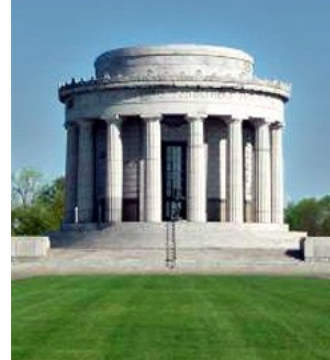


Stormwater Quality Management Plan

Prepared for: City of Vincennes



Indiana Department of Environmental Management
Municipal Separate Storm Sewer System (MS4)
General Permit (INR040034)

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CHAPTER 1 - INTRODUCTION

This report presents the Stormwater Quality Management Plan (SWQMP), as required by the Municipal Separate Storm Sewer System (MS4) General Permit for the City of Vincennes, under the Indiana Department of Environmental Management (IDEM) Permit Number INR040034, effective December 18, 2021. Permit language outlining the general requirements for this portion of the MS4 permit are as follows:

GENERAL PERMIT COVERAGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

4.0 PERFORMANCE REQUIREMENTS AND PROGRAM IMPLEMENTATION

All permittees must comply with this permit to demonstrate that all discharges authorized under this permit are managed to meet numeric and narrative water quality standards to the Maximum Extent Practicable (MEP), with compliance required upon beginning such a discharge. For stormwater discharges, implementation of the stormwater quality management plan (SWQMP) and appropriate stormwater management measures and principles is considered compliance with this requirement.

4.1 General Performance Requirements

- (a) A designated MS4 entity is required to administer the program in accordance with items (b) through (k).
- (b) A county designated as a MS4 may elect to administer specific program components, to the extent of its authority, to any additional portion of the county. However, a county MS4 entity, at minimum must:
 - (1) Identify the area that it will administer the program as delineated to the nearest political township or section.
 - (2) Identify the program component(s), if applicable, that will be administered beyond the mapped UA.
 - (3) Administer construction and post-construction ordinances or other regulatory mechanism required by this permit county wide, excluding incorporated cities and areas for which the County MS4 entity does not have jurisdiction.
 - (4) Manage all facilities in accordance with the Pollution Prevention and Good Housekeeping minimum control measure (MCM) that are owned and/or operated by the MS4 entity in accordance with this permit, regardless of whether the facility is within the mapped UA.
- (c) Maintain a list of entities/individuals, including contact information, that are responsible for administering each minimum control measure and update as changes occur. A MS4 entity may elect to administer the program through legal agreements and/or memorandums of understanding. These entities include but are not limited to soil and water conservation districts (SWCDs), co-permitted MS4 entities, and other departments within the organizational structure of the MS4 entity.
- (d) Provide training opportunities for MS4 staff implementing the program that is specifically targeted to their responsibilities. At a minimum, each MS4 employee responsible for implementing the program must receive 12 hours of annual training with at least eight (8) of the twelve (12) hours of training distributed amongst the specific minimum control measure(s) for which they are responsible for administering.
- (e) Maintain and evaluate potential overall program performance improvement opportunities in implementing the six (6) MCMs.
- (f) A MS4 entity that does not have the legal authority to implement one (1) or more of the six (6) MCMs must do one of the following:
 - (1) Establish policy and procedures to administer the MCM.
 - (2) Obtain the legal authority or develop a regulatory mechanism.
- (g) MS4 entities operating conveyances are responsible for complying with the provisions of this permit. Any MS4 entity causing or contributing to a violation of any provisions of this permit shall be subject to IC 13-30 and IC 13-14-10.
- (h) When a total maximum daily load (TMDL) is approved by the U.S. Environmental Protection Agency for any waterbody into which a MS4 discharges, the MS4 entity must review and modify the SWQMP and water quality characterization report (WQCR), as necessary.

- (i) MS4 entities renewing permit coverage must:
 - (1) Review and update as necessary existing ordinances and/or regulatory mechanisms in accordance with this permit no later than 730 days after submittal of the notice of intent (NOI). Upon request, an extension beyond 730 days may be granted. The MS4 must:
 - (A) Demonstrate the ordinance update is in process.
 - (B) Provide quarterly updates on completion of this requirement.
 - (2) Review and revise the SWQMP within the six months of permit coverage in accordance with this permit and the requirements specified in Section 4.2 of this permit.
- (j) Newly designated MS4 entities must develop a SWQMP in accordance with Section 4.2 of this permit and the deadlines established by this permit and for each of the minimum control measures.
- (k) Conduct an annual review of the SWQMP and as necessary update the plan to ensure it reflects the goals of the MS4 program are being met.

4.2 Stormwater Quality Management Plan (SWQMP) General Requirements

The SWQMP must be developed, implemented, and maintained to include provisions that will reduce the discharge of pollutants from the MS4 to protect water quality, human health, and the biotic community.

- (l) The SWQMP must, at a minimum include:
 - (1) The jurisdictional boundaries of the MS4 entity presented in a geographical information system (GIS) compatible format to identify the boundaries of the MS4 by the end of the first year of permit coverage. If the SWQMP includes several MS4 entities as a co-permittee, the boundaries must be identified by each MS4 entity.
 - (2) An evaluation of the stormwater system for the MS4 area of all structural stormwater management measures as identified in Section 4.4 (d), 4.4(e), 4.6 (d) through (f) and Section 4.7 (g).
 - (3) Program goals that are established and required by this permit and others identified by the MS4 entity to address local stormwater resource issues within their jurisdiction. If a goal listed in this permit is no longer applicable, or if another indicator is used, the MS4 entity must provide rationale to justify its use.
 - (4) A detailed program description for each minimum control measure (MCM) referenced in Sections 4.3 through 4.7 including, but not limited to:
 - (A) A timetable for SWQMP implementation for each MCM and the WQCR.
 - (B) A summary of measurable goals for each MCM and a discussion of environmental impact.
 - (C) Individuals that are responsible for implementing each MCM including their contact information.
 - (5) Identification of the MS4 entity responsible for each MCM including a geographical representation of the area for which the MS4 entity is responsible for implementation.
 - (6) Annual updates based on changes in priorities, technology, goals, etc.

Additional specific requirements are outlined in each chapter of this report. The purpose of this report is to identify the implementation plan for the Minimum Control Measures (MCM) that serve as the focus of the City's SWQMP.

This report is organized to follow the order of the requirements identified under Section 4.0 of the MS4 General Permit and includes the following sections:

- **Chapter 1:** *Introduction* – Provides an overview of this document.
- **Chapter 2:** *MS4 Boundary Description* – Provides both a mapped and narrative of the City's MS4 area.
- **Chapter 3:** *Public Education, Outreach, Participation, and Involvement MCM*
- **Chapter 4:** *Illicit Discharge Detection and Elimination MCM*
- **Chapter 5:** *Construction Site Stormwater Run-off MCM*
- **Chapter 6:** *Post-Construction Stormwater Run-off MCM*
- **Chapter 7:** *Municipal Operations Pollution Prevention & Good Housekeeping MCM*

CHAPTER 2 - MS4 BOUNDARY DESCRIPTION

The City of Vincennes's MS4 Boundary corresponds to its corporate limits (i.e. area of jurisdiction). This area is shown in the Figure 1 below. (The following description is approximate in nature and is intended to represent the city limit line as exists on 12/20/2022). Note that all distances and directions are approximate.

Beginning at a point on the south bank of the Wabash River, 1800 feet southwest of Willow Street,
thence southeasterly to River Road;
thence southwesterly 1800 feet along River Road to the southwest boundary line of the City of Vincennes tract;
thence northeasterly along the southeast boundary line of said tract to the old City Ditch;
thence southeasterly along the old City Ditch 5000 feet to Fifteenth Street;
thence northeasterly along Fifteenth Street to Watson Avenue;
thence southeasterly along Watson Avenue to Emison Street;
thence southwesterly along Emison Street 725 feet to a point 415 feet from Autumn Ridge Drive;
thence southeasterly parallel to and 415 feet distant from said Autumn Ridge Drive to Niblack Road;
thence northeasterly along Niblack Road 690 feet to the west boundary line of the Presidential Estates tract;
thence southeasterly 825 feet along said boundary to the south boundary line of said tract;
thence northeasterly 700 feet along said south line of said tract to the easterly line of said tract;
thence northerly along the east line of said tract to Niblack Road;
thence northwesterly along Niblack Road to Willow Street;
thence southeasterly 200 feet to the south line of south line of the US Dept. of Labor lot;
thence easterly 350 feet along the south line of said lot;
thence northerly 250 feet along the east line of said lot;
thence westerly 300 feet to Willow Street;
thence northwesterly along Willow Street to its intersection with the railroad sling near Eighteenth Street;
thence northwesterly along said railroad to the intersection with the east line of the main line railroad;
thence southeasterly along said main line railroad its intersection with US Highway 41;
thence northeasterly along US Highway 41 to Main Street;
thence southeasterly along Main Street to the southeast right of way of Highway 41;
thence southwesterly 250 feet along said right of way to a point 280 feet from the center of Main Street;
thence southeasterly 550 feet on a line parallel with Main Street to a point on the line between Division B Commons Lots 42 & 47;
thence southwesterly along said line to the west corner of said Lot 47;
thence southeasterly 1000 feet along the line between Division B Commons Lots 47 & 48 and Lots 85 & 86 to a point 295 feet from Ramsey Road;
thence northeasterly 430 feet to a point 400 feet from Ramsey Road;
thence southeasterly to Ramsey Road;
thence northeasterly along Ramsey Road to Main Street Road;
thence southeasterly 4060 feet along Main Street Road to the southeast line of Moran's Subdivision;
thence northeasterly 120 feet;
thence northwesterly 420 feet to a point 70 feet distant from Bauer Drive;
thence northeasterly to Hart Street;
thence southeasterly 755 feet along said Hart Street;
thence northeasterly 475 feet along the southeastern line of Heritage Southern Baptist Church;
thence northwesterly 65 feet along the northeastern boundary line of said church;
thence northeasterly 790 feet to the northeast line of Survey 24;
thence northwesterly 3000 feet along said northeast line of Survey 24;
thence northeasterly 2700 feet to a point on the northeast line of Survey 43;
thence southeasterly along said southeasterly line to Kelso Creek;
thence northerly along Kelso Creek to State Road 61;
thence northwesterly along State Road 61 to a point 230 feet from Spruce Drive;
thence northeasterly 870 feet to Kelso Creek;
thence northerly and northwesterly along Kelso Creek to its intersection with the northwest right of way of Highway 41;
thence northerly along said right of way to its intersection with the south right of way of Washington Avenue/Old Highway 50;

thence easterly along said right of way to the easterly right of way of US Highway 41;
thence southeasterly 1600 feet along said easterly right of way;
thence northeasterly 1025 feet to point 360 feet from Old Highway 50;
thence southeasterly to Hebert Road (CR SE 200E);
thence southeasterly along Hebert Road to the line between Ridgeview Heights Subdivision and Hyde Park Subdivision;
thence northeasterly along said line to Old Highway 50;
thence northwesterly along Old Highway 50, 1765 feet;
thence northeasterly to the northeasterly railroad right of way;
thence southeasterly along said railroad right of way to the southeast corner of Lot 25 in Reeds Subdivision;
thence northerly to Old Wheatland Road;
thence westerly along Old Wheatland Road to the eastern corner of Lot 1 in said Reeds Subdivision;
thence northwesterly along the northeast line of said Lot 1 to the north corner of said lot;
thence westerly along said Reeds Subdivision to the north corner of Lot 12 in said subdivision;
thence northwesterly to the south corner of Lot 20 in Eastgate Second Subdivision;
thence northeasterly along the southeast side of said Eastgate Second Subdivision to a tributary of Mill Creek;
thence northwesterly along said tributary 390 feet to Mill Creek;
thence northwesterly along said Mill Creek to its intersection with Old Bruceville Road;
thence northeasterly along said Old Bruceville Road to Hillcrest Extension Road;
thence southeasterly 240 feet along Hillcrest Extension Road to the south corner of the nursing home tract;
thence northeasterly along said tract to the east corner;
thence northwesterly along said nursing home tract to Old Bruceville Road;
thence southwestly along Old Bruceville Road to Hillcrest Road;
thence northwesterly along said Hillcrest Road to its intersection with the southeast right of way of Highway 41;
thence southwestly along said right of way to the west corner of Lot 103 in Daleview Estates Subdivision Section 4A;
thence southeasterly 1325 feet to a point 215 feet from Old Bruceville Road;
thence southwestly parallel with Old Bruceville Road to Ottensmeyer Drive;
thence around said Ottensmeyer Drive to the northeast line of Lamor Acres Second Subdivision;
thence northwesterly along said northeast line to the southeast right of way of the US Highway 41 and US Highway 50 interchange;
thence southwestly along said right of way to the northerly right of way of Old Wheatland Road;
thence westerly along said right of way to the westerly right of way of said US Highway 41;
thence northwesterly along the right of way of said US Highway 41 and US Highway 50 interchange to Old Wheatland Road;
thence northwesterly to the right of way of said Highway interchange and Executive Boulevard;
thence northeasterly along said Highway 41 & 50 right of way to Hillcrest Road;
thence along the southwest right of way of Highway 50 to the old Penn Railroad right of way;
thence northeasterly along said railroad right of way to the east corner of the Squirrel Creek tract;
thence northwesterly along the northeast line of said tract to Old State Road 67;
thence continuing along the same alignment to the dead end of Kylee Drive;
thence southwestly 200 feet parallel with Old State Road 67;
thence along the northern boundary of the Church of Latter Day Saints to Old US Highway 41;
thence said Old US Highway 41 to the southwest corner of said church lot;
thence northeasterly 200 feet along the southern border of said church lot;
thence southeasterly to Old State Road 67;
thence along said State Road 67 to the southwest line of said Squirrel Creek tract;
thence southeasterly along the southwest line of said tract to the Penn Railroad right of way;
thence southwestly along said right of way to the eastern property line of the Knox County Highway Garage;
thence southeasterly 540 feet along said Highway Garage eastern boundary line;
thence southwestly 210 feet;
thence southerly 400 feet;
thence southwestly 100 feet;
thence northwesterly 500 feet;
thence southwestly 250 feet;
thence southerly 400 feet to the eastern corner of the Lincoln Trail Decorating Center;
thence westerly to Old US Highway 67;

thence southerly to North Second Street;
thence southwesterly 1660 feet along Second Street;
thence northwesterly to the Penn Railroad right of way;
thence southwesterly along said railroad right of way;
thence southeasterly to Second Street;
thence southwesterly along Second Street to Niblack Boulevard;
thence northwesterly 1050 feet along Niblack Boulevard;
thence northeasterly 1275 feet to the C E & I railroad right of way;
thence northwesterly 250 feet along said right of way to an unnamed creek;
thence northwesterly along said unnamed creek to Old Terre Haute Road;
thence southwesterly along Old Terre Haute Road to the extension of Minneapolis Avenue;
thence northwesterly along said extension of Minneapolis Avenue to the Wabash River;
thence southwesterly along the Wabash River to the point of beginning.



Figure 2-1. Vincennes MS4 Boundary (2022)

CHAPTER 3 - PUBLIC EDUCATION, OUTREACH, PARTICIPATION & INVOLVEMENT MCM

This chapter presents the Public Education, Outreach, Participation and Involvement Minimum Control Measure (MCM) section of the MS4 General Permit requirements for the City of Vincennes. Permit language outlining the requirements for this section of the MS4 permit are as follows:

GENERAL PERMIT COVERAGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

4.3 SWQMP, Public Education, Outreach, Participation and Involvement MCM

A MS4 operator must develop measurable goals and implement a public education, outreach, and participation and involvement program that must include strategies to inform identified constituent groups about the impacts of stormwater run-off. MS4 entities renewing permit coverage, must assess program requirements and goals from the previous permit, modify as necessary, and implement the requirements of this permit. A MS4 entity, at a minimum must develop and implement a strategy to achieve the requirements within specific deadlines as outlined in this permit. The MS4 is required to:

- (a) Develop or update and revise a plan to:
 - (1) Identify target constituents and develop and/or update a plan for public education and involvement.
 - (2) Identify at least three (3) community wide stormwater quality issues in the first year of permit coverage targeting at least one event during the permit cycle to each of the following groups:
 - (A) Construction.
 - (B) Residential.
 - (C) Commercial and industrial.
 - (3) Conduct a minimum of two (2) public events annually or work collaboratively with other entities to achieve this requirement.
 - (4) Develop educational materials for distribution and outreach opportunities for constituents.
 - (5) Provide annual training for builders, developers, contractors, engineers, etc. related to the construction site run-off and post-construction MCMs. The training may be completed in cooperation with other entities.
- (b) Develop and implement a program for educating public employees, schools, businesses, and the general public about illicit discharges and proper disposal of waste. The educational effort must include, but is not limited to:
 - (1) Informational brochures and guidance documents that target specific audiences.
 - (2) An outreach plan for distribution of educational materials.
- (c) Create, revise or update a stormwater public information web page or links to direct the public to a location that contains the required information. Update the web page at least annually and as necessary to ensure required information is current. At a minimum the web page must include:
 - (1) A location for the public to report stormwater quality issues.
 - (2) Information and resources to educate visitors to the site.
 - (3) MS4 stormwater ordinances.
 - (4) Stormwater fees and rates (if applicable).
 - (5) MS4 program information, including the SWQMP, annual reports, and other information that informs citizens of activities of the MS4 entity.
- (d) Maintain a list of all public education materials developed and used throughout the permit cycle, including those resources from existing programs.

- (e) Report stormwater program updates to elected officials or an advisory board annually.
- (f) Complete and sign a certification form as a newly designated MS4. Submit the certification form to IDEM once the program has been developed or one hundred and eighty (180) days from the date the initial NOI submittal is received by IDEM, whichever is earlier.
- (g) Implement and assess the program annually and update goals as necessary. Describe changes in public awareness resulting from implementation of the program.
- (h) Report progress in an annual report (Section 8.0) that at a minimum includes:
 - (1) Status of measurable goals, program requirements, compliance schedules, and timetables for this MCM. If objectives are not being met for a specific program element, explain the implementation problems encountered, and changes made to resolve problems identified.
 - (2) A list of each public participation and outreach events and activities conducted, a description of the activity, an estimate of the number of attendees, and an assessment if the goals and objectives were met.
 - (3) The number and types of construction and/or post-construction stormwater training opportunities that were provided to contractors, developers and builders, property owners (commercial, industrial, residential, homeowner associations, and other targeted entities during the reporting period.
 - (4) Documentation that presentations were made to elected officials or boards.
 - (5) Describe each targeted audience selected and how they were reached during the reporting period and describe behavioral changes observed.
 - (6) A list of all public education materials used during the reporting period.

3.1 INITIAL PROGRAM EVALUATION

The City of Vincennes has existing activities that are relevant to stormwater quality and that the City desires to take credit for in its SWQMP. A summary of existing activities is presented below:

The City of Vincennes has not historically distributed public education and outreach materials regarding stormwater pollution or stormwater pollution prevention. The City does have distribution methods in place that can be used to distribute stormwater education materials. Vincennes Water Utilities has a web page www.vinutilities.com which is used to distribute educational materials. Text is added to utility bills for promotion of events and/or information on stormwater topics. Additionally, the Vincennes Water Utilities' website has links to the stormwater ordinance, technical manual, and a review checklist for Stormwater Pollution Prevention Plan (SWPPP) for construction sites. The Mayor also distributes a brief weekly address from the website and to e-mail subscribers which addresses community events in the City of Vincennes.

The City of Vincennes currently has a monthly radio slot available called "Knox County Today." Periodically, the MS4 Coordinator discusses various topics related to stormwater such as leaf collection, recycling, Household Hazardous Waste (HHW) disposal, and other MS4 programs.

The City has implemented an agreement with the Knox County Solid Waste Management District (KCSWMD) to handle most of the Public Education, Outreach, Participation and Involvement measurable goals. The KCSWMD participates in community events by distributing brochures and literature on stormwater information. Some events include Earth Day, Drug Toss collection, HHW collection, school seminars, and the Knox County Fair. Specifically, City Wide Cleanup is an important annual event which helps to raise awareness and involve the community in keeping Vincennes and its water bodies clean. The event is hosted and publicized by Burkhardt insurance in conjunction with the Knox County Chamber of Commerce. The City of Vincennes helps with advertisement and participates in the cleanup efforts.

A local school group has conducted volunteer stream monitoring on Kelso Creek as part of the Hoosier Riverwatch program (this data was used in the Water Quality Characterization Report). Through the agreement with KCSWMD, school programs are highly targeted for education as they are good targets for public involvement/participation activities. These programs are ongoing as part of the City's effort to educate young students and promote awareness and participation.

Vincennes Water Utility website has a site that allows the general public to submit information when they know about a water quality issue or an illicit discharge <https://vinutilities.com/report-a-polluter/>. This form goes directly to the MS4 Coordinator for response. Additionally, City of Vincennes website allows for general public to sign up for volunteer opportunities <https://www.vincennes.org/dev/news/volunteer-vincennes/>

3.2 PROGRAM DESCRIPTION AND MEASUREABLE GOALS

Public education is an important topic for many cities to distribute information to the public regarding stormwater issues. The City has implemented an agreement with the Knox County Solid Waste Management District (KCSWMD) to handle most of the Public Education, Outreach, Participation and Involvement measurable goals (<https://knoxcountyrecycling.org/>). The KCSWMD participates in community events by distributing brochures and literature on stormwater information. Some events include Earth Day, Drug Toss collection, HHW collection, school seminars, and the Knox County Fair. The KCSWMD also provides free in-school programs focused on encouraging responsible environmental stewardship. They also publish a newspaper entitled Trash Talk to educate students about local programs and facilities that reinforce the KCSWMD's waste reduction and recycling message. In order to reach all sectors of the Vincennes community, the City makes use of available media outlets such as the Vincennes Water Utilities website (www.vinutilities.com), messaging on utility bills, and through the radio program "Knox County Today." Currently, the stormwater ordinance, technical manual, and other stormwater information can be found on the Vincennes Water Utilities website.

The City of Vincennes also has the ability to add messaging text to all utility bills sent to residents. The City often uses this method to advertise HHW collection. A spring message includes information on lawn care and fertilizers and a fall message includes information on leaf collection and recycling.

Education through community involvement is also necessary to inform the public of stormwater topics. The City of Vincennes currently has a recycling program with available drop-off locations and free curbside pick-up available to all City residents. Promotion of these programs can be accomplished by sending mailers and spreading information through local media to gain exposure. Incorporating educational programs with existing community functions and utilizing surveys helps to gauge public knowledge and interest. From this baseline, further programs can be developed while providing a hotline for inquiries and concerns. A combination of all of these techniques will ensure education is passed along to all sectors of the community, based on the current baseline knowledge.

In order to encourage to the public to report any complaints about water quality, the City has established the Report-A-Polluter program (<https://vinutilities.com/report-a-polluter/>). An input form on the City website and a hotline has been put in place. The number, 812-316-0279, provides a 24-hour answering service where residents can report a complaint. A live person answers this line during regular business hours. The program is advertised prominently in the graphics on the Vincennes Water Utilities' camera van as well as other outlets. A City staff member will respond to the messages including forwarding information to the appropriate entity and responding to the concerned resident, if requested.

The City of Vincennes does not plan to use the storm drain marking plan to involve citizens. Due to safety concerns for the public as well as potential liability for the City, volunteers will not be used for this activity. Instead, the water/sewer employees will mark any existing storm drains required for retrofit. Additionally, all new City-owned construction is required to include marked storm drains. By installing new marked storm drains and providing retrofit storm drains (by City employees only), the message is still effective at informing the public that all storm sewers drain to a waterway.

The following BMPs are proposed to address the City's goals, each identified with the prefix "PE/PI" for Public Education, Outreach, Participation, and Involvement:

PE/PI – 1: Identify target constituents (Assess the General Public's Existing Awareness Level of Stormwater Issues)

Target Audience: The City of Vincennes residents
Target Topics: General stormwater issues to determine public awareness
Measurable Goal: Conduct an updated stormwater survey by the end of this new permit term.
Frequency: Once during the five (5) year permit term

PE/PI – 2: Identify three (3) community wide stormwater quality issues

Target Audience: The City of Vincennes residents
Target Topics: General stormwater, waste reduction, reuse, recycling, Household Hazardous Waste (HHW), illicit discharges
Measurable Goal: Assess results of the survey, complaint hotline topics, and educational materials in conjunction with the KCSWMD to determine three (3) stormwater quality issues to be addressed in subsequent years (see PE/PI-3).
Frequency: Year 1 of permit term

(A) Construction – Concrete washout and overall lack of compliance.

(B) Residential – Pet waste handling and disposal. Grass clippings

(C) Commercial and industrial – Material storage and trash disposal

PE/PI – 3: Conduct one (1) event with each target audience

Target Audience: Construction, Residential, and Commercial/Industrial professionals
Target Topics: One of the three (3) topics identified in PE/PI-2.
Measurable Goal: Conduct one (1) event related to each of the three (3) target audiences within the permit term.
Frequency: Once during the five (5) year permit term

PE/PI – 4: Promote Stormwater Awareness at two (2) community Events

Target Audience: Attendees of existing environmental education functions such as Earth Day, etc.
Target Topics: General stormwater quality information booths, environmental storm drain castings, recycling, Household Hazardous Waste (HHW), illicit discharges
Measurable Goal: Display at least two (2) stormwater booths at annual events, promoting the use of, and explaining the relevance of various stormwater pollution prevention techniques through agreement with the KCSWMD.
Frequency: Annually

PE/PI – 5: Develop and Distribute Public Information Materials

Target Audience: The City of Vincennes residents/students

Target Topics: Green landscaping, household hazardous waste, drinking water supply protection, West Nile Virus, stormwater pollution (pesticide and fertilizer application), pet waste disposal, and minor car maintenance

Measurable Goal: Produce and distribute at least two (2) fact sheets annually through KCSWMD programs and events. Also utilize utility bill messaging at least once per year during this new permit term. Continue to monitor complaint hotline and follow up on citizen initiated concerns.

Frequency: Annually

PE/PI – 6: Provide training related to Construction Site Run-off and Post-Construction MCMs

Target Audience: Builders, Developers, Contractors, Engineers, etc.

Target Topics: Construction Site Run-off and Post-Construction MCMs

Measurable Goal: Conduct an annual training for contractors which focuses on the new construction site general permit, post-construction BMPs. Vincennes will look for opportunities to jointly conduct this training with other MS4s or state-wide organizations (i.e. Indiana MS4 Partnership) to increase exposure.

Frequency: Annually

PE/PI – 7: Develop and implement a program for educating about illicit discharges and proper disposal of waste

Target Audience: Public employees, schools, businesses, and the general public

Target Topics: Illicit Discharges and Proper Waste Disposal

Measurable Goal: Inform the public regarding proper disposal and recycling of hazardous waste by distributing brochures and advertising using the local media, outlining available recycling drop-off centers and collection days in the area. Continue to utilize agreement with KCSWMD to conduct educational seminars/events in the classrooms.

Frequency: Annually

PE/PI – 8: Post Public Education Materials on the City Website

Target Audience: The City of Vincennes residents

Target Topics: Stormwater Quality

Measurable Goal: Continue to post information/progress on the City of Vincennes and the Vincennes Water Utility websites with stormwater related public information, citizen reporting method, ordinances, fees, rates, the SWQMP, volunteer activities, and annual reports.

Frequency: Annually

PE/PI – 9: Maintain a list of public education material

Target Audience: The City of Vincennes residents

Target Topics: Stormwater Quality

Measurable Goal: Re-evaluate available education material to determine whether updated resources should be obtained. This includes a review of any problematic issues in the City (i.e. concrete disposal, dumping, etc.).

Frequency: Annually

PE/PI – 10: Report program updates to elected officials

Target Audience: The City of Vincennes Elected Officials

Target Topics: MS4 Program

Measurable Goal: Present annual report to Elected Officials yearly at Council meeting and address any questions or concerns about the program.

Frequency: Annually

PE/PI – 11: Assess MS4 Program and update goals as necessary

Target Audience: N/A

Target Topics: MS4 Program

Measurable Goal: Review current program, MCMs, and BMPs and adjust as necessary to determine whether they are effective at achieving the goals of the program.

Frequency: Annually

PE/PI – 12: Report MS4 program progress in the Annual Report

Target Audience: IDEM

Target Topics: MS4 Program

Measurable Goal: Prepare program progress evaluation in the Annual Report and submit to IDEM and post on the website.

Frequency: Annually

PE/PI – 13: Continue Storm Drain Marking

Target Audience: City of Vincennes Residents

Target Topics: Stormwater Quality, illicit discharges

Measurable Goal: Continue the program to require environmental markings to be included in engineering designs for proposed storm drains on City-owned projects in Vincennes. Continue retrofitting existing storm drains with placards or stencils using City employees instead of volunteers.

Frequency: Annually

PE/PI – 14: Maintain current contact information of responsible party for meeting all permit requirements

Target Audience: The City of Vincennes Staff

Target Topics: MS4 Program

Measurable Goal: Review and update contact information of responsible party for PE/PI MCM. This information should be kept with NOI and other MS4 documentation. Through the agreement between Vincennes and Knox County Recycling and Solid Waste Management District (KCSWMD), the KCSMCD is responsible for providing the resources to meet this MCM (812-885-2520). However, on behalf of the City of Vincennes, Jake Personett is responsible for making sure this agreement is upheld (MS4 Coordinator, 812-316-0279).

Frequency: Annually

CHAPTER 4 - ILLICIT DISCHARGE DETECTION & ELIMINATION MCM

This chapter presents the Illicit Discharge Detection and Elimination Minimum Control Measure (MCM) section of the MS4 General Permit requirements for the City of Vincennes. Permit language outlining the requirements for this section of the MS4 permit are as follows:

GENERAL PERMIT COVERAGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

4.4 SWQMP, Illicit Discharge Detection and Elimination MCM

A MS4 operator must develop an Illicit Discharge Detection and Elimination (IDDE) program to detect, address, and eliminate illicit discharges into the MS4 conveyance system. The program does not need to address the categories of non-stormwater discharges or flows as identified in Section 1.2 unless IDEM or the MS4 operator identifies them as significant contributors of pollutants into the MS4 conveyance system. MS4 entities renewing permit coverage, must assess program requirements and goals from the previous permit, modify as necessary, and implement the requirements of this permit. A MS4 entity, at a minimum, must develop and implement a strategy to achieve the requirements within specific deadlines as outlined in the permit. The MS4 is required to develop or update and revise a plan to:

- (a) Develop or review and update an ordinance or other regulatory mechanism that prohibits illicit discharges into MS4 conveyances and establishes enforcement policy and procedures. MS4s renewing permit coverage must meet the requirement in Section 4.1 (i).
- (b) Develop or review and update an IDDE plan in the first year of permit coverage. The plan at a minimum must:
 - (1) Include standard operating procedures (SOP) to locate problem areas via dry weather screening or other methods, determine the source of the discharge, remove or otherwise correct illicit connections, and document the actions taken.
 - (2) Include a schedule to screen all stormwater outfalls that are owned and/or operated by the MS4 entity.
 - (3) Identify and map all active industrial facilities within the MS4 area that discharge into a MS4 conveyance. Identification must include the facility name, address, telephone number, and type of industrial activity.
 - (4) Participate and/or coordinate activities that are used to keep commonly dumped wastes out of the collection system, including, but not limited to household hazardous waste, motor oil, antifreeze, and pesticides.
 - (5) Include standard operating procedures (SOP) that provides investigators with guidance and forms to ensure that consistent investigations occur for every known illicit discharge. At a minimum, the SOP must include:
 - (A) A requirement to initiate an investigation to identify and locate the source of any continuous or intermittent unauthorized discharge within two (2) business days of being notified of the discharge.
 - (B) Inspection requirements in response to complaints and follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party to achieve and maintain compliance.
 - (C) A written response procedure for internal communication that identifies the procedures for responding to reports of illicit discharges.
 - (D) Methods or alternatives that will be used to eliminate illicit discharges.
 - (E) A clear and systematic procedure for conducting the investigation; including procedures that clearly defines what constitutes an illicit discharge and when a discharge is considered eliminated.

- (F) A prioritization system to investigate an illicit discharge, with the highest priority given to those suspected of being related to sanitary sewage contaminated run-off, and/or direct dumping of pollutants.
 - (G) Procedures to report the occurrence of any dry weather flows believed to be an immediate threat to human health or the environment to the local hazardous materials office or IDEM emergency spill line [(888) 233-7745 or (317) 233-7745].
 - (H) A tracking system, including documentation of the date(s) the illicit discharge was observed, the results of the investigation, follow-up to the investigation, and the date the investigation was closed.
- (6) Develop or review and update implementation of a program for public reporting of illicit discharges and spills in the first year of permit coverage. The MS4 entity must:
- (A) Identify a central contact point for complaints, illicit discharges, and spills. This contact information must be made available to appropriate MS4 staff and the public.
 - (B) Utilize a designated hotline, web page, and/or a twenty-four (24) hour emergency phone number with voicemail and/or email account, which is checked at least once each business day.
- (c) Complete and sign a certification form as a newly designated MS4. Submit the certification to IDEM once the ordinance and the IDDE plan have been developed or three hundred sixty-five (365) days from the date the initial NOI submittal was received by IDEM, whichever is earlier.
- (d) Map all stormwater outfalls and conveyance systems according to the following:
- (1) Newly designated MS4 entities must develop a plan to map outfalls in year one and demonstrate continual mapping progress that will result in 100 percent to be completed by the end of the fifth year of the permit.
 - (2) MS4 entities renewing permit coverage must review and update maps as new collection and discharge systems are added, as changes occur, or at least annually. The MS4 entity must modify existing maps to identify all receiving waters in the MS4.
- (e) Develop a stormwater system map as the requirements of item (d) above are achieved. The map must display the location of all outfalls and conveyances owned and/or operated by the MS4 entity, excluding privately owned or mutual drains, yard swales, curbs and gutters, and agricultural tiles and outfalls. The map must, at a minimum:
- (1) Identify each outfall with an alphanumeric identifier.
 - (2) Provide the longitude and latitude for each outfall in decimal degrees to 5 decimal place accuracy and a photograph of each discharge point.
 - (3) Identify all waters that receive discharges from MS4 outfalls and indicate if any of the receiving waters are on the current Indiana 303(d) list of impaired waterbodies or included in a U.S. EPA approved TMDL.
- (f) Develop or review and update a map that identifies high priority areas for administering the IDDE program based on land use, prior history, and frequency of discharges. The map must be completed within the first year of permit coverage.
- (g) Develop or review and update a training program for employees. The program must include:
- (1) Implementation no later than one hundred eighty (180) days after the initial IDDE certification has been submitted to IDEM for newly designated MS4s and 180 days following the submittal of an updated SWQMP for existing MS4s.
 - (2) Annual training for all employees, whose normal job responsibilities include investigation of an illicit discharge or illicit connection to the stormwater conveyance system.
 - (3) Documentation of all employee education and training activities, including staff names, title, and responsibility.

- (h) Conduct dry weather field screening to detect and eliminate illicit discharges for all mapped stormwater outfalls owned and/or operated by the MS4 entity in accordance with the following schedule.
 - (1) All MS4 entities must screen MS4 owned and/or operated outfalls and demonstrate continual screening that will result in 100 percent to be completed by the end of the fifth year of the permit.
 - (2) When the MS4 entity is made aware of non-stormwater discharges from MS4 owned/operated outfalls, the MS4 must continue screening of the discharge until that discharge is eliminated or is determined to be uncontaminated.
- (i) Review and assess the program annually and update as necessary.
- (j) Review, where applicable, the long-term control plan (LTCP) and the combined sewer operational plan (CSOOP) and make any language modifications to the SWQMP to ensure consistency between the two documents.
- (k) Report progress in an annual report (Section 8.0) that at a minimum includes:
 - (1) Status of measurable goals, program requirements, compliance schedules, and timetables for this MCM. If objectives are not being met for a specific program element, explain the implementation problems encountered, and changes made to resolve problems identified.
 - (2) IDDE program updates.
 - (3) A summary of any storm sewer system mapping changes to the stormwater outfall and conveyance maps.
 - (4) Number of new MS4 outfalls mapped.
 - (5) Number and location of dry weather outfalls screened for illicit discharges.
 - (6) Number and location of illicit discharges detected.
 - (7) Number and location of illicit discharges eliminated.
 - (8) Number of illicit discharges and/or spills reported to the MS4 entity.
 - (9) Number of enforcement actions taken by the MS4 entity.

4.1 INITIAL PROGRAM EVALUATION

The City of Vincennes has some existing activities that are relevant to stormwater quality and that the City desires to take credit for in its SWQMP. A summary of existing activities is presented below:

The City of Vincennes has completed GIS mapping of the existing utilities, storm sewers, outfalls, sanitary sewers, and water lines as well as associated structures (manholes, valves, hydrants, etc.). The City of Vincennes has completed GIS mapping on 100 percent of its conveyance system. As new construction projects take place in the City, new or revised storm sewers systems will be incorporated into the GIS system. The City of Vincennes has developed an Illicit Discharge Detection and Elimination (IDDE) plan to include field screening of outfalls during dry weather, tracking and tracing methods, and elimination procedures.

4.2 PROGRAM DESCRIPTION AND MEASUREABLE GOALS

Illicit discharges release polluted substances directly into the receiving streams or other portions of the storm sewer system. These highly concentrated pollutant emissions pose a threat to the water quality. An IDDE program works to detect and eliminate illicit discharges from the receiving waters.

A recycling program exists to promote pollution prevention in the City of Vincennes as well as a hazardous waste program. The City of Vincennes works closely with the KCSWMD for disposal and recycling. The City

hosts one Household Hazardous Waste (HHW) collection day throughout the year within City limits. Drop-off locations are also available at the KCSWMD every Thursday and by appointment. Citizen drop-off locations for automotive fluids are available at four retailers within Vincennes. Additionally, the KCSWMD holds numerous mercury thermometer and unused and expired medicines collection days each year.

According to the MS4 General Permit language, all active industrial facilities which discharge into an MS4 conveyance must be identified. A list of the companies located within the City of Vincennes, along with their address, telephone number, and permit number are located in the Water Quality Characterization Report (WQCR). This list was obtained IDEM's Industrial Permitted Dischargers as listed on the IDEM website. The list will be updated annually.

A comprehensive stormwater ordinance was adopted by the City of Vincennes in June 2006 that addresses the issue of illicit discharges within the City limits and contributing boundary areas. A copy of the ordinance and corresponding technical manual is available on the Vincennes Water Utilities website.

The following BMPs are proposed to address the City's goals, each identified with the prefix "ID" for Illicit Discharge:

ID – 1: Review and update, if necessary, Illicit Discharge Ordinance

Measurable Goal: Continue to enforce and publicize the stormwater ordinance addressing illicit discharges. Review and update the current ordinance to meet all permit requirements.
Frequency: Ongoing, Year 1 of permit term (updates)

ID – 2: Review and update, if necessary, IDDE plan to ensure that all permit requirements are met

Measurable Goal: Maintain an IDDE plan outlining the steps needed to detect and eliminate illicit discharges and illegal dumping into the City's regulated MS4 conveyances. The plan must address all items listed in Section 4.4(b) of the general permit including a Standard Operating Procedure (SOP) for tracking and addressing each illicit discharge detected.
Frequency: Ongoing, Year 1 of permit term (updates)

The City of Vincennes currently has an IDDE plan and has contracted with Burke Engineering to update it to reflect the General Permit

ID – 3: Promote Household Hazardous Waste disposal and Recycling

Measurable Goal: Continue the existing household hazardous waste and recycling programs in the City in coordination with KCSWMD. Promote and publicize the program, including the hazards associated with illicit discharges and improper disposal of waste. This effort will be completed through the Public Education, Outreach, Participation, and Involvement program and detailed in the IDDE Plan (ID-2). The outreach program will be targeted to public employees, businesses, and the general public.
Frequency: Ongoing

ID – 4: Maintain updated list of Industrial Dischargers

Measurable Goal: Maintain a database list and create a map of all active industrial facilities discharging within the MS4 as permitted through IDEM. The list must include facility name, permit number, and address.
Frequency: Ongoing, Year 1 of permit term (map and updates)

ID – 5: Review and update, if necessary, program for public reporting of illicit discharges and spills

Measurable Goal: Continue to manage the 24-hour Report-A-Polluter website/phone number for illicit discharges and spills and check all reports at least daily. List all incidents and enforcement actions taken in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

ID – 6: Maintain mapping system of stormwater outfalls and conveyance systems

Measurable Goal: Continue to update GIS mapping for Vincennes as new development occurs. Report on storm sewer mapping changes and any new mapped outfalls in the Annual Report.

Frequency: As changes occur or at least annually

Currently adding new outfalls in the Four Lakes area and redoing the outfalls located on Main Street.

ID – 7: Maintain a stormwater system map

Measurable Goal: Maintain a map of the City stormwater system map to ensure all permit requirements are met, including outfall identifiers, coordinate locations, photographs, and 303(d) listed receiving waters. Report on all mapping changes in the Annual Report.

Frequency: As changes occur or at least annually

ID – 8: Maintain a map of high priority areas

Measurable Goal: Develop a map of high priority areas for the IDDE program based on land use and history of discharges to help focus program efforts.

Frequency: Develop in Year 1, As changes occur or at least annually (updates)

The City of Vincennes has developed a layer on their GIS layer that shows the current high priority areas. This also allows the areas to be easily updated as the areas change.

ID – 9: Continue to conduct employee training

Measurable Goal: Implement employee training for all employees that conduct visual/non-visual illicit discharge detection within the City. Document training locations, topics, and attendees.

Frequency: Implement program within 180 days of submittal of updated SWQMP, then annual training

ID – 10: Continue to perform dry weather outfall screening

Measurable Goal: Conduct dry weather outfall screening in accordance with the City of Vincennes' IDDE Plan. Identify and eliminate contaminated dry weather discharges to the MS4. Report on number of screened outfalls as well as detected and eliminated illicit discharges in the Annual Report.

Frequency: All outfalls to be screen at least one (1) time during the five (5) year permit term.

ID – 11: Review LTCP and CSOOP as necessary to ensure consistency

Measurable Goal: Review as necessary the long-term control plan (LTCP) and the combined sewer operational plan (CSOOP) and update the program as necessary to ensure consistency between the two plan documents.

Frequency: Annually

ID – 12: Maintain IDDE Program and report program progress in the Annual Report

Measurable Goal: Review and update, if necessary, IDDE Program including measurable goals, compliance schedules, and timetables. Report on program progress in the Annual Report, specifically addressing items listed in Section 4.4(k) of the general permit.

Frequency: Annually

ID – 13: Maintain current contact information of responsible party for meeting all permit requirements

Measurable Goal: Review and update contact information of responsible party for the ID MCM. This information should be kept with NOI and other MS4 documentation. Contact person shall be Jake Personett, MS4 Coordinator, (812) 316-0279.

Frequency: Annually

CHAPTER 5 - CONSTRUCTION SITE STORMWATER RUN-OFF MCM

This chapter presents the Construction Site Stormwater Run-Off Minimum Control Measure (MCM) section of the MS4 General Permit requirements for the City of Vincennes. Permit language outlining the requirements for this section of the MS4 permit are as follows:

GENERAL PERMIT COVERAGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

4.5 SWQMP, Construction Site Stormwater Run-off MCM

A MS4 operator must develop and administer an erosion and sediment control program. The SWQMP must include a strategy to manage the program, monitor compliance, and, as necessary, enforce violations. MS4 entities renewing permit coverage, must assess program requirements and goals from the previous permit, modify as necessary, and implement the requirements of this permit. A MS4 entity, at a minimum must develop and implement a strategy to achieve the requirements within specific deadlines as outlined in this permit. The MS4 is required to:

- (a) Develop or update and revise the program to achieve the requirements of this MCM.
- (b) Develop or update and revise an ordinance or other regulatory mechanism. A MS4 renewing permit coverage must meet the requirement in Section 4.1(i). The ordinance or regulatory mechanism at a minimum must:
 - (1) Regulate projects with a land disturbance greater than or equal to one (1) acre, or disturbances of less than one (1) acre of land that are part of a larger common plan of development or sale when the larger common plan will ultimately disturb one (1) or more acres of land.
 - (2) Contain the requirements of the Construction Stormwater General Permit with the exception of state permitting process references and submittal deadlines for construction plans and permit applications.
 - (3) Establish a requirement that any project within the MS4 area that meets the applicability of the Construction Stormwater General Permit must submit a Notice of Intent (NOI) to obtain permit coverage from IDEM in addition to any procedural requirements for submittal to the MS4 entity or MS4 designated entity.
- (c) Establish permitting procedures, internal processes, and timetables for submittal and review of construction plans and applications. At a minimum, the MS4 entity must:
 - (1) Establish written procedures to review and determine compliance with the local ordinance or regulatory mechanism for construction plans submitted to the MS4 entity for privately owned (non-MS4) projects before construction activities commence.
 - (2) Utilize a form, checklist, or an alternative document based on the local ordinance and regulatory mechanism that at a minimum includes:
 - (A) A method to notify responsible individuals of the status of the plan.
 - (B) Identification of the MS4 or MS4(s) for which the plan review is being conducted, the individual that reviewed the plan including plan reviewer name, affiliation, address, telephone number, and email address.
- (d) Establish written procedures and internal processes to inspect construction sites to ensure that stormwater quality measures are properly installed and are maintained, to achieve the objectives of the ordinance or regulatory mechanism. At a minimum, the MS4 entity must:
 - (1) Utilize a form, checklist, or an alternative, which at a minimum meets the requirements of the MS4 ordinance to document inspections and a method to notify responsible individuals of compliance status.
 - (2) Identify priority sites for inspection based on the nature and extent of the construction activity, topography, threat to the degradation of water quality, characteristics of soils, complaints, and other factors as determined by MS4 priorities.

- (3) Inspect active construction sites. Project sites that are out of compliance must include follow-up inspections and/or action as identified in the MS4's policy and procedures to enforce the local ordinance. Project sites must be inspected based on the following minimum frequency.
 - (A) One hundred (100) percent of all new construction sites must be inspected at least once during the initial phase of construction that includes the installation of infrastructure (grading, roads, and utilities) followed by:
 - 1. One hundred (100) percent of all active construction sites with land-disturbing activities of five (5) acres or more and priority sites as identified by the MS4 must be inspected biannually.
 - 2. Fifty (50) percent of active construction sites with land-disturbing activities of less than five (5) acres, but at least one acre must be inspected annually.
 - (B) Investigate one hundred (100) percent of all complaints that are received and conduct follow-up inspections for sites that have violations of the local ordinance. Follow-up inspections are required until violations are resolved.
- (e) Establish written policy and procedures to enforce the local ordinance or regulatory mechanism including, but not limited to:
 - (1) Legal authority to enforce the ordinance.
 - (2) Procedural steps and actions that will be used to address violations, including compliance and escalating enforcement.
- (f) Develop and/or adopt written standards and specifications for the implementation of stormwater quality measures on construction sites.
- (g) Develop written standard operating procedures for receipt, resolution, and tracking of public inquiries, complaints, and other information submitted regarding local construction projects.
- (h) Complete and sign a certification form as a newly designated MS4. Submit the certification to IDEM once the ordinance or other regulatory mechanism and the program has been developed or three hundred sixty-five (365) days from the date the initial NOI submittal was received by IDEM, whichever is earlier. Prior to the development of the ordinance and submittal of the certification, construction plans must be submitted in accordance with the Construction Stormwater General Permit directly to IDEM or the SWCD when designated by IDEM.
- (i) Perform an evaluation and an assessment of the effectiveness of the program annually and update as necessary.
 - (1) Evaluate and assess the following:
 - (A) Regulatory mechanism(s) (i.e. ordinance).
 - (B) Plan review process, policy, and procedures.
 - (C) Site Inspection process, policy, and procedures.
 - (D) Standards and specification manual and/or guidance documents.
 - (E) Policy and procedures related to management and compliance of MS4 owned and/or operated projects.
 - (F) Coordination with other departments within the MS4.
 - (2) Develop and implement a plan and schedule to address program deficiencies, improvements, and modifications to the program.
- (j) Document annual training attended by MS4 staff and/or contractual staff that are specific to the responsibility (i.e. plan review, inspection, compliance, and enforcement) the individual performs for the MS4 entity. The documentation must at a minimum include:
 - (1) Responsibility of staff member.
 - (2) Dates and types of training attended.
 - (3) List professional certifications MS4 staff have obtained or maintain.

- (k) Comply with the requirements of the Construction Stormwater General Permit for projects that are owned and/or operated by the MS4 entity and in addition:
 - (1) Submit construction/stormwater pollution prevention plans to the SWCD or if directed to IDEM for review and a determination that the plan meets the minimum requirements of the Construction Stormwater General Permit.
 - (2) Comply with the provisions of the MS4 ordinance.
 - (3) Develop policy and procedures to ensure compliance with the Construction Stormwater General Permit that addresses coordination across departments within the MS4 entity's organizational structure. The policy and procedures at a minimum must include project self-monitoring.
- (l) Maintain an inventory of all construction site projects that are subject to the Construction Stormwater General Permit, the MS4 ordinance, and those that are owned and/or operated by the MS4 entity. The MS4 entity is required to:
 - (1) Track project information, including:
 - (A) Project name.
 - (B) Latitude and longitude of the project and where applicable the address.
 - (C) Receiving water(s).
 - (D) Project start date.
 - (E) Status of the project (i.e. active, terminated).
 - (F) An indication of compliance status, including enforcement actions undertaken (does not apply to projects owned and/or operated by the MS4 entity).
 - (2) Upon notification by IDEM, submit an inventory report:
 - (A) Within 48 hours of notification.
 - (B) On a regular schedule as designated by IDEM, but no more frequently than monthly.
- (m) Report progress in an annual report (Section 8.0) that at a minimum includes:
 - (1) Status of measurable goals, program requirements, compliance schedules, and timetables. If objectives are not being met for a specific program element, explain the implementation problems encountered, and changes made to resolve problems identified.
 - (2) The number of construction projects owned and/or operated by the MS4 entity that are active at the time of submittal.
 - (3) The number of construction sites obtaining a MS4 entity-issued stormwater run-off permit or authorization to discharge.
 - (4) The number of construction sites inspected.
 - (5) The number and type of enforcement actions taken.
 - (6) The number of public information requests and/or complaints received.

5.1 INITIAL PROGRAM EVALUATION

The City of Vincennes has some existing activities that are relevant to stormwater quality and that the City desires to take credit for in its SWQMP. A summary of existing activities is presented below:

The City of Vincennes has adopted a construction site stormwater ordinance as part of the comprehensive stormwater ordinance in June 2006. The ordinance includes erosion and sediment control measures, construction site and post-construction site runoff controls, plan review procedures, inspections, and

enforcement techniques. A copy of the ordinance and corresponding technical manual is available on the Vincennes Water Utility website. In July of 2008, the City of Vincennes assumed responsibility of all construction site plan reviews and site inspections from the Knox County Soil and Water Conservation District (KCSWCD) for all sites over 1 acre. For City-owned projects, the responsibility still lies with the KCSWCD for review and inspection.

5.2 PROGRAM DESCRIPTION AND MEASUREABLE GOALS

Construction sites, although temporary, have permanent effects on stormwater quality if managed incorrectly. Erosion and polluted runoff entering the system threaten water quality. The City of Vincennes has developed a comprehensive stormwater ordinance which includes both construction and post-construction techniques for sites that disturb one (1) or more acre of land. The program will be reviewed in this permit term for updates necessary to meet the minimum requirements of the new Construction Stormwater General Permit (CSGP), adopted December 18, 2021. A copy of the ordinance and corresponding technical manual is available on the Vincennes Water Utilities website.

To ensure that appropriate erosion control BMPs are implemented, Vincennes plans to adopt reference to the Model Stormwater Technical Standards Manual, created by Indiana Local Technical Assistance Program (LTAP)/ Purdue University in August 2021. Once adopted by the City of Vincennes, common control practices reference the Indiana Storm Water Quality Manual (ISWQM).

Since July of 2008, the City of Vincennes has taken the responsibility of all construction site inspections over 1 acre from the KCSWCD. Currently, the MS4 Coordinator performs visual inspections periodically and after rain events. Each owner is responsible for weekly self-inspections. Current details of the review process include utility coordination, surveying and easement requirements, reference data, design calculations, detention requirements, and erosion and sediment control programs. Site priority will be determined based on the type and extent of construction, the amount of disturbance, and the receiving water quality as allowable by law. Site inspections are conducted by the MS4 Coordinator. If a deficiency is noticed, either a citation is written, or the Contractor is notified of the problem and is required to fix it in a timely fashion. Additionally, weekly staff meetings are held between the Vincennes Water Utilities department managers. This meeting helps promote information sharing between the departments in the City of Vincennes. All departments within the City of Vincennes work collectively to transfer information regarding the daily workings of the City, including construction sites. In addition, the Vincennes Water Utilities has a good working relationship with the KCSWCD which increases knowledge regarding the MS4 through regular communication. Any public comments or complaints regarding construction site activity will be directed to the appropriate entity. Such complaints (and follow-up responses) are documented and filed per construction site.

The SWCD, in partnership with the City, will provide annual training for all staff, developers, engineers, and inspectors for construction site runoff control. An in-depth training regarding design considerations, site inspections, and plan reviews shall be given to all hands-on individuals such as engineers, contractors, developers, and inspectors. The City of Vincennes, in conjunction with the KCSWCD, hosts an annual training conference for Contractors in the area focusing on construction site stormwater runoff requirements as well as post-construction techniques. This partnership will help the City meet the requirements of the new permit.

The SWCD (or IDNR Division of Soil Conservation) will also provide plan review/approval and inspection for City-owned projects disturbing one or more acres.

The following BMPs are proposed to address the City's goals, each identified with the prefix "CS" for Construction Site:

CS – 1: Review and update, if necessary, Construction Site Ordinance

Measurable Goal: Continue to enforce the stormwater ordinance for sites over one (1) acre, including erosion and sediment control measures in accordance with the Construction Stormwater General Permit. Review and update the current ordinance to meet all permit requirements.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 2: Maintain written procedures (SOP) for construction site permitting

Measurable Goal: Maintain and update, if necessary, a program plan focused on permitting procedures related to submittal and review of construction plans and applications for all sites over one (1) acre. Submittal process will follow the written Standard Operating Procedures (SOPs) prior to commencement of construction. Continue to send City-owned projects over 1 acre to the KCSWCD for review. Report on the number of sites obtaining permit coverage in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 3: Maintain written procedures (SOP) for construction site inspections

Measurable Goal: Maintain and update, if necessary, a program plan for construction site inspection procedures for all sites over one (1) acre. Utilize standard forms, checklists, etc. as written in the Standard Operating Procedure (SOP). 100% of all construction sites must follow the inspection frequency requirements stated in Section 4.5(d)(3). Report on the number of sites inspected in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 4: Maintain written procedures (SOP) for construction site enforcement

Measurable Goal: Maintain and update, if necessary, a program plan for construction site enforcement procedures for all sites over one (1) acre. Plan must include legal authority and procedural steps for violations, as written in the Standard Operating Procedure (SOP). Report on the number and type of enforcement actions taken in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 5: Maintain standards and specifications for stormwater quality measures on construction sites

Measurable Goal: Review and update, if necessary, written standards and specifications to ensure all permit requirements are met. Continue to implement the LTAP Model Stormwater Technical Standards Manual, the Indiana Stormwater Quality Manual (ISWQM) and the EPA's Phase II Menu of BMPs to serve as the technical design standards for new BMPs in Vincennes.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 6: Maintain Standard Operating Procedure (SOP) for citizen reporting mechanism

Measurable Goal: Review and update, if necessary, written operating procedures for tracking and reacting to citizen reporting. Complaints will be handled through the Report-A-Polluter website/phone number and managed through the ID MCM. Report on the number of requests or complaints received in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 7: Assess effectiveness of program

Measurable Goal: Review and update, if necessary, the Construction Site Stormwater Run-off program to ensure its effectiveness and to ensure all permit requirements are met. Evaluation will

include review of regulatory, review process, policies for inspection, guidance documents, and coordination with other departments as well as a plan for implementation of changes.
Frequency: Annually

CS – 8: Continue to conduct employee training

Measurable Goal: Document employee training events in accordance with the permit requirements. Continue training for relevant staff regarding construction site topics specific to their responsibility. Continue to look for opportunities to conduct joint training with the KCSWCD for regional Contractors. Track names, responsibility, dates/type of training, and any certifications obtained by staff. Records will be kept by the MS4 Coordinator.

Frequency: Annually

CS – 9: Enforce Construction Stormwater General Permit requirements for City projects

Measurable Goal: Continue to uphold agreements with IDEM, IDNR, and coordinate with the KCSWCD for all City-owned projects in accordance with the Construction Stormwater General Permit as written in the Standard Operating Procedure (SOP). Include number of MS4 owned or operated sites in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

CS – 10: Maintain database inventory of construction projects within the MS4

Measurable Goal: Maintain an inventory of construction projects over one (1) acre within the MS4 including name, latitude/longitude, receiving waters, project start date, status, and any notes on compliance issues. Inventory must be accessible to IDEM within 48 hours of request.

Frequency: Ongoing

CS – 11: Maintain construction site program progress in the Annual Report

Measurable Goal: Review and update, if necessary, Construction Site Program including measurable goals, compliance schedules, and timetables. Report on program progress in the Annual Report, specifically addressing items listed in Section 4.5(m) of the general permit.

Frequency: Annually

CS – 12: Maintain current contact information of responsible party for meeting all permit requirements

Measurable Goal: Review and update contact information of responsible party for the CS MCM. This information should be kept with NOI and other MS4 documentation. Contact person shall be Jake Personett, MS4 Coordinator, (812) 316-0279.

Frequency: Annually

CHAPTER 6 - POST-CONSTRUCTION STORMWATER RUN-OFF MCM

This chapter presents the Post-Construction Stormwater Run-Off Minimum Control Measure (MCM) section of the MS4 General Permit requirements for the City of Vincennes. Permit language outlining the requirements for this section of the MS4 permit are as follows:

GENERAL PERMIT COVERAGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

4.6 SWQMP, Post-construction Stormwater Run-off MCM

A MS4 operator must develop and administer a comprehensive program to address discharges of post-construction stormwater run-off from new development and redevelopment. The program must include a strategy to manage the program, monitor compliance, and, as necessary, enforce violations of the local ordinance. MS4 entities renewing permit coverage, must assess program requirements and goals from the previous permit, modify as necessary, and implement the requirements of this permit. A MS4 entity, at a minimum, must develop and implement a strategy to achieve the requirements within specific deadlines as outlined in this permit. The MS4 is required to:

- (a) Develop or update and revise a program to achieve the requirements of this MCM.
- (b) Develop or update and revise an ordinance or other regulatory mechanism. A MS4 renewing permit coverage must meet the requirement in Section 4.1(i). The ordinance or regulatory mechanism must at a minimum, address post-construction stormwater run-off including, but not limited to:
 - (1) All new development and redevelopment with land-disturbing activities of 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 when the larger common plan will ultimately disturb one (1) or more acres of land.
 - (2) New retail gasoline outlets and new MS4-owned fueling areas or those that replace their existing tank systems, regardless of size are required to install appropriate measures to reduce lead, copper, zinc, and polyaromatic hydrocarbons in stormwater run-off.
- (c) Incorporate performance standards into an ordinance and/or other resource documents. The program, at a minimum, must
 - (1) Establish design criteria to reduce pollutants and manage stormwater quantity that at a minimum meets or exceeds the post-construction requirements as identified in the Construction Stormwater General Permit.
 - (2) Develop a list of stormwater management measures and standards that are appropriate for improving water quality. The measures may include structural, and non-structural practices, and low impact/green infrastructure principles.
 - (3) Post-construction stormwater management measures must be implemented to manage the discharge of stormwater run-off to address quality and quantity. Measures must be designed and engineered in accordance with the following standards and at a minimum:
 - (A) The run-off rate of stormwater run-off and/or volume from the project site must meet local requirements to address stormwater quantity as established by ordinance or other regulatory mechanism. The post-development run-off discharge from the project site must at a minimum not exceed the pre-development discharge based on the two-year, ten-year, and one-hundred year peak storm events.
 - (B) Run-off from the project site must be managed to minimize pollutants that are expected to be associated with the final land use. To achieve pollutant minimization goals, measures must be selected and meet the requirements as established by ordinance or other regulatory mechanism. The post-construction measures must at a minimum be selected based on correct sizing to address the Water Quality Volume (WQv) or water quality flow rate to comply with 327 IAC 2-1-6(a)(1)(A-D) and 327 IAC 2-1.5-8(a) and (b)(1)(A-D)).

- (C) Utilize one (1) or more post-construction measures working in tandem or series to treat stormwater run-off and increase the overall efficiency of individual and specialized measures.
- (D) In combination with proper post-construction measure selection, design and development strategies may be selected and incorporated into the plan to minimize the discharge of pollutants. These strategies may include, but are not limited to:
 - 1. Low Impact Development (LID) and green infrastructure.
 - 2. Infiltration measures, when selected must take into consideration the pollutants associated with run-off and the potential to contaminate ground water resources. When there is a potential for contamination, choose alternative measures or measures that pre-treat run-off to eliminate or reduce the pollutants of concern.
- (4) Register with U.S. EPA all MS4 owned and/or operated stormwater measures that are defined as a Class V injection well. When a MS4 requires the installation of a Class V injection well as a post-construction measure, the MS4 should direct the entity installing the measure to register the well. Refer to the U.S. EPA Underground Injection Well Program for the definitions and complete registration process.
- (5) Select and utilize any combination of practices or controls that promote volume reduction, infiltration, filtering, harvesting, evapotranspiration, vegetative practices or alternative treatment systems. The following standards are required and must be utilized in the decision-making process:
 - (A) Infiltration practices will not be allowed in wellhead protection areas as the primary water quality treatment measure, unless the measure is designed to treat the pollutant(s) of concern that originate in the drainage area of the measure.
 - (B) Discharges from new development and redevelopment sites will not be allowed directly into karst features without pre-treatment.
- (d) Develop and implement a written operational and maintenance plan or requirement for all stormwater structural measures that are owned and/or operated by the MS4 entity and those within private development to ensure the long-term operation and maintenance of the measures. The requirements must be enforceable and include one or more of the following:
 - (1) The owner/operator signed statement accepting responsibility for maintenance when the property is legally transferred to another party.
 - (2) Written conditions in a sales or lease agreement that require the recipient to assume responsibility for maintenance.
 - (3) Written conditions for residential properties operated by a homeowner's association or other entity.
 - (4) Any other legal agreement that assigns permanent responsibility for maintenance of structural stormwater management measures.
- (e) Administer an inspection program to ensure that all post-construction measures are maintained and operational for those owned and/or operated by the MS4 entity and as appropriate for those measures operated by private entities.
- (f) Develop written procedures and internal processes to inspect post-construction measures to ensure the measures are maintained and operational for those owned and/or operated by the MS4 entity and as appropriate for those measures required to be installed at the direction of the MS4 entity and operated by private entities. At a minimum, the MS4 entity must:
 - (1) Develop a form, checklist, or an alternative to document inspections and a method to notify responsible individuals of compliance.
 - (2) Inspect one hundred (100) percent of all post-construction measures owned and/or operated by the MS4 entity by the end of the permit cycle.
 - (3) Inspect post-construction measures that were implemented beginning at the time of adoption of the MS4 post-construction ordinance. All privately owned measures are to be inspected at a frequency to ensure that 100 percent of the measures are inspected within the five (5) year permit cycle or a MS4 may elect to cap the number of inspections at 250. Measures that are not inspected during the current permit cycle must be documented, prioritized, and inspected in the next permit cycle.

- (4) Inspect all measures for which complaints are received. Take corrective action or as necessary enforcement action for measures that are not functioning or where compliance issues have been identified.
- (g) Complete and sign a certification form as a newly designated MS4. Submit the certification once the ordinance or other regulatory mechanism and the program has been developed or five hundred forty-eight (548) days from the date the initial NOI submittal is received by IDEM or, whichever is earlier.
- (h) Review and assess the program annually and update as necessary.
 - (1) Evaluate and assess the following:
 - (A) Regulatory mechanism(s) (i.e. ordinance).
 - (B) Plan review process, policy, and procedures.
 - (C) Site Inspection process, policy, and procedures.
 - (D) Standards and specification manual and/or guidance documents.
 - (E) Policy and procedures related to management and compliance of MS4 owned and/or operated projects.
 - (F) Assess coordination with other MS4 departments.
 - (2) Develop and implement a plan and schedule to address program deficiencies, improvements, and modifications to the program.
- (i) Document annual training attended by MS4 staff and/or contractual staff that is specific to the responsibility (i.e. plan review, inspection, compliance, and enforcement) the individual performs for the MS4. The documentation must at a minimum include:
 - (1) Responsibility of staff member.
 - (2) Dates and types of training attended.
 - (3) List professional certifications MS4 staff have obtained or maintain.
- (j) Report progress in an annual report (Section 8.0) that at a minimum includes:
 - (1) Status of measurable goals, program requirements, compliance schedules, and timetables. If objectives are not being met for a specific program element, explain the implementation problems encountered, and changes made to resolve problems identified.
 - (2) Updates to the post-construction ordinance or regulatory mechanism.
 - (3) Number of sites requiring post-construction controls.
 - (4) Number, type, and location of structural measures installed.
 - (5) Number, type, and location of structural measures modified to function properly or improve water quality benefits.
 - (6) Number, type, and location of structural measures inspected to ensure each meets design requirements and/or are being maintained.

6.1 INITIAL PROGRAM EVALUATION

The City of Vincennes has some existing activities that are relevant to stormwater quality and that the City desires to take credit for in its SWQMP. A summary of existing activities is presented below:

The City of Vincennes has adopted a post-construction site stormwater ordinance as part of the comprehensive stormwater ordinance in June 2006. The ordinance includes post-construction site runoff controls, plan review procedures, inspections, and enforcement techniques. The City requires each owner to be responsible for long-term maintenance of post-construction measures but annual inspection is performed by the City staff.

6.2 PROGRAM DESCRIPTION AND MEASUREABLE GOALS

The City of Vincennes has adopted a policy that the control of stormwater runoff quality will be based on the management of Total Suspended Solids (TSS). This requirement is being adopted as the basis of the City of Vincennes's stormwater quality management program for all areas of the City. A minimum TSS removal rate of 80% is the performance standard for post construction structural BMPs. Any project that includes clearing, grading, excavation, and other land disturbing activities resulting in the disturbance of one (1) acre or more will be required to implement structural BMPs to control post construction runoff. Additionally, new gasoline outlets and refueling areas (or existing facilities that replace their tanks) must install appropriate practices to reduce lead, copper, zinc, and polyaromatic hydrocarbons in stormwater runoff.

TSS was selected as the performance standard for BMPs because many pollutants are highly associated with TSS. These pollutants include heavy metals, phosphorus, nitrogen, pesticides, trash and debris, and oxygen-demanding substances. Reducing TSS will improve water quality. High levels of TSS can cause streams to lose their ability to support diverse aquatic organisms. Suspended solids can also directly impact aquatic life by clogging fish gills, reducing growth rates and decreasing resistance to disease. Excessive sediment deposited in the stream bed can prevent egg and larvae development. Hence, controlling TSS on new development and re-development will have a positive impact on water quality.

The City of Vincennes has recently begun to explore the use of infiltration techniques through rain gardens, pervious pavement, and other green infrastructure techniques. These measures have been implemented by Vincennes University as well as residents and the local library. These measures help to capture TSS in stormwater runoff to improve water quality. Also, minimizing the use of storm sewers helps to mimic the hydrology of the natural conditions of the area by slowing down the travel time to the receiving streams and reducing the quantity of runoff. Vincennes will continue to incorporate these techniques as applicable.

To ensure that appropriate post-construction BMPs are implemented, Vincennes plans to adopt reference to the Model Stormwater Technical Standards Manual, created by Indiana Local Technical Assistance Program (LTAP)/ Purdue University in August 2021. Once adopted by the City of Vincennes, the Indiana Storm Water Quality Manual (ISWQM) and EPA's Stormwater Phase II Menu of BMPs will be utilized to provide the technical design standards for new BMPs.

The City of Vincennes has developed a comprehensive stormwater ordinance which includes both construction and post-construction techniques for sites that disturb one (1) or more acre of land. The program will meet the requirements of the new Construction Stormwater General Permit. Since July of 2008, the City of Vincennes has taken responsibility of all post-construction site inspections over 1 acre. Long term inspection (and O&M enforcement) of post-construction BMPs are performed by the City of Vincennes. Each owner is responsible for long-term maintenance of BMPs.

Runoff restrictions are also included in the post-construction requirements, primarily as reference in the Indiana Ground Water Quality Standards, located in 327 IAC 2-11. The City of Vincennes has included regulations to address the following:

- Disallow infiltration in wellhead protection areas
- Disallow discharges into sink holes without treatment meeting 327 IAC 2-11
- Require discharges from Class V injection to meet 327 IAC 2-11
- Use regulated flow rate practices for applicable sites to minimize outfall scour and streambank erosion
- Use vegetated filter strips at applicable sites with unvegetated swales or ditches

- Use installation of proper practices at all new and redeveloped refueling operations to reduce lead, copper, zinc, and polyaromatic hydrocarbons

Training will be provided related to the post-construction ordinance and BMP implementation. Plan review, inspection, and enforcement will be covered for all personnel associated with these topics including city employees and the development community. The City of Vincennes, in conjunction with the KCSWCD, hosts an annual training conference for Contractors in the area focusing on construction site stormwater runoff requirements as well as post-construction techniques. This partnership will help the City meet the requirements of the new permit.

An inspection process will be implemented for BMPs that are installed and maintained, in order to ensure that each technique meets the criteria set forth by the stormwater manual. A portion of this inspection process is the development of an implementation schedule and the record-keeping. All inspections and deficiencies located, along with any maintenance deficiencies by the Owner or required maintenance by the City shall be documented for enforcement. The City of Vincennes is currently in the process of developing formal inspection procedures. These changes will be implemented during this new permit term.

Since inspection and maintenance is required on all post-construction BMPs, it is imperative that the owners are notified of each BMP on their property and what maintenance is required. During this permit term, the City of Vincennes will develop operation and maintenance procedures which will be shared with BMP owners for any structural BMPs located on their property. A description of the BMP and frequency of proper maintenance will be included, along with required frequency of inspections.

The following BMPs are proposed to address the City's goals, each identified with the prefix "PC" for Post Construction:

PC – 1: Review and update, if necessary, Post-Construction Site Ordinance

Measurable Goal: Continue to enforce the post-construction stormwater ordinance for sites over one (1) acre and new retail gasoline outlets and fueling areas. The City will enforce post-construction runoff control requirements, provide public reference materials, and continue enforcement through plan reviews and inspections. Review and update the current ordinance to meet all permit requirements.

Frequency: Ongoing, Year 1 of permit term (updates)

PC – 2: Maintain written procedures (SOP) for post-construction site BMP measures

Measurable Goal: Maintain and update, if necessary, a program plan focused on measures related to submittal, review, and implementation of post-construction stormwater BMPs in accordance with the Construction Stormwater General Permit. The SOP will detail a list of measures and standards appropriate for water quality improvement (structural and non-structural practices), and low impact/green infrastructure in addition to runoff rates/volumes in accordance with Section 4.5(c)(3) of the permit. Continue to enforce the LTAP Model Stormwater Technical Standards Manual, the Indiana Stormwater Quality Manual (ISWQM) and the EPA's Phase II Menu of BMPs to provide the technical design standards for new BMPs in the City. Report number of sites requiring post-construction measures in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

PC – 3: Enforce long-term operation and maintenance for stormwater structural BMPs

Measurable Goal: Develop and implement a written plan for structure measures owned/operated by the MS4 and within private development. The plan must include signed maintenance responsibility agreements as indicated in the general permit. The plan must be enforceable by City staff. Report number, type and location of structural measures installed in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

PC – 4: Maintain a written plan for post-construction BMP inspections

Measurable Goal: Develop and implement a written inspection plan for all MS4 owned and operated structural BMPs in the City as well as privately owned BMPs (as appropriate). The program must inspect and ensure proper maintenance and operation of the structural BMPs. Checklists, forms, and/or documentation for notification should be utilized. 100% of MS4 owned/operated must be inspected in the permit cycle, and 100% of all privately owned BMPs since the adoption of the MS4 post-construction ordinance within the permit cycle, capped at 250. Report on all post-construction BMPs that are modified to increase water quality and those inspected for compliance with maintenance agreements in the Annual Report.

Frequency: Ongoing, Year 1 of permit term (updates)

PC – 5: Assess effectiveness of program

Measurable Goal: Review and update, if necessary, the Post-Construction Site Stormwater Run-off program to ensure its effectiveness and to ensure all permit requirements are met. Evaluation will include review of regulatory, review process, policies for inspection, guidance documents, and coordination with other departments as well as a plan for implementation of changes.

Frequency: Annually

PC – 6: Continue to conduct employee training

Measurable Goal: Document employee training events in accordance with the permit requirements. Continue training for relevant staff regarding post-construction site topics specific to their responsibility. Continue to look for opportunities to conduct joint training with the KCSWCD for regional Contractors. Track names, responsibility, dates/type of training, and any certifications obtained by staff. Records will be kept by the MS4 Coordinator.

Frequency: Annually

PC – 7: Maintain post-construction site program progress in the Annual Report

Measurable Goal: Review and update, if necessary, Post-Construction Site Program including measurable goals, compliance schedules, and timetables. Report on program progress in the Annual Report, specifically addressing items listed in Section 4.6(j) of the general permit.

Frequency: Annually

PC – 8: Maintain current contact information of responsible party for meeting all permit requirements

Measurable Goal: Review and update contact information of responsible party for the PC MCM. This information should be kept with NOI and other MS4 documentation. Contact person shall be Jake Personett, MS4 Coordinator, (812) 316-0279.

Frequency: Annually

6.3 STRUCUTRAL BMPs FOR NEW DEVELOPMENT AND REDEVELOPMENT

The City of Vincennes will allow for a variety of structural BMPs in new development and re-development areas to address post-construction runoff. The BMPs must, however, be capable of providing targeted pollutant

removal, which is removal of 80% of Total Suspended Solids or TSS. Post-construction BMPs will be provided in new development and re-development to treat stormwater after construction has been completed and the site has been stabilized.

The City of Vincennes will keep a preapproved BMP list on file and make available upon request. BMPs not previously approved by the City of Vincennes, must be certified by a professional engineer licensed in the State of Indiana and approved through the City of Vincennes. ASTM standard methods must be followed when verifying performance of new measures. New BMPs, individually or in combination, must meet the 80% TSS removal rate at 50 – 125 micron range (silt/fine sand) without entrainment and must have a low to medium maintenance requirement to be considered. Testing to establish the TSS removal rate must be conducted by an independent testing facility, not the BMP manufacturer.

The City of Vincennes has also begun using green infrastructure practices as the opportunity arises. Vincennes University has incorporated pervious pavement into some of their recent projects which help to remove pollutants from stormwater runoff and promote infiltration. The Vincennes Community Middle School is LEED certified and incorporated various green infrastructure techniques both inside the building and throughout the site. Additionally, in conjunction with the KCSWCD, the City of Vincennes has completed construction of a rain garden at the City Pool. The City will continue to be receptive to green infrastructure techniques with future development to reduce pollutants, sediment, and quantity of runoff entering adjacent receiving streams.

CHAPTER 7 - MUNICIPAL OPERATIONS POLLUTION PREVENTION & GOOD HOUSEKEEPING MCM

This chapter presents the Post-Construction Stormwater Run-Off Minimum Control Measure (MCM) section of the MS4 General Permit requirements for the City of Vincennes. Permit language outlining the requirements for this section of the MS4 permit are as follows:

GENERAL PERMIT COVERAGE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

4.7 SWQMP, Municipal Operations Pollution Prevention & Good Housekeeping MCM

A MS4 operator must develop and administer a comprehensive pollution prevention and good housekeeping program. The program must include a commitment to prevent or reduce pollutant run-off from MS4 owned and/or operated facilities. MS4 entities renewing permit coverage must assess program requirements and goals from the previous permit, modify as necessary, and implement the requirements of this permit. A MS4 entity, at a minimum, must develop and implement a strategy to achieve the requirements within specific deadlines as outlined in this permit. The MS4 is required to:

- (a) Develop or update and revise a program to achieve the requirements of this MCM.
- (b) Develop and/or maintain an inventory of MS4 owned and/or operated facilities. The inventory must, at a minimum include:
 - (1) A facility location map.
 - (2) The facility name or description of the facility and the street address or if an address is not available the latitude and longitude of each facility to a 5 decimal degree accuracy at the entrance to the facility.
 - (3) A list of stormwater and wastewater permits issued to the facility, including the permit number.
 - (4) Identification of facilities that have the greatest potential to generate stormwater pollution.
 - (5) The manager and an alternate contact person for each facility; including contact information.
- (c) Complete an annual assessment of all MS4 owned and/or operated facilities that use, store, or discharge pollutants that may degrade water quality. The assessment should be based on the pollutants that are associated with the facility. The assessment, at a minimum must:
 - (1) Identify the potential pollutants that are stored and used at each facility.
 - (2) Assess the existing operations at each facility. This must include, but is not limited to material storage, housekeeping practices, erosional features, vehicle washing, proximity of activities to drains and outfalls.
 - (3) Identify and map existing structural and non-structural stormwater management measures that have been implemented to address each type of pollutant and/or sources of pollutants.
- (d) Develop or update and revise a stormwater pollution prevention plan (SWPPP) for each MS4 owned and/or operated facility that use, store, or discharge pollutants that may degrade water quality. The SWPPP, may be combined by facility type. At a minimum the SWPPP must include:
 - (1) The most current facility inspection report.
 - (2) A map that locates all stormwater management measures, stormwater conveyance systems and outfalls, and the receiving waters to which each discharges. The map must be maintained and updated as conditions at the facility change.
 - (3) Procedures to review the SWPPP annually and update as needed.
 - (4) Procedures to take corrective action upon identification of an issue at the facility.
 - (5) Written documentation of maintenance activities performed, maintenance schedules, and long-term inspection procedures for all stormwater management measures implemented at the facility.

- (6) Operational procedures to achieve performance objectives for stormwater management including, but not limited to:
 - (A) Maintaining each facility, minimizing pollutant sources through eliminating exposure, administering good housekeeping procedures, and utilizing proper storage.
 - (B) Prohibiting the discharge of wash water associated with pavement, external building, and equipment or vehicle cleaning when the activity includes the use of soaps, solvents, or detergents.
 - (C) Properly disposing of animal waste from dog parks.
 - (D) Establishing designated snow disposal areas that have minimal potential for the discharge of run-off to receiving waters.
 - (E) Managing and storing salt and other de-icing materials to minimize the discharge of stormwater run-off from the facility by:
 - 1. Minimizing run-off and run-on.
 - 2. Utilizing and maintaining permanent structures and/or coverings, thereby reducing the discharge of polluted stormwater run-off.
 - 3. Managing operations to address tracking and spillage.
 - (F) Developing and implementing written spill prevention standard operating procedures (SOP). The SOP, at a minimum must include:
 - 1. Requirements for the location of spill kits that are easily accessible and properly sized in areas where spills are likely to occur.
 - 2. Spill prevention procedures and contact information in case of a spill, including the location the information will be displayed.
 - 3. Protocol and procedures to perform inspections of the facility.
 - 4. General maintenance procedures and disposal requirements at the facility.
 - 5. Compliance with Spill Prevention Control and Countermeasures (SPCC) planning as required by 40 CFR 112.
- (e) Maintain a copy of the SWPPP at each facility.
- (f) Perform facility inspections.
 - (1) Document quarterly inspections to ensure materials and equipment are clean and orderly and to minimize the potential for pollutant discharge for all facilities.
 - (2) Records must be kept with the SWPPP.
 - (3) The inspection report must, at a minimum, include any identified deficiencies and the corrective actions taken or planned to address the deficiencies.
 - (4) At least one of the quarterly inspections is to be completed by the MS4 Coordinator or a designated individual.
- (g) Develop a written operation and maintenance plan for MS4 owned and/or operated stormwater infrastructure. The plan, at a minimum must include:
 - (1) Procedures for the proper documented disposal of waste or materials removed from storm sewer systems and operational areas. All materials removed, including dredge spoil, accumulated sediments, floatables, and debris, must be reused, recycled, or disposed of in accordance with applicable solid waste and other applicable regulations.
 - (2) Written documentation of maintenance activities, maintenance schedules, and long-term inspection procedures for stormwater management measures to reduce floatables and other pollutants discharged from MS4 conveyance systems. Maintenance activities must include:
 - (A) Periodic litter pick up.
 - (B) Periodic structure cleaning.

- (C) Roadside shoulder and ditch stabilization.
 - (D) Planting and proper care of roadside vegetation.
 - (E) Remediation of outfall scouring conditions.
- (3) A surface visual inspection of all catch basins, outfalls, and conveyance systems. The inspection to assess the system:
- (A) Must be prioritized in year one and visual inspections for the entire system completed by the end of year five (5) with at least a minimum of 15 percent completed annually.
 - (B) Must be documented to include any issues that may contribute pollutants or may affect operation of the system or potential failure.
 - (C) Must follow the maintenance and corrective action outlined in (4) below.
- (4) A program to maintain MS4 conveyances and structures including, but not limited to, outfalls, open channels, ditches, and other drainage structures. The program, at a minimum must include:
- (A) Utilization of the inspection program identified in (3) above to assess maintenance requirements and an ongoing visual assessment of the conveyance systems for accumulated debris and stability. The MS4 entity will target problem areas by:
 - 1. Developing a corrective action plan, including a schedule to address erosion occurring in a conveyance or at an outfall.
 - 2. Increasing visual monitoring to at least three (3) times per year for those areas with reoccurring issues until such time that the problem is eliminated
 - (B) Procedures for the removal and disposal of trash and debris.
 - (C) Documentation that catch basin cleaning and maintenance has been completed.
 - (D) Procedures to ensure water extracted during catch basin cleaning does not reenter the MS4 storm system without pre-treatment.
 - (E) Documentation that the conveyance system maintenance has been completed.
- (5) Procedures to reduce the discharge of pollutants from MS4 owned and/or operated streets and parking lots. The procedures at a minimum must include:
- (A) Prioritization of streets, road segments, and parking lots that are to receive the highest priority for maintenance.
 - (B) A map of the streets, roads, and public parking lots.
 - (C) A schedule to implement street sweeping or other equivalent stormwater measures for streets, road segments, and public parking lots that are effective in addressing the discharge of pollutants.
 - (D) Identification of community special events (e.g. fireworks, parades) that generate trash and a schedule to perform cleanup for these events.
 - (E) Procedures to properly dispose of waste, including dewatering methods if applicable.
- (h) Complete and sign a certification form for a newly designated MS4. Submit the certification to IDEM once the program has been developed or three hundred sixty- five (365) days from the date the initial NOi submittal was received by IDEM, whichever is earlier.
- (i) Review and assess the good housekeeping program annually and update as necessary.
- (j) Establish procedures to ensure contractors or third-party entities hired by the MS4 entity to perform maintenance or other operational activities associated with the stormwater system are required to comply with stormwater good housekeeping practices and facility-specific stormwater management policies and procedures.
- (k) Provide written documentation that new flood control structures are assessed for their impacts on water quality and quantity during the planning and design phase
- (l) Evaluate existing flood control structures owned and/or operated by the MS4 with the purpose to modify the structure to improve water quality within the MS4.

- (m) Develop, document and implement an annual training program for employees directly involved in implementing good housekeeping for MS4 owned and/or operated infrastructure and facilities. The program, at a minimum must include:
- (1) Topics that are directly related to an employee's responsibilities and that covers new technology, operations, fueling spill prevention and clean-up, other responsibilities that arise during the year, site specific stormwater run-off issues, permit requirements that apply to the staff being trained, and review of the SWPPP.
 - (2) Training must be provided to:
 - (A) New full-time and part time hires within the first two (2) months of their hire date.
 - (B) Seasonal employees within the first 30 days.
 - (3) Documentation that employees have been properly trained on issues directly related to their responsibilities. The documentation, at a minimum must include:
 - (A) Employee name and position.
 - (B) Date of the training
 - (C) Description of the training provided.
- (n) Report progress in an annual report (Section 8.0) that, at a minimum, includes:
- (1) Status of measurable goals, program requirements, compliance schedules, and timetables. If objectives are not being met for a specific element, explain the implementation problems encountered, and changes made to resolve problems identified.
 - (2) Number and location of stormwater outfalls and conveyance systems that have been repaired.
 - (3) Estimated amount of material collected from stormwater drainage system cleaning including the disposal methods utilized.
 - (4) Estimated amount of material collected from street sweeping, if applicable, including the disposal methods utilized.
 - (5) Number and location of de-icing salt and sand storage areas and methods used to minimize stormwater exposure.

7.1 INITIAL PROGRAM EVALUATION

The City of Vincennes has some existing activities that are relevant to stormwater quality and that the City desires to take credit for in its SWQMP. A summary of existing activities is presented below:

The City of Vincennes municipal operations provides some pollution prevention and good housekeeping practices. The City has an annual HHW collection day, several automotive fluid drop-off locations, and HHW drop-off every Tuesday and Thursday at the KCSWMD or by appointment.

The City has one street sweeper that performs periodic sweeping of major thoroughfares. Vincennes is responsible for salting and sanding streets following significant snowfalls and has covered its salt and sand storage areas. The City also performs periodic cleaning of its storm drain inlets and removal of trash and debris from area ditches and receiving streams.

7.2 PROGRAM DESCRIPTION AND MEASUREABLE GOALS

Various activities performed in the MS4 area contribute to stormwater pollution. Proper maintenance of the City's MS4 is needed to reduce the potential for pollutants to be exposed to stormwater runoff. These

programs are often called source controls, as they capture potential pollutants at their source before they enter area receiving streams. Enhanced good housekeeping practices will need to address, as appropriate:

- Periodic litter pickup
- Periodic BMP structure cleaning
- Periodic pavement sweeping
- Roadside shoulder and ditch stabilization
- Planting and proper care of roadside vegetation
- Remediation of locations where outfall scour has occurred

Operational areas maintained by the City will also be investigated and improved over the term of the permit to reduce the discharge of pollutants from roads, parking lots, maintenance and storage yards, and waste transfer stations. Controls must include:

- Covering deicing salt or sand storage piles
- Providing facilities for containment of accidental losses of concentrations solutions (acids, alkalies, salts, oils, or other polluting materials)
- Standard operating procedures (SOPs) for spill prevention and clean up during fueling operations
- BMPs for vehicle maintenance areas
- Prohibiting the release of equipment or vehicle wash waters and concrete or asphalt hydrodemolition waste waters into the MS4
- Minimizing the use of pesticides and fertilizers (in compliance with Indiana state chemist's guidance requirements)
- Properly disposing of animal waste (if applicable)

The City of Vincennes' Pollution Prevention and Good Housekeeping program will also require that all wastes collected from the MS4 be properly disposed, through recycling or disposal in accordance with applicable solid waste disposal regulations.

Lastly any flood control projects initiated by the City will be evaluated to determine their effects on water quality and examined to determine if additional water quality protection devices or practices can be incorporated.

The mentioned plans will require proper training of all involved persons with the above programs.

The following BMPs are proposed to address the City's goals, each identified with the prefix "GH" for Good Housekeeping:

GH – 1: Maintain Municipal Operations Pollution Prevention & Good Housekeeping Program

Measurable Goal: Review and update, if necessary, program to ensure all permit requirements are met.
Frequency:

GH – 2: Maintain inventory of MS4 owned and/or operated facilities

Measurable Goal: Review and update, if necessary, facility inventory with location map, address, latitude/longitude, stormwater/wastewater permits (and permit number), potential pollutants, and responsible person (and alternate) with contact information.

Frequency: Annually

GH – 3: Complete assessment of facilities identified in GH-2

Measurable Goal: Review and update, if necessary, assessment of facilities identified in GH-2 according to permit requirements. Map all structural and non-structural BMPs and their corresponding pollutants.
Frequency: Annually

GH – 4: Maintain stormwater pollution prevention plan (SWPPP) for each MS4 owned and/or operated facility

Measurable Goal: Review and update, if necessary, facility SWPPP according to permit requirements. Maintain a copy of the SWPPP at each facility, including the most current inspection report, a map, corrective action procedures, and operations and maintenance documentation for stormwater management at the site in accordance with Section 4.7(d)(6).
Frequency: As changes occur, Annually (minimum)

GH – 5: Continue to inspect MS4 facilities

Measurable Goal: Inspect MS4 facility stormwater BMPs identified in the SWPPP quarterly to minimize pollutant discharge potential. Keep records in the SWPPP and identify any deficiencies and corrective actions. At least one (1) of the quarterly inspections must be completed by the MS4 Coordinator.
Frequency: Quarterly

GH – 6: Maintain written standard operating procedures (SOP) for stormwater infrastructure

Measurable Goal: Review and update, if necessary, stormwater infrastructure SOPs according to permit requirements. SOPs include but are not limited to storm sewer cleaning, periodic litter pick up, structure cleaning, roadside ditch/shoulder stabilization, roadside vegetation, outfall scouring remediation, street sweeping. SOPs must meet inspection requirements set forth in Section 4.7(g).
Frequency: As changes occur, Annually (minimum)

GH – 7: Visually inspect storm sewer system screening

Measurable Goal: Conduct visual inspection of all catch basins, outfall, and conveyance systems. Priority must be given in Year 1 of the permit, with the entire system completed in permit cycle (at least 15% completely annually). Documentation of issues or failures and a corrective action plan is required.
Frequency: 100% in each permit cycle (15% annually)

GH – 8: Develop ongoing visual inspection/maintenance plan for storm sewer system

Measurable Goal: Develop and review a written maintenance plan for outfalls, open channels, ditches and other drainage structures. The program must identify and target areas with maintenance concerns or accumulated debris (identified in GH-7). These areas must have a corrective action plan, including ways to address erosion and increased visual monitoring to three (3) times per year until the problem is eliminated. The written plan will be described in the SOP and include trash/debris removal procedures, documentation of all maintenance activities and disposal techniques.
Frequency: Annually (as identified)

GH – 9: Continue Street Sweeping

Measurable Goal: Continue the program for street sweeping on major corridors in the City as described in the SOP.
Frequency: Ongoing, Annually (updates)

GH – 10: Continue Catch Basin Cleaning

Measurable Goal: Continue the program for catch basin cleaning as described in the SOP. Report compliance schedules in Annual Report.

Frequency: Ongoing

GH – 11: Continue Storm Sewer Cleaning

Measurable Goal: Continue the program for storm sewer cleaning as described in the SOP. Report compliance schedules in Annual Report.

Frequency: Ongoing

GH – 12: Minimize Pesticide and Herbicide Application

Measurable Goal: Continue to inform and enforce the minimization of pesticide and herbicide application to departments with uses in the City. The City currently minimizes applications and all applicators are certified through an acceptable entity to ensure that treatment is performed in a way as to minimize pollution.

Frequency: Ongoing

GH – 13: Assess effectiveness of Municipal Operations Pollution Prevention & Good Housekeeping Program

Measurable Goal: Review and update, if necessary, the Municipal Operations/Good Housekeeping program to ensure its effectiveness and to ensure all permit requirements are met. Evaluation will include review of regulatory, review process, policies for inspection, guidance documents, and coordination with other departments as well as a plan for implementation of changes.

Frequency: Annually

GH – 14: Maintain procedures to ensure MS4 contractors abide by program requirements

Measurable Goal: Establish procedures for pre-qualification of any MS4 hired contractors which perform maintenance or other operations activities to read the SOP and agree to comply with the Good Housekeeping policies and procedures for each MS4 owned facility.

Frequency: Ongoing, Year 1 of Permit Term (updates)

GH – 15: Evaluate flood control projects for opportunities to address water quality

Measurable Goal: For new flood control projects, evaluate the potential to address water quality issues. Track the number of projects evaluated and the results of the evaluation (whether water quality could be addressed and how).

Frequency: Ongoing, Year 1 of Permit Term (updates)

GH – 16: Continue to conduct employee training

Measurable Goal: Document employee training events in accordance with the permit requirements. Continue training for relevant staff regarding pollution prevention and good housekeeping specific to their responsibility. Training must be provided for all new full-time and part-time hires within two (2) months of their hire date and seasonal employees within the first 30 days. Track names, position, dates/type of training.

Frequency: Annually

GH – 17: Report Pollution Prevention and Good Housekeeping program progress in the Annual Report

Measurable Goal: Review and update, if necessary, Pollution Prevention and Good Housekeeping Program including measurable goals, compliance schedules, and timetables, Report on program progress in the Annual Report, specifically addressing items listed in Section 4.7(n) of the general permit.

Frequency: Annually

GH - 18: Maintain current contact information of responsible party for meeting all permit requirements

Measurable Goal: Review and update contact information of responsible party for the GH MCM. This information should be kept with NOI and other MS4 documentation. Contact person shall be Jake Personett, MS4 Coordinator, (812) 316-0279.

Frequency: Annually

CHAPTER 8 - PROGRAMMATIC INDICATORS

Programmatic indicators refer to any data collected by an MS4 entity that is used to indicate implementation of one (1) or more MCM. These indicators will be used during the term of the permit to track the collection of data that will be submitted with annual reports to IDEM. These indicators may be adjusted during the term of the permit to be more reflective of local conditions and practices. Table 9-1 provides a listing of the programmatic indicators required by the MS4 General Permit. The corresponding applicability to each MCM is also provided in the table.

Table 9-1. Programmatic Indicators and Corresponding MCMs

Programmatic Indicator	Public Education, Outreach, Participation and Involvement	Illicit Discharge Detection & Elimination	Construction Site Stormwater Run-off	Post Construction Stormwater Run-off	Pollution Prevention & Good Housekeeping
1. Status of measurable goals, program requirements, compliance schedules, and timetables for this MCM. If objectives are not being met for a specific program element, explain the implementation problems encountered, and changes made to resolve problems identified.	✓	✓	✓	✓	✓
2. A list of each public participation and outreach events and activities conducted, a description of the activity, an estimate of the number of attendees, and an assessment if the goals and objectives were met.	✓				
3. The number and types of construction and/or post-construction stormwater training opportunities that were provided to contractors, developers and builders, property owners (commercial, industrial, residential, homeowner associations, and other targeted entities during the reporting period.	✓				
4. Documentation that presentations were made to elected officials or boards.	✓				
5. Describe each targeted audience selected and how they were reached during the reporting period and describe behavioral changes observed.	✓				
6. A list of all public education materials used during the reporting period.	✓				
7. IDDE program updates.		✓			
8. A summary of any storm sewer system mapping changes to the stormwater outfall and conveyance maps.		✓			
9. Number of new MS4 outfalls mapped.		✓			
10. Number and location of dry weather outfalls screened for illicit discharges.		✓			
11. Number and location of illicit discharges detected.		✓			
12. Number and location of illicit discharges eliminated.		✓			

Programmatic Indicator	Public Education, Outreach, Participation and Involvement	Illicit Discharge Detection & Elimination	Construction Site Stormwater Run-off	Post Construction Stormwater Run-off	Pollution Prevention & Good Housekeeping
13. Number of illicit discharges and/or spills reported to the MS4 entity.		✓			
14. Number of enforcement actions taken by the MS4 entity.		✓			
15. The number of construction projects owned and/or operated by the MS4 entity that are active at the time of submittal.			✓		
16. The number of construction sites obtaining a MS4 entity-issued stormwater run-off permit or authorization to discharge.			✓		
17. The number of construction sites inspected.			✓		
18. The number and type of enforcement actions taken.			✓		
19. The number of public information requests and/or complaints received.			✓		
20. Updates to the post-construction ordinance or regulatory mechanism.				✓	
21. Number of sites requiring post-construction controls.				✓	
22. Number, type, and location of structural measures installed.				✓	
23. Number, type, and location of structural measures modified to function properly or improve water quality benefits.				✓	
24. Number, type, and location of structural measures inspected to ensure each meets design requirements and/or are being maintained.				✓	
25. Number and location of stormwater outfalls and conveyance systems that have been repaired.					✓
26. Estimated amount of material collected from stormwater drainage system cleaning including the disposal methods utilized.					✓
27. Estimated amount of material collected from street sweeping, if applicable, including the disposal methods utilized.					✓
28. Number and location of de-icing salt and sand storage areas and methods used to minimize stormwater exposure.					✓

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