 13 Public Participation List	• Update and maintain list of those groups and individuals that would be most likely to have an interest in the Co-permittees' Stormwater Program • Use Participation list to match volunteers to activities • Develop an email contact list of companies, groups, and individuals interested in participation • Develop spreadsheet to track activities and participants • Solicit volunteers via websites	• Update list on an on-going basis • Track using Programmatic Indicators #2 and #3	On-going	Coalition

CHAPTER 5

MCM #3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

327 IAC 15-13-14(a): *An MS4 operator shall develop an SWQMP that includes a commitment to develop and implement a strategy to detect and eliminate illicit discharges to the MS4 conveyance.*

5.1 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Rule 13 requires the development and implementation of a strategy to detect and eliminate illicit discharges to the MS4 conveyance, including illegal dumping into the MS4 conveyance. Problem areas must be located via dry weather screening or other means, the source must be determined, illicit connections must be removed or otherwise corrected, and the actions taken must be documented. All active industrial facilities within the MS4 area that discharge into the MS4 conveyance must also be documented. Through an ordinance or other regulatory mechanism, illicit discharges must be prohibited from entering the MS4 conveyances and appropriate enforcement procedures and actions are required.

All public employees, businesses, and the general public must be educated about the hazards associated with illicit discharges and the improper disposal of waste. The educational effort must include informational brochures and guidance for specific audiences and school curricula and the public reporting of illicit discharges and spills. In order to give the public alternatives to improper disposal of wastes, the MS4 entities must initiate or help coordinate existing recycling programs in the MS4 area for commonly dumped wastes, such as motor oil, antifreeze, and pesticides.

The Stormwater Illicit Discharge Detection and Elimination (IDDE) BMPs, outlined in **Table 5-1**, will be implemented by the Co-permittees in order to comply with the minimum requirements of this MCM. The Co-permittees' programs are designed to gain a thorough awareness of their separate storm conveyance system and thereby allowing the identification and elimination of illicit discharges entering the system. The program also establishes the legal, technical, and educational means needed to eliminate illicit discharges.

Table 5-1: Illicit Discharge Detection and Elimination BMPs

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Stormwater System Mapping	• The Co-permittees will enhance existing MS4 maps with locations, sizes, and types of outfalls as the IDDE Plan is implemented • New outfalls and conveyance systems will be added to the map for the appropriate jurisdiction	• Track using Programmatic Indicator #5 and #6	On-going	Co-permittees
Stormwater Educational Brochures	*This item, previously listed here, has been discussed within table for MCMs #1 and #2*			
IDDE Ordinance	• The Coalition will periodically review the IDDE language contained in the Stormwater Management Ordinances for needed updates and to ensure compliance with Rule 13.	• Continue to enforce Stormwater Management Ordinance • Review Ordinance at least once per permit term. • Track using Programmatic Indicator #9	On-going	Co-permittees
IDDE Plan	• The Coalition will review the IDDE Plan and update if necessary to reflect the proposed actions for illicit discharge detection and elimination in the current permit term • The Coalition will continue to implement the IDDE plan to detect, address, and eliminate illicit discharges into their MS4 conveyance system	• Use tools and procedures identified in the IDDE plan to screen all MS4 owned and operated outfalls once per permit term • Identify all active industrial facilities in Annual Reports • Track using Programmatic Indicators #7 and #8	• The IDDE Plan will be reviewed/ updated in 2020 • On-going IDDE Plan implementation	Co-permittees

CHAPTER 6

MCM #4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

327 IAC 15-13-15(a): *An MS4 shall develop a SWQMP that includes a commitment to develop, implement, manage, and enforce an erosion and sediment control program for construction activities that disturb one (1) or more acres of land within the MS4 area.*

6.1 CONSTRUCTION RUNOFF CONTROL

Rule 13 requires the development of an ordinance or other regulatory mechanism and establishment of a construction program that controls polluted runoff from construction activities that disturb one or more acres of land in the MS4 area. This construction program must include a permitting process, erosion control plan review process, site inspections, and enforcement. The permitting process must include a requirement for the construction project site owner to submit a copy of the permit application directly to IDEM. MS4 entities must provide an opportunity for their local SWCD to provide comments and recommendations to the MS4 operator on all individual projects that disturb 1 or more acres.

According to Rule 13, the construction program must include requirements for the implementation of appropriate BMPs on construction sites to control sediment, erosion, and other waste. MS4 entities must review and approve construction plans submitted by the construction site operator before construction activity commences. Procedures must be developed for site inspection and enforcement to ensure that BMPs are properly installed. These procedures must include a means to identify priority sites for inspection and enforcement and to receive and consider public inquiries, concerns, and information submitted regarding local construction activities. A tracking process must be implemented in which submitted public information is documented and then given to appropriate staff for follow up. MS4 area personnel responsible for plan review, inspection, and enforcement of construction activities shall receive annual training.

Compliance with this MCM requires MS4s to develop, implement, manage, and enforce an erosion and sediment control program for construction activities that disturb one or more acres of land within the MS4 area. **Table 7-1** in Section 7.0 provides a detailed description of the Construction and Post-Construction Site Stormwater Runoff Control BMPs to be implemented and identifies the measurable goals, programmatic indicators, timelines, priority areas, and responsible parties. These BMPs have been combined with the Post-Construction Site Stormwater Runoff Control BMPs (MCM #5) for ease of presentation and discussion.

CHAPTER 7

MCM #5: POST-CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

327 IAC 15-13-16(a): *An MS4 operator shall develop an SWQMP that includes a commitment to develop, implement, manage, and enforce a program to address discharges of postconstruction storm water run-off from new development and redevelopment areas that disturb one (1) or more acres of land or disturbances of less than one (1) acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one (1) or more acres of land within the MS4 area.*

7.1 POST-CONSTRUCTION RUNOFF CONTROL

Rule 13 requires the development of an ordinance or other regulatory mechanism and establishment of a post-construction program that controls polluted runoff from construction activities that disturb one or more acres of land in the MS4 area. This construction program must include a permitting process, erosion control plan review process, site inspections, and enforcement. The permitting process must include a requirement for the construction project site owner to submit a copy of the permit application directly to IDEM. MS4 entities must provide an opportunity for their local SWCD to provide comments and recommendations to the MS4 operator on all individual projects that disturb 1 or more acres.

According to Rule 13, the post-construction program must include requirements for the implementation of appropriate BMPs on construction sites to control sediment, erosion, and other waste after construction activities are complete. Procedures must be developed for site inspection and enforcement to ensure that BMPs are properly installed. These procedures must include a means to identify priority sites for inspection and enforcement and to receive and consider public inquiries, concerns, and information submitted regarding local construction activities. A tracking process must be implemented in which submitted public information is documented and then given to appropriate staff for follow up. MS4 area personnel responsible for plan review, inspection, and enforcement of construction activities shall receive annual training.

Compliance with this MCM requires MS4s to develop, implement, manage, and enforce an erosion and sediment control program for post-construction activities that disturb one or more acres of land within the MS4 area. Table 7.1 in provides a detailed description of the Construction and Post-Construction Site Stormwater Runoff Control BMPs to be implemented and identifies the measurable goals, programmatic indicators, timelines, priority areas, and responsible parties. These BMPs have been combined with the Construction Site Stormwater Runoff Control BMPs (MCM #4) for ease of

presentation and discussion. A detailed description of each BMP is provided in the table.

Table 7-1: Construction & Post-construction Site Stormwater Runoff Control BMPs

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Stormwater Management Ordinance	• Periodically review the active construction and post-construction site language contained in the stormwater ordinance for updates and to ensure compliance with current Rule 13 language	• Continue to update and enforce the stormwater ordinance • Revise and tailor ordinance language for each MS4	On-going	Co-permittees
Stormwater Technical Standards	• Periodically review the active construction and post-construction site language contained in the stormwater technical standard manual for updates or use IDEM Stormwater Quality Manual	• Continue to review and approve proposed new and redevelopment projects for compliance with the stormwater ordnance • Update standards as changes are identified	On-going	Co-permittees
Operation & Maintenance (O&M) Manuals	• Continue to require that O&M manuals are to be submitted for all post-construction BMPs identified as part of a project submittal package	• Continue to enforce ordinance requirements for O&M plan submittal and plan contents • Track using Programmatic Indicator #19	On-going	Co-permittees
Plan Review, Site Inspection, and Enforcement	• Continue their review of project plans, conducting site inspections, and actively enforcing the stormwater ordinance.	• Continue to review and approve proposed new and redevelopment projects • Continue to review 100% of construction plans and inspect sites randomly for compliance • Track using Programmatic Indicators #13, #14, #15, #17, #18, #19, and #20	On-going	Co-permittees

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Staff Training	• All staff responsible for plan review, site inspection, and enforcement related to construction and post-construction requirements will receive annual training	• Continue to provide relevant training to all staff involved in plan review, site inspection, and enforcement requirements for construction and post-construction MCMs • Track using Programmatic Indicator #2	Annually	Co-permittees
Erosion and Sediment Control and Post-construction BMP Tracking Database	• Continue tracking the status of construction projects, erosion and sediment control activities, and post-construction BMPs • Tracking will also be completed for violations, complaints, and public information requests	• Continue to track active construction and post-construction project sites • Track using Programmatic Indicators #17, #18, and #20	On-going	Co-permittees
Training for Construction Professionals	*This item, previously listed here, has been discussed within the MCMs #1 and #2*			
Procedure for Prioritizing Program Activities	• Continue inspecting 100% of all active construction sites • Continue to re-inspect and follow-up on sites having identified problem areas and/or concerns	• Continue to inspect 100% of sites once and follow up with sites having identified problem areas or concerns • Track using Programmatic Indicators #14 & #15	On-going	Co-permittees

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Inspection and Enforcement Documentation	• Continue to complete active construction site and post-construction BMP inspection forms	• Complete forms for active construction sites and post-construction BMPs inspected • Enter information into database • Track using Programmatic Indicators #14 & #18	On-going inspections for construction sites	Co-permittees
Co-permittees Rule 5 Compliance	• Continue to comply with Rule 5 on each Coalition owned and operated projects that disturb land equal to 1 acre or larger in size	• Continue to comply with Rule 5 on each entity's owned and operated projects	On-going	Co-permittees

CHAPTER 8

MCM #6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING

327 IAC 15-13-17(a): An MS4 operator shall develop an SWQMP that includes a commitment to develop and implement a program to prevent or reduce pollutant run-off from municipal operations within the MS4 area.

8.1 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

Rule 13 requires the development and implementation of a program to prevent or reduce polluted runoff from municipal operations within the MS4 area. The program must include written documentation of maintenance activities, maintenance schedules, and long-term inspection procedures for BMPs to reduce floatables and other pollutants discharged from the separate storm sewers.

Controls must be implemented for reducing or eliminating the discharge of pollutants from operational areas, including roads, parking lots, maintenance and storage yards, and waste transfer stations. Written procedures must be developed and implemented for the proper disposal of waste or materials removed from separate storm sewer systems and operational areas. New flood management projects must be assessed via written documentation for their impacts on water quality and existing flood management projects must be examined for incorporation of additional water quality protection devices or practices. MS4 entity employees must be properly trained on various topics such as herbicide and insecticide application and the function of BMPs. Such training must be documented in writing.

Table 8-1 provides a summary of the Pollution Prevention and Good Housekeeping BMPs to be implemented and identifies the associated measurable goals, programmatic indicators, environmental benefits, timeline, priority areas and responsible parties associated with each BMP. A detailed description of each BMP is provided in the table.

Table 8-1: Pollution Prevention and Good Housekeeping BMPs

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Maintenance Schedules Tracking	• Track maintenance activities associated with Good Housekeeping and Pollution Prevention • This will include items such as maintenance on oil/water separators, catch basin inserts, inspection reports, etc.	• Continue tracking maintenance activities and schedules	On-going	Co-permittees
MS4 Conveyance System Maintenance	• Co-permittees will continue program to inspect and maintain the MS4 conveyance systems within their jurisdictions	• Continue inspection and maintenance program • Prioritize maintenance needs based on inspections and make conveyance systems improvements as funding allows • Track using Programmatic Indicators #26, #27, #28, #29, and #32	On-going	Co-permittees
Street Sweeping Program	• Each Co-permittee maintains regularly scheduled street and parking lot sweeping and/or vacuuming operations	• Track using Programmatic Indicator #33	On-going	Co-permittees
Spill Prevention and Clean Up	• Implement secondary containment as appropriate • Require proper spill clean-up and proper disposal of used materials • Ensure that spill kits and relevant materials are in areas where spills are most likely to occur	• Coordinate with appropriate office or agency to ensure proper disposal of used materials • Utilize inspection forms to ensure secondary containment and spill kit placement is adequate • Track using Programmatic Indicator #24	On-going	Co-permittees

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Fertilizer and Pesticide Management	• Ensure fertilizer and pesticide contractors and/or staff are certified applicators through the OISC	• Utilize contractors certified by OISC • Track using Programmatic Indicator #25	On-going	Co-permittees
Canine Park Location	• Currently, the dog park has posted signage and rules to encourage proper disposal of pet waste • When proposed, the Co-permittees will review any projects for Canine Parks to ensure proper location away from waterbodies	• Track the number and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody • Track using Programmatic Indicator #34 when applicable	On-going	Co-permittees
Waste Disposal	• Dispose of waste or materials removed from separate storm systems and operational areas in a proper manner	• Determine if waste can be recycled, reused, or disposed of in a landfill • Continue to contract with private firms to perform waste disposal on appropriate items • Track using Programmatic Indicator #32	On-going	Co-permittees
Flood Management Projects	• Assess new MS4-owned projects for incorporation of water quality devices or practices	• Document that all new MS4-owned projects are assessed for incorporation of additional water quality devices or practices	On-going	Co-permittees

Best Management Practice (BMP)	BMP Description	Measurable Goals, Tracking, and Programmatic Indicators	Timeline	Responsible Party
Annual Good Housekeeping, & Pollution Prevention Staff Training	• Offer annual training to appropriate staff on good housekeeping and pollution prevention topics • Complete annual walk-through of MS4 facilities to follow-up on self-monitoring and to utilize as training.	• Continue annual training program • Track using Programmatic Indicators #2 and #3	Annually	Co-permittees
Stormwater Pollution Prevention Plans (SWPPPs)	• Update existing SWPPPs for MS4-owned facilities • Develop additional SWPPPs or SOPs for any new facilities or operations that have a medium or high potential to contaminate stormwater runoff • Include facility inspection sheets, employee training form, spill documentation, vehicle washing BMPs and maintenance schedules, drainage patterns, sand/salt storage facilities, trash clean-up, street and parking lot sweeping, etc.	• Utilize SWPPP and other documents to track inspections, training, etc. for each facility	On-going	Co-permittees

CHAPTER 9

RULE 13 MEASURABLE GOALS APPROACH

327 IAC 15-13-17(c)(5): An MS4 Operator shall develop measurable goals for this MCM. To comply with this measure, specific reduction percentages must be identified.

9.1 RULE 13 MEASURABLE GOALS APPROACH

The presumptive approach of implementing the Rule 13 program assumes that overall stormwater quality will improve each year by reducing the amounts of pollutants entering the conveyance system. Specific target outreach, reduction goal percentages, compliance goals, and/or implementation goals will be correlated to amounts of BMPs conducted, installed, or implemented, as well as, amounts of material collected from BMPs, and/or plans implemented. For example:

- Specific target outreach can focus on educating either a specific population sector or a pollutant of concern, thereby assuming that a knowledgeable public will be inclined to help reduce their impacts on pollutant loadings.
- Greater constituent participation will result in greater reductions of certain stormwater pollutants.
- When a certain amount of street sweeping material is collected, it is assumed that the unknown total amount of material entering the conveyance system is reduced by the amount collected.

Table 9-1 highlights the individual MCMs, the Rule 13 language associated with the development of specific target outreach, reduction goal percentages, compliance goals, and/or implementation goals for each MCM, and the approach taken by the Co-permittees to comply with the Rule language. Timelines and detailed goals for each BMP will vary and this information can be found in the individual MCM tables in previous section.

Table 9-1: Measurable Goals Approach Summary

MCM	Rule 13 Language	Co-permittee's Approach
Education/ Outreach *327 IAC 15-13-12(c)*	• Must identify specific target outreach **or** reduction goal percentages **and** timetables • Goals must address relevant targeted audience improvement: 1. Disposal practices 2. Cast storm drain cover installations 3. School curricula or website implementation 4. Outreach to every population sector 5. Educational material distribution	• **Specific target outreach** BMPs: Assessment of Public Awareness Stormwater Educational Brochures (Sector & Pollutant specific) K-12 Education Business & Industry Education Training for Construction Professionals Misc. Media Web Sites SWMD Activities SWCD Activities
Participation/ Involvement *327 IAC 15-13-13(c)*	• Must identify specific outreach **and** reduction goal percentages **and** timetables • Goals must address relevant community participation in: 1. Citizen panels 2. Community clean-ups 3. Citizen watch groups and drain marking projects 4. Public meeting notification	• **Specific outreach** BMPs: Storm Drain Marking Stormwater Community Watch Website Public Notices & Public Meetings Community Clean-up Events Recycling Programs Rule 13 Public Participation List • **Reduction goal percentages** Tracking: Tons of trash/debris collected Increase in participation *(survey, Committee, listing, meetings, complaints)*

MCM	Rule 13 Language	Co-permittee's Approach
IDDE *327 IAC 15-13-14(j)*	• Must identify specific outreach **and** reduction percentages **and** timetables • Goals must address relevant: 1. Collection system mapping 2. Regulatory mechanism implementation 3. Employee training 4. Household hazardous waste programs 5. Illicit discharge detection 6. Illicit discharge elimination	• **Specific outreach** BMPs: Stormwater System Map IDDE Ordinance IDDE Plan Stormwater Community Watch Website Storm Drain Marking SWMD Activities Staff Training • **Reduction percentages** Tracking: Outfalls with added information IDDE Ordinance enforcement IDDE Plan activities Complaints received Drains marked *(participants and groups involved)* Materials collected by SWMD Staff trained
Construction *327 IAC 15-13-15(h)*	• Must identify specific outreach, compliance, **and** implementation goal percentages **and** timetables • Goals must address relevant: 1. Regulatory mechanism implementation 2. Public informational request procedure implementation 3. Site inspection procedure implementation 4. Construction site operator compliance improvement	• **Specific outreach** BMPs: Staff Training Training for Construction Professionals • **Compliance goal** BMPs: Plan review, Site Inspection, and Enforcement BMP Tracking Database Inspection and Enforcement Documentation of Rule 5 Compliance • **Implementation goal** BMPs: Ordinance and Technical Standards Procedure for Prioritizing Program Activities

MCM	Rule 13 Language	Co-permittee's Approach
Post-Construction *327 IAC 15-13-16(f)*	• Must identify specific reduction percentages **and** timetables • Goals must address relevant: 1. Regulatory mechanism implementation 2. Planning and structural BMP strategies 3. New impervious surface reduction 4. Discharge quality improvement	• **Specific outreach** BMPs: Staff Training Training for Construction Professionals • **Compliance goal** BMPs: Ordinance and Technical Standards BMP Tracking Database Procedure for Prioritizing Program Activities Inspection and Enforcement Documentation • **Reduction percentages** Tracking: Review of Ordinance and Technical Standards Staff and Construction professionals attending training Development of a Post-Construction inspection and enforcement program, including forms, and tracking database
Pollution Prevention and Good Housekeeping *327 IAC 15-13-17(c)*	• Must identify specific reduction percentages **and** timetables • Goals must address relevant: 1. Catch basin cleaning and street sweeping procedures 2. Employee training 3. Recycling program implementation 4. Pesticide, fertilizer, and sand or salt usage reductions 5. Floatables reduction 6. Maintenance schedule for BMPs	• **Compliance goal** BMPs: Maintenance Schedules and Database Secondary Containment MS4 Conveyance System Maintenance Street Sweeping Program Salt and Sand Management Snow Disposal Areas Spill Prevention and Clean Up • **Reduction percentages** Tracking: Information collected from inspection reports Tons of material removed from MS4 Conveyance System Tons of salt/sand utilized Spill prevention and clean up materials provided, utilized, and associated training BMPs implemented in maintenance area and wash area

CHAPTER 10

PROGRAM COSTS

327 IAC 15-13-8(a)(9): *A summary of the current storm water budget, expected or actual funding source, and a projection of the budget for each year within the five (5) year permit term.*

10.1 ANNUAL IMPLEMENTATION COSTS BY MCM

This section highlights the cost of implementing the program described in this document. These estimates are taken from the Co-permittees' SWQMP Part A submitted in August 2018 and are based on the Co-permittees' experience in implementing their Stormwater Program during the first permit term. These are estimates of what the Co-permittees may spend on the program and should not be utilized for compliance purposes.

MCM #1 Public Education and Outreach and MCM #2 Public Participation and Involvement: The annual cost to implement this MCM is estimated to be up to $11,000. This funding will be utilized to coordinate and support educational activities, educational materials, and public events.

MCM #3 Illicit Discharge Detection and Elimination: The annual cost to implement this MCM is estimated to be up to $7,400. This funding will be utilized to conduct dry weather screening and stormwater outfall mapping efforts.

MCM #4 Construction Site Runoff Control and MCM #5 Post-Construction Stormwater Management: The annual cost to implement this MCM is estimated to be up to $103,000. Funding will be utilized to continue plan review, site inspections, and enforcement as well as ordinance and technical standards maintenance.

MCM #6 Pollution Prevention and Good Housekeeping: The annual cost to implement this MCM is estimated to be up to $6,500. Funding will be utilized to provide Good Housekeeping and Pollution Prevention training programs, to develop and maintain facility SWPPPs, and to conduct MS4 Facility Assessments.

Other Costs: In addition to the costs associated with MCMs 1 through 6, there are numerous additional annual costs associated with implementing the Co-permittees' Stormwater Program. These costs are associated with completing reports, purchasing office supplies and equipment, consulting fees, and the general coordination of the Co-permittees' Stormwater Program to ensure the program runs as efficiently as possible. **Table 10-1** summarizes the total program costs as identified above. All funding for this program

comes from a combination of general taxpayer funds and general facilities operating budgets.

Table 10-1: Total Program Costs*

Minimum Control Measure (MCM)	Nov. 2018-Oct. 2019	Nov. 2019-Oct. 2020	Nov. 2020-Oct. 2021	Nov. 2021-Oct. 2022	Nov. 2022-Oct. 2023	Total
Implement MCMs 1&2	$11,000	$11,000	$11,000	$11,000	$11,000	$55,000
Implement MCM3	$7,400	$7,400	$7,400	$7,400	$7400	$37,000
Implement MCMs 4&5	$103,000	$103,000	$103,000	$103,000	$103,000	$515,000
Implement MCM 6	$6,500	$6,500	$6,500	$6,500	$6,500	$32,500
Other	$135,000	$135,000	$135,000	$135,000	$135,000	$675,000
Total	**$262,900**	**$262,900**	**$262,900**	**$262,900**	**$262,900**	**$1,314,500**

*The costs identified in this section of the document are maximum estimates on what the Co-permittees may spend on their Stormwater Program over the next several years. Actual expenditures are likely to vary from those indicated above. The explanation of the stormwater programs and services listed in this section is intended to provide a broad-based overview of the Co-permittees' program for each MCM and is not a comprehensive explanation of the Co-permittees' Stormwater Program.

CHAPTER 11

SUMMARY

Implementation of the Co-permittees' Rule 13 required stormwater quality program will improve the overall quality of stormwater discharges entering into their separate storm sewer system. In order to successfully implement the Rule 13 program, the Co-permittees must pay attention to reporting requirements contained in the programmatic indicators and adhere to the developed timelines.

11.1 PROGRAMMATIC INDICATORS

Programmatic Indicators are defined by IDEM as any data collected by an MS4 entity that is used to indicate implementation of one (1) or more minimum control measures. Programmatic Indicators pertain to specific environmental gauges that focus on the impacts of stormwater runoff. IDEM utilizes the Programmatic Indicators to determine the degree of success achieved by the Co-permittees' stormwater management program. IDEM requires the identification of Programmatic Indicators and that they are grouped by corresponding MCM. IDEM further states that if an indicator is not applicable to the MS4 operator, then the operator shall provide rationale for the non-applicability. **Table 11-1**: Programmatic Indicators identifies and describes the Programmatic Indicators.

The Co-permittees will meet all indicators except Programmatic Indicators 22, 23, and 33. For Programmatic Indicators 22 and 23, the Co-permittees are not set up to track impervious and pervious areas nor retail gasoline outlets/refueling area storage tanks. All other Programmatic Indicators have been addressed in the tables within previous sections detailing BMPs for each MCM.

Table 11-1: Programmatic Indicators

MCM	Programmatic Indicator	Description
1 & 2	1	Number or percentage of citizens, segregated by type of constituent that have an awareness of stormwater quality issues
	2	Number and description of meetings, training sessions, and events conducted to involve citizen constituents in the stormwater program
	3	Number or percentage of citizen constituents that participate in stormwater quality improvement programs
3	4	Number and location of storm drains marked or cast, segregated by marking method

MCM	Programmatic Indicator	Description
	5	Estimated or actual linear feet or percentage of MS4 mapped and indicated on an MS4 area map
	6	Number and location of MS4 area outfalls mapped
	7	Number and location of MS4 area outfalls screened for illicit discharges
	8	Number and location of illicit discharge detected
	9	Number and location of illicit discharges eliminated
	10	Number of and estimated or actual amount of material, segregated by type, collected from HHW collections in MS4 area
	11	Number and location of constituent drop-off centers for auto fluid recycling
	12	Number or percentage of constituents that participate in HHW collections
4 & 5	13	Number of construction sites obtaining an MS entity issued stormwater runoff permit in the MS4 area
	14	Number of construction sites inspected
	15	Number and type of enforcement actions taken against construction site operators
	16	Number of, and associated construction site name and location for, public informational requests received
	17	Number, type, and location of structural BMPs installed
	18	Number, type, and location of structural BMPs inspected
	19	Number, type, and location of structural BMPs maintained or improved to function properly
	20	Type and location of nonstructural BMPs utilized
	21	Estimated or actual acreage or square footage of open space preserved and mapped in the MS4 area, if applicable
	22	Estimated or actual acreage or square footage of pervious and impervious surfaces mapped in the MS4 area
	23	Number and location of new retail gasoline outlets or municipal, state, federal, or institutional refueling areas, or outlets or refueling areas that replaced existing tank systems that have installed stormwater BMPs
6	24	Number and location of MS4 entity facilities that have containment for accidental releases of stored polluting materials
	25	Estimated or actual acreage or square footage, amount, and location where pesticides and fertilizers are applied by a regulated MS4 entity to places where stormwater can be exposed within the MS4 area
	26	Estimated or actual linear feet or percentage and location of unvegetated swales and ditches that have an appropriately sized vegetated filter strip
	27	Estimated or actual linear feet or percentage and location of MS4 conveyances cleaned or repaired
	28	Estimated or actual linear feet or percentage and location of roadside shoulders and ditches stabilized, if applicable
	29	Number and location of stormwater outfall areas remediated from scouring conditions, if applicable
	30	Number and location of deicing salt and sand storage areas covered or otherwise improved to minimize stormwater exposure

MCM	Programmatic Indicator	Description
	31	Estimated or actual amount, in tons, of salt and sand used for snow and ice control
	32	Estimated or actual amount of material by weight collected from catch basin, trash rack, or other structural BMP cleaning
	33	Estimated or actual amount of material by weight collected from street sweeping, if utilized
	34	If applicable, number or percentage and location of canine parks sited at least one hundred fifty (150) feet away from a surface waterbody

11.2 TIMELINE

Information related to the timeline for the implementation of each BMP is included within the tables in previous sections outlining each MCM.

11.3 NEXT STEPS

As progress is made in implementing the Vigo County Storm Water Quality Management Plan, elements contained in required annual program reports, monthly construction reports, and on-going water quality characterizations will need to be tracked. Rule 13 does provide program flexibility in that if a BMP proves to be ineffective or infeasible, then the Co-permittees may change their program and incorporate a different BMP.

11.3.1 **Annual Reports**

Beginning in the second permit term and going forward, MS4s are required to submit their Annual Reports in the 2nd and 4th years of the permit term. For the second permit term, the Co-permittees' Annual Reports will be due on October 30, 2020 and 2022. These Annual Reports must include information from the time the last Annual Report was submitted to the current reporting period. These reports must account for:

- Progress towards development, implementation, and enforcement of all MCMs, including updated programmatic indicator data;
- A summary of complaints received with follow-up investigation results related to stormwater quality issues;
- Updated measurable goals;
- Stormwater BMPs installed or initiated;
- Follow-up or additional water quality characterization information;
- An updated active industrial facilities list;

- Implementation problems encountered, including BMP changes due to ineffectiveness or infeasibility;
- Funding sources and expenditures;
- Changes to MS4 area boundaries, including land areas added to the MS4 area via annexation or other similar means;
- Identified stormwater quality improvement projects; and
- Updated receiving water information.

11.3.2 **Monthly Construction Site Activity Reports**

During previous permit term, monthly construction reports were required to be submitted to IDEM. Despite the submittal waiver, MS4s are still required to document any new permit applications that are received as well as any new notices of termination that are issued. Monthly documentation must include:

- A list of all construction and post-construction project site names;
- Project site addresses;
- Project site construction duration timeframes; and
- An indication of enforcement actions undertaken.

11.3.3 **Agency Inspections**

To evaluate Rule 13 permit compliance, IDEM may periodically inspect the Co-permittees and audit their stormwater program. The MS4 Operator for the Co-permittees should be prepared to answer questions and provide documentation of program elements. The point of contact for such inspections and audits will be the Terre Haute Wastewater Utility Office. This office may call upon responsible entities identified in the BMP tables for assistance in such inspections and audits. IDEM may request data to facilitate the identification or qualification of pollutants that may be released to the environment from an MS4 conveyance or to determine effectiveness of the MCMs.

11.3.4 **On-going Water Quality Characterization**

As new water quality information becomes available and updates are made to data sources that were reviewed as part of the Co-permittees' SWQMP – Part B: Baseline Water Quality Report, The Co-permittees will review that information and adjust their Rule 13 program accordingly.

11.3.5 **Rule 13 Permit Renewal**

To Permit renewal applications are due at least sixty days prior to the expiration date for the Rule 13 permit. The Co-permittees' renewal will be due in early August 2023. Permit coverage under the renewal NOI will begin on the date of expiration from the previous five-year permit term. IDEM

may reissue permits on a watershed basis, which may change these dates. Subsequent permits will require the Co-permittees to maintain and, where possible, improve their performance in implementing the six MCMs.

CHAPTER 12 REFERENCES

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