



2022 Annual Report

**Municipal Separate Storm Sewer System
(MS4) Permit #MOR04C075**

Reporting Period: January 1 to December 31, 2022

Submitted February 28, 2023

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Note: Public comments regarding the City's Stormwater Management Program, five year plan or this report can be submitted online at www.wentzvillemo.gov/stormwater.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL
STORMWATER MANAGEMENT PROGRAM REPORT FOR
COMPREHENSIVE PERMIT (MOR04C)**

FOR OFFICE USE ONLY

PROJECT ID NUMBER

DATE RECEIVED

Part A – MS4 PERMIT HOLDER INFORMATION

1. MS4 NAME City of Wentzville	2. NPDES PERMIT NUMBER MOR04C075	3. MS4 UNIQUE ID NO. (If applicable – co-permittees only) N/A	
4. ADDRESS 1001 Schroeder Creek Blvd.	5. CITY Wentzville	6. STATE MO	7. ZIP CODE 63385
8. TELEPHONE NUMBER WITH AREA CODE (636) 327-5102	9. NAME OF MS4 CONTACT PERSON Jamie.Paige@wentzvillemo.gov		
10. EMAIL OF MS4 CONTACT PERSON Jamie Paige			
11. Is the MS4 contact person listed above different from the most recent MS4 stormwater management program annual report? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
12. Have any areas of the MS4 been added or removed from the MS4 jurisdiction due to annexation or other legal means since the most recent permit application (renewal, new, modification), or most recent MS4 stormwater management program annual report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes , please provide a map along with a brief description as an attachment.			

Part B – REPORTING REQUIREMENTS

1. Is your MS4 subject to a TMDL? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes , you are required to submit the MS4 ARAP report annually. Reports are due Feb. 28 each year. See Part F of this form.
2. Is your MS4 newly permitted (i.e., is this your first MS4 permit)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. If you are part of a co-permitted MS4 permit, will each co-permitted MS4 submit an individual stormwater management program report, or a combined MS4 stormwater management program report? <input type="checkbox"/> Individual <input type="checkbox"/> Combined N/A
4. Reporting period year (i.e., the previous year from January 1 st to December 31 st) BEGINNING: January 1, 2022 ENDING: December 31, 2022

Part C – STORMWATER MANAGEMENT PROGRAM PARTNERS

1. If another governmental entity implements any BMPs or MCMs for your stormwater program, please provide the following: a. Name of the government entity; b. Name of the primary contact for the government entity; c. Contact information (i.e., address, city, ZIP code, state, and phone number); and d. Specific best management practices or minimum control measures being implemented by the government entity. It is the responsibility of the permittee to provide all information under this report regardless if programmatic BMPs or MCMs are being implemented by another governmental entity. If an entire MCM is being implemented by an alternative governmental entity, please indicated that under the appropriate MCM below.
2. Does the permittee currently utilize, or is working towards develop of an Integrated Plan? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes , please provide a summary of the status of the Integrated Plan.

PART D – MINIMUM CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND MEASURABLE GOALS EVALUATION

An attachment is necessary for many items under the MCMs below to provide information regarding the progress toward achieving the statutory goal of reducing the discharge of pollutants to the MS4 to the maximum extent practicable to the MS4. Provide additional informative data, success stories, and experiences that support the successful implementation of your stormwater management plan (SWMP).

MCM 1. Public Education and Outreach

1. (4.1.A) Who are the target audiences? Residents, developers or construction site operators and local government employees Were any changes made to target audiences during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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2. (4.1.B) What are the target pollutants? <u>Littering/dumping, sediment, household/yard waste, oil and other vehicle fluids</u> Were any changes made to target pollutants during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. (4.1.C) Were any changes made to educational resources to be used as BMPs (materials, postings, etc.) in conjunction with the selected pollutants for the selected target audiences during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes.
4. (4.1.D, 4.1.E) Were any changes made to involvement activities, or support to be used as BMPs (events, activities, etc.) in conjunction with the selected pollutants for the selected target audiences during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes
5. (4.1.F) Were all BMPs for MCM 1 evaluated during reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing what BMPs were not evaluated and why.
6. Were the measurable goals for all BMPs for MCM 1 successfully reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals or BMPs evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No
For each of the BMPs under this MCM, please provide a brief summary of how the measurable goals were achieved and documented. For any BMPs where the measurable goals were not achieved, provide a brief summary of how the BMP evaluated/modified in an effort for success in the coming reporting year.
7. Were the BMPs for MCM 1 determined effective/successful for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the BMPs determined to be ineffective/unsuccessful evaluated for modification or replacement? <input type="checkbox"/> Yes <input type="checkbox"/> No
8. Were any changes made to MCM 1 during the reporting period that were not covered above, including the addition of programmatic BMPs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please include an attachment describing changes.
MCM 2. Public Involvement and Participation
1. (4.2.A, 4.2.B, 4.2.C) Completing 4.2.A-4.2.C in this form is only applicable during permit renewal OR as a result of major modification to the SWMP. If neither of these apply during this reporting period, please check N/A here and skip to 3 below. <input checked="" type="checkbox"/> N/A
2. Was a public notice period held during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Was the public notice posted on the MS4 website? <input type="checkbox"/> Yes <input type="checkbox"/> No Was a public information meeting held for the public notice during this reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, what was the attendance for the meeting? _____ Were any comments received? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, how many? _____
3. (4.2.D) Were any changes to publicly available method to accept public inquiries, or concerns, and to take information provided by the public about stormwater and stormwater related topics made during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes.
4. Were all BMPs and tracking methods for 4.2.D evaluated during reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing what BMPs were not evaluated and why.
5. (4.2.E) Does the permittee utilize a stormwater management panel or committee during the reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, was the panel or committee determined to be effective/successful for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If the permittee does not currently utilize a stormwater management panel or committee, did the permittee evaluate the potential benefits of utilizing a stormwater management panel or committee? <input type="checkbox"/> Yes <input type="checkbox"/> No
6. Were any changes to 4.2.E made during reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes.
7. (4.2.F) On what date did the permittee provide an update to the governing board on the status of, or updates on, the Stormwater Management Program, including compliance with the program for this reporting period? <u>4/28/2022</u>
8. (4.2.I) Were all tracking mechanisms and databases for MCM 2 evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the mechanisms were not evaluated.
9. Were the measurable goals for all BMPs for MCM 2 successfully reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals or BMPs evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No
For each of the BMPs under this MCM, please provide a brief summary of how the measurable goals were achieved and documented. For any BMPs where the measurable goals were not achieved, provide a brief summary of how the BMP evaluated/modified in an effort for success in the coming reporting year.
10. Were the programmatic BMPs for MCM 2 determined effective/successful for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the BMPs determined to be ineffective/unsuccessful evaluated for modification or replacement? <input type="checkbox"/> Yes <input type="checkbox"/> No
11. Were any changes made to MCM 2 during the reporting period that were not covered above, including the addition of programmatic BMPs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please include an attachment describing changes.
12. (4.3.A) Were any changes to the storm sewer system map made during reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
13. (4.3.C) Were any changes made to the ordinance for prohibition of non-stormwater into the storm sewer system during this reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
14. (4.3.D) Was the measurable goal for dry weather field screening met? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No

<p>15. (4.3.H) Were the priority areas evaluated for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, were the priority areas determined to be appropriate for the next reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Will additional or new priority areas be identified for the next reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>16. (4.3.J) Were any illicit discharge investigations conducted during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, were the investigation procedures, response times, and tracking mechanisms determined to be appropriate for the next reporting? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the BMPs determined to be ineffective/unsuccessful evaluated for modification or replacement? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>17. (4.3.K) Were MCM 3 enforcement procedures evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>18. (4.3.L) Were all tracking mechanisms and databases for MCM 3 evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the mechanisms were not evaluated.</p>
<p>19. (4.3.M, 4.3.Q) Were all outreach and internal training procedures for MCM 3 evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>20. Were the measurable goals for all BMPs for MCM 3 successfully reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals or BMPs evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>For each of the BMPs under this MCM, please provide a brief summary of how the measurable goals were achieved and documented. For any BMPs where the measurable goals were not achieved, provide a brief summary of how the BMP evaluated/modified in an effort for success in the coming reporting year.</p>
<p>21. (4.3.N - 4.3.R) Were the programmatic BMPs for MCM 3 determined effective/successful for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the BMPs determined to be ineffective/unsuccessful evaluated for modification or replacement? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>22. Were any changes made to MCM 3 during this reporting period that were not covered above, including the addition of programmatic BMPs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please include an attachment describing changes.</p>
<p>MCM 4. Construction Site Stormwater Runoff Control</p>
<p>1. (4.4.A) Were any changes to the ordinance for construction site stormwater made during this reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes.</p>
<p>2. (4.4.B) Were the pre-construction plan review procedures evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the review procedures were not evaluated.</p>
<p>3. (4.4.C) Were the procedures for construction site inspections, evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>4. (4.4.D) Were construction site enforcement procedures evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>5. (4.4.E) Were the procedures for requiring construction site operators to conduct site inspections evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>6. (4.4.F, 4.4.G) Were all tracking mechanisms and databases for MCM 4 evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the mechanisms and/or databases were not evaluated.</p>
<p>7. (4.4.J) Were all procedures for public submittal of concerns or information related to construction sites evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>8. (4.4.K) Were all internal training procedures for MCM 4 evaluated for effectiveness during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the procedures were not evaluated.</p>
<p>9. (4.4.L) Were all procedures outlining the local inspection and enforcement for MCM 4 evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why the document(s) were not evaluated.</p>
<p>10. Were the measurable goals for all programmatic BMPs for MCM 4 successfully reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals or programmatic BMPs evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>For each of the programmatic BMPs under this MCM, please provide a brief summary of how the measurable goals were achieved and documented. For any BMPs where the measurable goals were not achieved, provide a brief summary of how the BMP evaluated/modified in an effort for success in the coming reporting year.</p>
<p>11. (4.4.H, 4.4.I, 4.4.M) Were the programmatic BMPs and procedures for MCM 4 determined effective/successful for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>12. Were any changes made to MCM 4 during the reporting period that were not covered above, including the addition of programmatic BMPs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please include an attachment describing changes.</p>
<p>MCM 5. Post-Construction Stormwater Management in New Development and Redevelopment</p>

<p>1. (4.5.A) Were any changes to the ordinance for post-construction runoff site stormwater made during this reporting period? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes.</p>
<p>2. (4.5.B) Were any changes to the permittee's strategy to minimize water quality impact made during this reporting period? This includes any policy or ordinance changes to either structural or non-structural controls. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please include an attachment describing changes.</p>
<p>3. Were all strategies (programmatic BMPs) for 4.5.B evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing what BMPs were not evaluated and why.</p>
<p>4. (4.5.C) Were the pre-construction plan review procedures evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why these procedures were not evaluated.</p>
<p>5. (4.5.D) Were procedures for long-term operation and maintenance of the post-development BMPs evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why these procedures were not evaluated.</p>
<p>6. (4.5.E) Were the procedures for inspections or requiring inspections, evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why these procedures were not evaluated.</p>
<p>7. Were the measurable goals for all BMPs for 4.5.E successfully reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>8. (4.5.F, 4.5.G) Were compliance and enforcement procedures evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing what BMPs were not evaluated and why.</p>
<p>9. (4.5.H) Was the inventory of all post-construction BMPs, including the tracking mechanism, evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why these procedures were not evaluated.</p>
<p>10. (4.5.I) Were all tracking mechanisms for post-construction BMP inspections, including the tracking mechanism, evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing why these procedures were not evaluated.</p>
<p>11. (4.5.L) Were all training procedures for inspections evaluated for effectiveness during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No No, please include an attachment describing why these procedures were not evaluated</p>
<p>12. Were the measurable goals for all programmatic BMPs for MCM 5 successfully reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the measurable goals or programmatic BMPs evaluated/modified in an effort for success in the next reporting period? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>For each of the BMPs under this MCM, please provide a brief summary of how the measurable goals were achieved and documented. For any BMPs where the measurable goals were not achieved, provide a brief summary of how the BMP evaluated/modified in an effort for success in the coming reporting year.</p>
<p>13. (4.5.J, 4.5.K, 4.5.M) Were programmatic BMPs and procedures for MCM 5 determined effective/successful for this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, were the programmatic BMPs determined to be ineffective/unsuccessful evaluated for modification or replacement? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>14. Were any changes made to MCM 5 during the reporting period that were not covered above, including the addition of programmatic BMPs? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please include an attachment describing changes.</p>
<p>MCM 6. Pollution Prevention/Good Housekeeping for Municipal Operations</p>
<p>1. (4.6.A) Did the permittee maintain and utilize an employee training program for MS4 municipal operations staff? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No What date or dates was the training held during this reporting period? <u>12/15/22, 4/26/22, 6/3/22, 11/9/22, 12/5/22, 12/7/22</u></p>
<p>2. Were any changes to the training program made during reporting this period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please include an attachment describing changes. See attached MS4 Report Implementation Matrix MCM 6 #5</p>
<p>3. (4.6.B) Were the following topics covered during training for this reporting period?</p> <ul style="list-style-type: none"> • Vehicle and equipment washing; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Fluid disposal and spills; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Fleet, equipment, and building maintenance; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Park, open space maintenance procedures (including fertilizer, herbicide, pesticide application); <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • New construction, road maintenance, and land disturbances; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Stormwater system maintenance; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • MS4 operated salt and de-icing operations; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Fueling; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Solid waste disposal; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Street sweeper operations; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable • Illicit Discharges; <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable
<p>4. (4.6.C) Were training materials, written procedures for the training program, and a schedule for topics evaluated during this reporting period? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, please include an attachment describing what BMPs were not evaluated and why.</p>

5. **(4.6.D)** Was a list of municipal operations/facilities impacted by the MS4 permit maintained and evaluated during this reporting period?
☒ Yes ☐ No

6. **(4.6.E)** Was a list of all industrial facilities owned or operated by the permittee which are subject to NPDES permits for discharges of stormwater associated with industrial activity, maintained and evaluated during this reporting period? ☒ Yes ☐ No

7. **(4.6.F)** Were controls and procedures for reducing or eliminating the discharge of floatables and pollutants from municipal facilities evaluated during this reporting period? ☒ Yes ☐ No
 If **No**, please include an attachment describing what elements and procedures were not evaluated and why.

8. Were inspections conducted on these facilities at minimum annually? ☒ Yes ☐ No

9. Were the stormwater control measures and other programmatic BMPs for **4.6.E** determined effective/successful for this reporting period?
☒ Yes ☐ No
 If **No**, were the BMPs, and procedures determined to be ineffective/unsuccessful evaluated for modification or replacement?
☐ Yes ☐ No

10. **(4.6.G)** Were procedures for proper disposal of waste removed from the MS4 structures and areas of jurisdiction evaluated during this reporting period? ☒ Yes ☐ No
 If **No**, please include an attachment describing why the procedures were not evaluated.

11. **(4.6.H)** Was washing of municipal vehicles and/or equipment taking place on a facility owned and/or operated by the permittee during this reporting period? ☒ Yes ☐ No
 If **Yes**, were procedures for proper disposal of wash water evaluated during this reporting period? ☐ Yes ☐ No
 If **No**, please include an attachment describing what procedures were not evaluated and why.

12. **(4.6.I)** Did the permittee maintain written Stormwater Pollution Prevention Plans or an Operations and Maintenance Manual for all applicable MS4 facilities during this reporting period? ☒ Yes ☐ No
 If **No**, please include an attachment describing why the document(s) were not created and/maintained.

13. Did the permittee evaluate the results, controls, and inspection procedures to ensure compliance with the permit and determine if changes are needed? This evaluation may also aid in finding priority areas or pollutants in relation to MCM 3, or adding more education in relation to MCM 1. ☒ Yes ☐ No
 If **No**, please include an attachment describing what BMPs were not evaluated and why.

14. **(4.6.J)** Were any new flood management projects reviewed or begun during this reporting period? ☒ Yes ☐ No
 If **Yes**, were procedures used to determine if there are impacts to water quality for the new project? ☒ Yes ☐ No

15. Were the measurable goals for all BMPs for MCM 6 successfully reached? ☒ Yes ☐ No
 If **No**, were the measurable goals evaluated/modified in an effort for success in the next reporting period? ☐ Yes ☐ No

For each of the BMPs under this MCM, please provide a brief summary of how the measurable goals were achieved and documented. For any BMPs where the measurable goals were not achieved, provide a brief summary of how the BMP evaluated/modified in an effort for success in the coming reporting year.

16. **(4.6.K, 4.6.L, 4.6.M)** Were BMPs for MCM 6 determined effective/successful for this reporting period? ☒ Yes ☐ No
 If **No**, were the BMPs determined to be ineffective/unsuccessful evaluated for modification or replacement? ☐ Yes ☐ No

17. Were any changes made to MCM 6 during the reporting period that were not covered above? ☒ Yes ☐ No
 If **Yes**, please include an attachment describing changes.

Part E – MONITORING DATA WATER SAMPLE(S) ANALYSIS

Please include monitoring data collected during the reporting period.

PARAMETER OR INDICATOR	FREQUENCY (Ongoing monitoring or single diagnostic event or date)	RESULT	DRY WEATHER SAMPLE?	WET WEATHER SAMPLE?
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

2. Does the data support water quality attainment or support trend data toward water quality attainment?

☐ Yes ☐ No

If **Yes**, please describe.

N/A

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

1. Is your MS4 subject to an established or approved TMDL? ☐ Yes ☒ No

If **No**, please continue to Part G of this report.

2. Has the permittee submitted the TMDL ARAP to the Department for review and approval? ☐ Yes ☒ No

If **No**, please submit the annual status report providing a brief update on the status of completion of the TMDL ARAP per 6.1.H of the permit.

PART G – SUBMIT REPORT TO:

The facility must register in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. Registration and other information regarding MoGEM can be found at; [MoGEM Splash Page](#). Information about the eDMR system can be found at [eDMR Splash Page](#). To access the eDMR system, use: [MoGEM Login](#).

For assistance using the eDMR system, contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082.

OPTIONAL QUESTIONS REGARDING MILITARY SERVICE

Have you or an immediate family member ever served in the U.S. Armed Forces?

☐ Yes

☒ No

If yes, would you like information about military-related services in Missouri?

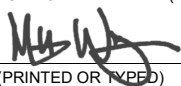
☐ Yes

☒ No

PART H - CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OR PERMITTEE (LEGALLY RESPONSIBLE PERSON)



DATE SIGNED

2/24/2023

NAME (PRINTED OR TYPED)

Mathew Wohlberg, P.E.

TITLE

Director of Engineering

Section B. Stormwater Management Program Progress and Compliance

OVERVIEW

Pursuant to the federal Water Pollution Control Act and Missouri Clean Water Law, the City of Wentzville has been issued a General State Operating Permit #MO-R0C4075 for the Wentzville Municipal Separate Storm Sewer System (MS4) that expires September 30, 2026.

This 2022 MS4 Permit Report summarizes accomplishments for the reporting period of January 1 through December 31, 2022. This report is organized according to requirements of the Missouri Department of Natural Resources (DNR) Stormwater Report Form MO 780-1846.

The SWMP Progress and Compliance matrix is divided into six sections for each of the permit's required Minimum Control Measures (MCMs). A general summary is provided at the beginning of each regarding the status of permit compliance as outlined in the City's 2021-2026 Stormwater Management Plan to address the requirements of the permit.

More detailed information about the City's permit requirements and the activities reported below are provided in Wentzville's Stormwater Management Plan available at www.wentzvillemo.gov/stormwater.



A local basin retrofitted to help address flooding concerns continues to serve the community and provide valuable habitat.

Liberty High School NHS cleans and beautifies Heartland Park. This is an area the City targets for continuous monitoring and litter cleanups due to the high volume of litter that drains into the park. This NHS is one of four groups that do cleanups as part of #HelpHeartland.

City staff pick up litter in McCoy Creek after a pollution prevention training.

Minimum Control Measure #1: Public Education and Outreach on Stormwater Impacts

Target Audiences: Residents, developers or construction site operators and local government employees. **Optional:** homeowners or neighborhood associations

Target Pollutants and Sources: Trash from littering/dumping; sediment runoff from construction/land disturbance; and the improper disposal of household/yard waste, oil, grease and fluids from vehicles

1. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS

Summary

All measurable goals for the public outreach component of the Stormwater Management Plan for 2021-2026 are on track and annual accomplishments have been included below. Multi-faceted outreach and involvement strategies and mediums allow the City to continue to reach a variety of audiences. The general public, city employees, construction contractors and homeowners associations are exposed to methods of pollution prevention and reduction through articles, public relations campaigns, newsletters, utility bill inserts, the City website and social media and volunteer opportunities. Live training events, such as contractor/developer onsite meetings and regional seminars, and public Stormwater Advisory Committee meetings continue to be effective in delivering specific messages and generating discussions with stakeholders.

Status of Measurable Goals

Task / BMP	Measurable Goal(s)	Tracking & Adaptive Management	Implementation Schedule	Individual(s) Responsible	Goal Complete?			Accomplishments
					Yes	No	On-track	
Outreach and Education BMPs								
Information on the MS4 Operator's website;	Maintain a web page with up to date information, & working links. All links shall be checked, and the page shall be updated as necessary at minimum annually. Must be maintained the entire year.	The number of hits shall be tracked. The MS4 Operator shall use this to see which messages get reactions, and if certain messages may need more education.	Ongoing Annual review by November 15	Stormwater Manager			X	1,485 Visits tracked by 633 Unique Users Activity peaks in March & April
Require installation of permanent embossed, or precast inlets with “No Dumping-Drains to Stream” or similar message.	Requirement for all new inlets in the MS4 area.	Number of inlets, the location of the inlets shall be tracked. These areas shall be noted on MCM #3 dry weather field screenings, and illicit discharge investigations as a method to determine if the markings are effective or if areas could benefit from the markings.	Ongoing	Engineering Managers & Stormwater Manager			X	Standard detail used in EDC; all in-house lid replacements have "Dump No Waste, Drains to Stream" message 78 Inlets marked/updated in GIS 3,634 Total inlets marked <i>*location of inlets are tracked in GIS</i>
Publish articles in a local newsletter, may be electronic.	Develop topics that are group-specific and address activities and or pollutants of concern at a seasonally appropriate time. A minimum of two articles annually shall be published or emailed.	To the extent possible evaluate the pollutant before the article, and again after to see if there has been a change. Consider including a mechanism to track active response such as following the social media account or a website to visit. Track those responses to determine if the article was effective in reaching people.	Ongoing	Strategic Communications Officer & Stormwater Manager			X	20 Articles and blurbs published or emailed covering recycling, yard waste, Mission: Clean Stream and litter pickups
Promote, host, or develop educational meetings, seminars, or trainings.	The events shall address ways attendees can minimize or avoid adverse stormwater impacts or practices to improve the quality of stormwater runoff. A minimum of two events shall be held, hosted or promoted annually. These events may address different pollutants/audiences.	Attendance and any distributed education materials shall be tracked. This shall be used to gauge interest in the topic. Consider using a questionnaire or follow-up survey to track if the attendees retained information or found the event beneficial.	Ongoing	Stormwater Manager			X	4 Educational meetings, seminars, or training events held, hosted or promoted
Targeted education campaign (via mail, email or in-person)	Minimum of one annually OR with a specific event. (Examples: Sediment control with small building permit; leaf litter email during street sweeping season, or education brochure to all businesses conducting certain activity.)	Education material distributed, or amount of people contacted shall be tracked. Follow up on if noticeable behavior has changed.	Ongoing	Stormwater Manager			X	4 Targeted education campaigns 21,000 households impacted with material distributed and over 17,000 followers on social media tracked.

Involvement BMPs								
Stream/lake or Watershed clean-up events; Litter clean-up events such as street or stream cleanups, park cleanup events, Mission: Clean Stream Adopt-A-Spot;	To be considered an event, the land area cleaned must be at minimum 2 acres, or 400 yards of stream/ streambank/ watershed, or 2 miles of roadside. (These may be combined such as 1 acre of land and 200 yards of stream.)	Track the area or distance cleaned (by acre, yard or lane miles), the amount of waste removed (by tonnage, cubic yard, or Stream Team bag count) and the attendance. Use the waste measurements to determine if there are priority areas for litter entering stormwater, or areas for illegal dumping.	Ongoing	Stormwater Manager			X	11.3 Miles of streams and roads 2,200 Pounds of litter removed from streams and roads
Stormwater-related speaker series	Provide a minimum of two sessions a year. These may be different speakers and/or audiences.	Record the attendance, the topic covered, and any training materials distributed. Use these numbers and interactions during the event to determine if the project or training covered a topic of interest and/or a topic that could be brought to a different or wider audience.	Ongoing	Stormwater Manager			X	4 Speaker series held 30 Attendees Materials distributed: Stream Care Guide Topics covered: Stream Team and other regional volunteer efforts including stream monitoring and litter pickup.
Ongoing yard waste collection, designated yard waste collection area, household hazardous waste collection, or street sweeping program.	Provide the service as an annual occurrence or at a readily accessible location. For street sweeping, this shall be conducted at minimum twice a year.	Track the amount collected. If educational information is being used in conjunction with this activity, track for changes due to the education. Tracking can be used with illicit discharge tracking, to determine if the rate of this type of discharges or dumping was reduced.	Ongoing	Director of Public Works			X	Ongoing yard waste collection and monthly/quarterly street sweeping services provided with the following material removed: 185 Tons with street sweeping 1.6 Tons with yard waste collection

2. PROGRESS TOWARDS ACHIEVING THE STATUTORY GOAL OF REDUCING THE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE (MEP) TO THE MS4

The quantifiable accomplishments listed above demonstrate the City's commitment to education and services that successfully reduce pollutants to the MEP. These strategies remained effective in meeting goals and target audiences. In response to public concerns about litter in Heartland Park lake and the City's historic downtown area, the #HelpHeartland and #ProtectOurWaterways social media campaigns extended into 2022. These programs were in partnership with the Parks and Recreation and Community Relations staff. The Community Development Department (Code Compliance Division) mailed 702 letters to local businesses reminding them to pick up litter on their property and close dumpster lids. This letter sent in November 2022 will assist with follow-up and compliance efforts in 2023. Local businesses are also encouraged to participate in community cleanup events like #HelpHeartland and Adopt-A-Spot through the Wentzville Sustainability Partner Program. Volunteers and staff continue to provide observations on effectiveness. This has led to continued support for securing a litter trap device for the regional detention lake forebay at Heartland Park. This device was purchased in 2022 and staff are currently reviewing the best location for the device.

Due to updated procedures in City programs and services, additional social media posts about yard waste, recycling and large items accompanied the normal social media posts and articles/publications this past year. More than 60 social media posts were dedicated to these topics.

List of any additional programmatic BMPs:

- 1) Wentzville Sustainability Partners
- 2) Utility bill inserts/door hangers/fact sheets: Stream Care Guides, "Pollution Found in Your Area" door knockers and Mission: Clean Stream litter utility bill inserts were distributed

3. NOTICE THAT THE CITY IS RELYING ON ANOTHER GOVERNMENT ENTITY TO SATISFY PERMIT OBLIGATIONS (IF APPLICABLE)

Name of Government Entity:	N/A	Contact Info:					
Primary Contact:		Specific BMPs or MCMs Entity Implements:					

4. CHANGES TO THE SWMP, BMPS OR THE MEASURABLE GOALS AND THE ITERATIVE PROCESSES THAT OCCURRED

The Public Education and Outreach on Stormwater Impacts Program was reviewed with regards to the BMPS tracked above to evaluate their effectiveness and implementation.

EVALUATE – Do the listed education/outreach BMPS target specific audiences and pollutants likely to have significant stormwater impacts? Do the listed BMPS target pollutants that were observed at illicit discharge concerns or inspections? **YES**
EFFECTIVE – Y or N? If no, change the target pollutants or audiences or change how the BMPS are administered to better address the observed pollutants or illicit discharges. Re-evaluate. If yes, keep target pollutants and audiences the same. **YES**

CHANGES – Are implementation procedures or BMPS updates required? **NO**

Were changes made and noted?

YES. This Implementation Matrix (previously a part of the SWMP) was revised to omit "Section 4. Summary of Stormwater Activities & Known Construction Activities to Begin During the Next Reporting Period," as this is no longer required by the MS4 ANNUAL STORMWATER MANAGEMENT PROGRAM REPORT FOR COMPREHENSIVE PERMIT. There are no other proposed changes to BMPS or measurable goals for this MCM in 2023.

5. LIST OF BMPS EVALUATED AND HOW BMPS WERE DETERMINED EFFECTIVE

Date of Review(s): 2/1/2022, 2/14/2022, 3/31/2022, 4/11/2022, 4/28/2022, 5/4/2022, 5/6/2022, 8/25/2022, 11/4/2022 11/15/2022, 11/17/2022, 11/30/2022, 12/31/2022

Reviewers: Jamie Paige and Kelly Dunlap

BMPS EVALUATED:

After reviewing all BMPS for the public outreach and involvement component of the Stormwater Management Plan for 2021-2026, staff determined that target audiences and pollutants are addressed by at least one of the BMPS listed and BMP implementation is appropriate and effective in achieving measurable goals. Additionally, feedback from volunteers, staff and the City's Stormwater Advisory Committee were taken into consideration to better refine how outreach BMPS can be implemented.

Minimum Control Measure #2: Public Participation

1. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS

Summary

All public participation tasks are on-track to being achieved. Board of Aldermen and Stormwater Advisory Committee meetings comply with state and local public notice requirements. Agendas and minutes are available on the City website. Stormwater Advisory Committee meetings engage stakeholders such as residents, trustees and businesses to help evaluate and improve the Stormwater Management Program. Meetings include an overview of permit-related activities and opportunities for input and guidance on what is appropriate for the community. The Concern Hotline and website continues to be useful to gauge customer knowledge, behaviors and attitudes when they report pollution and connect with staff to inquire about stormwater quality-related topics.

Status of Measurable Goals

Task / BMP	Measurable Goal(s)	Tracking & Adaptive Management	Implementation Schedule	Individual(s) Responsible	Goal Complete?			Accomplishments
					Yes	No	On-track	
SWMP Public Notice Period	30-day minimum public notice period for the draft permit and description of the SWMP which includes posting the SWMP online and providing a way for the public to submit comments	Track site visits. Track and respond to comments	Jan. 2021 Jan. 2026	Stormwater Manager			X	Public Notice Date: 1/25/2021 Renewal Application Date: 3/8/2021 SWMP available at www.wentzvillemo.gov/stormwater
SWMP Public Meeting	Post meeting date, time and location on website at least thirty days prior to meeting	Track meeting attendance and topics covered	Jan. 2021 Jan. 2026	Stormwater Manager			X	Public Meeting Notice Date: 1/25/2021 Public Notice posted on Website Public Meeting Date: 2/25/2021 Location: City Hall and virtual <i>*agendas & minutes with attendance and topics are on the City's website</i>
Concern Hotline	Annually advertise and maintain hotline with concern tracking system for citizens to report pollution or stormwater issues.	Annually track the topic, location and concern received and follow-up	Ongoing	City Clerk			X	Concern Hotline advertised on website and in articles; 297 Stormwater and pollution concerns tracked <i>*location of concerns are tracked in City's Customer Service Center system</i>
Stormwater Advisory Committee (<i>optional BMP</i>)	Implement a Stormwater Management Panel with citizen representation	Track meeting attendance, topics and feedback through agendas & minutes	Ongoing	Stormwater Manager			X	Are citizens on the panel? YES Is attendance recorded? YES <i>*agendas & minutes containing attendance and topics can be found on the City's website</i>
SWMP Update to the Governing Board	Annually update the City Board of Aldermen on SWMP status, compliance and updates	Track date and method of update	Annually by December 15	Director of Engineering and/or Stormwater Manager			X	Date of Update: 4/28/2022 Method of Update: Public Meeting MS4 Representative: Jamie Paige

2. PROGRESS TOWARDS ACHIEVING THE STATUTORY GOAL OF REDUCING THE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE (MEP) TO THE MS4

Opportunities for public involvement in development of the SWMP and accomplishments listed above demonstrate the successful implementation of BMPs/tasks to meet the measurable goals designed to reduce pollutants to the MEP. The City of Wentzville implements a variety of activities to engage the public and key stakeholder groups and organizations to become involved in various pollution prevention BMPs. Direct feedback from residents concerned about litter in the commercial Wentzville Parkway corridor prompted, strengthened and continued collaboration with the Community Development Department, Communications and Community Relations, and the Parks and Recreation Department.

List of additional events and/or programmatic BMPs:

- 1) Mission: Clean Stream: Volunteer surveys provide public feedback after the event about the type and location of pollutants found and effectiveness of BMPs
- 2) Litter Strategy and Partnerships: Wentzville Sustainability Partners

3. NOTICE THAT THE CITY IS RELYING ON ANOTHER GOVERNMENT ENTITY TO SATISFY PERMIT OBLIGATIONS (IF APPLICABLE)							
Name of Government Entity:	N/A		Contact Info:				
Primary Contact:			Specific BMPs or MCMs Entity Implements:				
4. CHANGES TO THE SWMP, BMPs OR THE MEASURABLE GOALS AND THE ITERATIVE PROCESSES THAT OCCURRED							
<p>The public participation program was reviewed with regards to attendance, inquiries or concerns to determine the effectiveness of 1) how to best reach the public, 2) the mechanisms used, 3) reaching the public and the MS4 governing board; and if the community and MS4 are working together to improve water quality.</p> <p>EVALUATE – Do BMPs provide opportunities for SWMP input from citizen representatives, stakeholders and volunteers? YES</p> <p>EFFECTIVE – Y or N? If no, change strategy to better address the target audience. Re-evaluate. If yes, continue BMP to track tasks and measurable goals to see if involvement level continues or increases. YES.</p> <p>CHANGES – Are implementation procedures or BMPs updates required? NO</p> <p>Were changes made and noted?</p> <p>YES. This Implementation Matrix (previously a part of the SWMP) was revised to omit "Section 4. Summary of Stormwater Activities & Known Construction Activities to Begin During the Next Reporting Period," as this is no longer required by the MS4 ANNUAL STORMWATER MANAGEMENT PROGRAM REPORT FOR COMPREHENSIVE PERMIT. There are no other proposed changes to BMPs or measurable goals for this MCM in 2023.</p>							
5. LIST OF BMPs EVALUATED AND HOW BMPs WERE DETERMINED EFFECTIVE							
<p>Date of Review(s): 1/13/2022, 4/28/2021, 6/14/2021, 11/15/2021</p> <p>Reviewers: Jamie Paige and Kelly Dunlap</p> <p>BMPs EVALUATED:</p> <p>All elected and optional BMPs listed above were evaluated and determined to be effective in actively engaging the public in development and implementation of the Stormwater Management Program. Achievements remain quantifiable and measurable goals meet new permit requirements. The Stormwater Advisory Committee public meetings offered a review of the comprehensive permit, MCMs and SWMP to evaluate and improve program effectiveness. Members provided positive feedback regarding the SWMP, outreach programs and community engagement. The Concern Hotline remains an effective method to encourage citizens to connect to the City to report activities that may cause pollution.</p>							

Minimum Control Measure #3: Illicit Discharge Detection and Elimination

1. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS

Summary

All measurable goals are on-track for completion and the regulatory mechanism for stormwater pollution control is enacted. The GIS data collection system has improved historical tracking of inspections and maintenance with water quality indicators. Dry weather field screenings and the Concern Hotline allowed the City to inspect permitted outfalls and outfalls based on public concern to determine compliance and locations of illicit discharges. Staff evaluated MS4 permit outfalls under the new permit definition and identified priority screening areas. Training opportunities and flyers continue to educate staff and the general public on ways they can become involved in detecting and tracing the source of illicit discharges. Alternative disposal options are available to customers for large-item pickup, yard waste and Household Hazardous Waste collected within the planned growth boundary.

Status of Measurable Goals

Task / BMP	Measurable Goal(s)	Tracking & Adaptive Management	Implementation Schedule	Individual(s) Responsible	Goal Complete?			Accomplishments
					Yes	No	On-track	
Storm System Mapping	Continue to update GIS map with stormwater outfalls, receiving waters and MS4 boundary.	Track the numbering/naming system of all outfalls; dates locations were verified and/or last field surveyed; and for newly added outfalls, the date added to the storm sewer system	Ongoing	Assistant Director of Engineering & Stormwater Manager			X	105 MS4 outfalls tracked and re-evaluated under new definition. Municipal boundary and receiving waters are mapped.
	Map MS4 outfalls per new definition in accordance with 4.3.O		November 2023				X	GIS mapping continues to be updated upon dedication/approval. Remaining MS4 outfalls to be re-evaluated in 2023.
Dry Weather Field Screening Strategy	Screen priority areas, such as those listed in 4.3.H, each year.	Prioritize and track MS4 outfalls screened based on priority areas (i.e. areas with ongoing or a history of illicit discharges, known litter/dumping issues, or increased citizen complaints). Priority areas may be revised as needed based on findings/concern resolution.	Annually by November 15	Stormwater Manager			X	Priority areas identified for 2022 consisted of outfalls in high-density commercial areas and older residential neighborhoods, including areas of previous concern.
	Screen a minimum of 60% of all MS4 outfalls during the permit cycle.	Track the number of MS4 outfalls screened; annually review pollutants discharged, locations and the effectiveness of outreach and enforcement to determine what modifications may be needed.	Ongoing through March 2026				X	150 Total outfalls screened in 2022 160 Outfalls cumulatively screened during permit cycle
Stormwater Pollution Control Ordinance	Maintain one ordinance(s) with provision for enforcement to prohibit non-stormwater discharges to the MS4	Regulatory mechanism with sanctions for enforcement continues to be in place and updated as needed to reflect new permit conditions	Ongoing	Stormwater Manager	X			Ordinance #3096 enacted
Illicit Discharge Detection & Enforcement	Conduct investigations in response to field screenings, complaints and spills.	Maintain a database or centralized system for tracking incidents, investigations, enforcement and follow-up.	Ongoing	Stormwater Manager			X	14 Illicit discharge concerns tracked
	Document all concerns and locations and removals of illicit discharges		Ongoing				X	1 Illicit discharge found and removed
	Combine the written procedures listed in SWMP MCM 3 into an Illicit Discharge SOP		March 2025				X	IDDE SOP drafted

IDDE Training Program	Implement or maintain an employee training program for applicable staff in conjunction with MCM 6, and within one year of being hired. Topics will target staff that routinely come into contact with materials which may become, or otherwise observe illicit discharges or illicit connections to the storm system. This includes spills, improper disposal, mismanagement, improper vehicle or equipment washing or rinsing as indicated by the O&M Manual	Continue to track the training topics in the O&M Manual and the number participants. Review training frequency and effectiveness after site inspections or incidents. Consider ways to survey or test staff to see if the training is effective.	November 2022 and ongoing	O&M Program Responsible Party Stormwater Manager			X	30 Participants from 8 Divisions/departments IDDE training for staff included all target pollutants listed in MCM 1, the City's Operations & Maintenance Plan and pollutants observed from concerns such as sediment and surfactants. Stormwater Division staff received chemical data collection training through the Stream Team program.
Stormwater Pollution Prevention Outreach	Annually inform target staff and the public about illicit discharges and the hazards of improper waste disposal by posting pollution detection information, alternative disposal options and/or the 24-hour Customer Service Center reporting form on the City website, in newsletter articles, using Pollution Found Doorknockers in areas of concern and/or with the O&M Program Manual or Training.	Track outreach methods used. Review outreach effectiveness biennially or as needed to consider updates or enhancements to improve reaching target audiences and outreach messages	November 2023 and ongoing	Strategic Communications Officer and Stormwater Manager			X	Outreach methods used: City website features ways to identify pollution, alternative disposal methods and 24-hour reporting form 20 Articles published on the website and in newsletters covering recycling, yard waste and litter pickup 4 Training opportunities offered

2. PROGRESS TOWARDS ACHIEVING THE STATUTORY GOAL OF REDUCING THE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE (MEP) TO THE MS4

Accomplishments listed above demonstrate success in reducing pollutants to the MEP. Of the illicit discharges found through concern reporting and screening, 100% were effectively removed. The Stormwater Pollution Control Ordinance continues to provide a process for incident inspection, response, and enforcement/remediation cost recovery, if needed. Through the Preventative Maintenance Program, staff continue to complete routine inspections and CCTV of older infrastructure across the City, and prior to acceptance/dedication of new infrastructure. This helps locate priority areas for storm system repairs and identify sources of illicit discharges.

Staff performed 150 dry weather field screenings of MS4 outfalls in 2022, including priority areas defined by concern history, age of infrastructure and land use. During these screenings, two illicit discharges were identified. Sources include sediment from an active construction site and carwash runoff. Staff continue to use and review inspection and enforcement procedures to effectively prevent pollution from entering into the MS4 system. Pollution prevention training for city staff continues to help alert MS4 operators of potential illicit discharges during other city inspections.

List of any additional programmatic BMPs (e.g. mapping of the entire storm sewer system, adopting a standard operating procedure for dry weather screening, etc.)

- 1) Storm sewer system: The entire system is mapped in GIS and updated more consistently and timely upon dedication/acceptance.
- 2) Stormwater Pollution Prevention Outreach: MS4, Code Compliance, the Employee Green Team, Economic Development Division and Parks staff have partnered to educate and incentivize business owners and customers to reduce litter in waterways and parks using #HelpHeartland and the Wentzville Sustainability Partners program.
- 3) Alternative disposal opportunities: The City's annual electronics recycling events, as well as curbside yard waste and large item trash pickup days and the Household Hazardous Waste Collection Program provide convenient disposal options for the public.

3. NOTICE THAT THE CITY IS RELYING ON ANOTHER GOVERNMENT ENTITY TO SATISFY PERMIT OBLIGATIONS (IF APPLICABLE)

Name of Government Entity:	N/A	Contact Info:						
Primary Contact:		Specific BMPs or MCMs Entity Implements:						

4. CHANGES TO THE SWMP, BMPS OR THE MEASURABLE GOALS AND THE ITERATIVE PROCESSES THAT OCCURRED

The IDDE program was reviewed with regards to new permit conditions and the BMPs tracked to evaluate their effectiveness and implementation.

EVALUATE – Are pollutants observed from concern inspections and screenings the same as those targeted by the education/outreach and enforcement BMPs and SOPs? **YES**

EFFECTIVE – Y or N? If no, change target pollutants/audiences, screening strategies, inspection and/or enforcement procedures based on types of concerns received and inspection results. Re-evaluate. If yes, maintain BMPs and SOPs based on types of concerns received and inspection results. **YES**

CHANGES – Are implementation procedures or BMPs updates required? **NO**

Were changes made and noted?

YES. This Implementation Matrix (previously a part of the SWMP) was revised to omit "Section 4. Summary of Stormwater Activities & Known Construction Activities to Begin During the Next Reporting Period," as this is no longer required by the MS4 ANNUAL STORMWATER MANAGEMENT PROGRAM REPORT FOR COMPREHENSIVE PERMIT. There are no other proposed changes to BMPs or measurable goals for this MCM in 2023.

5. LIST OF BMPS EVALUATED AND HOW BMPS WERE DETERMINED EFFECTIVE

Date of Review(s): 1/7/2022, 5/19/2022, 5/20/2022, 9/9/2022, 10/18/2022, 10/21/2022, 11/9/2022, 12/7/2022, 12/31/2022

Reviewers: Jamie Paige and Kelly Dunlap

BMPs EVALUATED:

All Illicit Discharge Detection and Elimination BMPs have been evaluated and determined to be effective using the iterative process above. The Stormwater Pollution Control Ordinance was deemed appropriate and continues to be used for enforcement procedures. During dry weather field screenings, priority areas were determined to be effective based on IDDE investigations and screenings. Priority areas defined in 4.3.H of the new permit were reviewed and remain appropriate for the SWMP. Having a centralized GIS-based asset inventory system has improved tracking, prioritization and inspection workflows. The centralized tracking system for incidents, investigations, enforcement and follow-up meets permit and city needs. Field screening of MS4 outfalls and priority areas with older sanitary lines occurs through the targeted and preventative maintenance inspection strategy. Condition assessments and dry weather screenings provide opportunities to target outreach efforts to reduce potential discharges. Outreach and training effectiveness was reviewed and determined that no updates or enhancements were needed to improve reaching target audiences and outreach messages. However, additional training opportunities will allow for further staff involvement in the IDDE program.

Minimum Control Measure #4: Construction Site Stormwater Runoff Control

1. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS

Summary

All ordinances and procedures for the construction runoff control component of the Stormwater Management Plan are on track to meet measurable goals and new permit conditions. Grading and improvement plans are reviewed for compliance with city codes. Stormwater pollution prevention plans (SWPPP) and sediment and erosion control plans are integrated into all site plan reviews greater than an acre. The Erosion and Sediment Control Ordinance and inspections remain the primary tool to require BMPs at construction sites; the ordinance includes sanctions to ensure compliance per permit section 4.4.A. In addition, Ord. 3634 includes an individual lot deposit (\$1,000 per lot or \$10,000 citywide lot deposit) that covers SWPPP BMP installation, maintenance and removal through the residential building permit construction phase.

Status of Measurable Goals

Task / BMP	Measurable Goal(s)	Tracking & Adaptive Management	Implementation Schedule	Individual(s) Responsible	Goal Complete?			Accomplishments
					Yes	No	On-track	
Construction Site Stormwater Runoff Control Ordinance(s)	Maintain one law, ordinance and/or regulatory mechanism with sanctions to require site operators to implement, and maintain BMPs to reduce pollutants to the MS4	Regulatory mechanism continues to be in place and defines sanctions for enforcement Update ordinance to reflect new permit conditions as needed	Ongoing	Director of Engineering	X			Municipal Code Chapters 515 and 410 (Ord. #3146 and #3634) continue to be enacted to regulate land disturbance projects and guarantee maintenance and improvements.
Pre-Construction Site Plan Reviews (SWPPP)	Review plans for construction projects >1 acre or smaller sites part of a larger common plan using a standardized checklist or criteria for consistency to incorporate consideration of water quality impacts such as slope, project size, proximity and sensitivity of receiving waters.	Annually track the number of engineering plan reviews. Evaluate the plan review SOP and criteria to consider ways to improve consideration of or reduce water quality impacts	Ongoing	Engineering Managers			X	32 Pre-Construction Site Plan Reviews
Construction Site Inspections & Enforcement	Establish and maintain authority and implement procedures for inspecting land disturbance projects including an escalating enforcement policy. Annually track oversight inspections, corrective and enforcement action by retaining the Development Construction Site SWPPP Inspection Forms and related correspondence. Continue to receive and consider information submitted by the public using the Customer Service Center and/or storing correspondence in the development project file.	Maintain an inventory for tracking active public and private projects including contact info, size of disturbance and site priority level. Review SWPPP inspection reports to evaluate needs to modify inspection priorities, training or enforcement procedures to better identify priority areas, assess compliance, evaluate BMP effectiveness and improve consistency. Respond to and annually track concerns and information received to determine if and what plan review, inspection and enforcement modifications are needed.	Update procedures by November 2023 Ongoing	Director of Engineering			X	Municipal Code Chapter 515 authorizes inspection, enforcement and SWPPP submittal requirements of land disturbance projects > 20,000 sq. ft. The Development Inspection SOP is implemented. Active projects are tracked electronically in a centralized folder: 4 Public (Capital) Projects 48 Private (Development) Projects 232 Private (New Residential Construction Permits) MS4 Oversight Inspections 98 on Public Projects 55 on Private Development 464 on Private Lots 702 Contractor inspection reports reviewed Site inspections are prioritized based on site size, proximity to surface water, history of non-compliance, etc. Customer Service Center advertised on website, in articles 297 Stormwater concerns tracked

Construction Site Runoff Control Training for MS4 inspectors and plan reviewers	Provide, or support access to, and track training once during the permit cycle at a minimum, or as needed	Track the staff attendance, topics and training provider/method used	November 2023	Director of Engineering & Stormwater Manager				X	20 Trainings hosted and promoted 105 Total Attendance SWPPP topics: MS4 permit inspection requirements, proper BMP selection, installation, inspection and/or maintenance. Training Provider/Method: MS4 Stormwater Manager and Senior Civil Engineer/ In-person meetings Inspectors and plan reviewers also learn about installation, maintenance and selection of construction site runoff controls when processing routine SWPPP inspections and responding to concerns with supervisor and/or Stormwater Manager oversight.
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2. PROGRESS TOWARDS ACHIEVING THE STATUTORY GOAL OF REDUCING THE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE (MEP) TO THE MS4

The BMPs/task progress and accomplishments listed above demonstrate reducing the discharge of pollutants to the MEP. Standard procedures for plan review include city staff evaluating land disturbances and pollution prevention strategies through pre-construction site plan review and comment prior to permitting. At project pre-construction meetings, contractors are provided a fillable SWPPP inspection report to help meet permit obligations and sediment/erosion control BMPs and requirements are reviewed. In addition, inspectors visit their assigned active grading sites weekly at a minimum and typically conduct SWPPP inspections at rough grading to ensure erosion and sediment controls are installed. Inspectors review SWPPP reports for compliance and inspection prioritization if reports are not received. Erosion control checks at residential footing inspections and review of construction site runoff controls at final yard inspections were completed for 232 new residential building permits. Several SWPPP training opportunities for builders, contractors and staff inspectors resumed this year, including a training hosted by St. Charles County attend by plan reviewers and construction inspectors.

The 24-hour online reporting tool remains instrumental for citizens to report issues to help reduce the discharge of pollutants. The number of construction-related concerns increased by roughly 30% from the last reporting period, pointing to improved education/awareness from citizens. Common reported issues that were addressed through follow up education and enforcement include inlet protection, sediment control and stabilization.

List of additional programmatic BMPs added to the SWMP (i.e. including onsite pre-construction visits, adopting a standard operating procedure for enforcement measures, etc.)

There were no additional BMPs added for the 2022 reporting period.

3. NOTICE THAT THE CITY IS RELYING ON ANOTHER GOVERNMENT ENTITY TO SATISFY PERMIT OBLIGATIONS (IF APPLICABLE)

Name of Government Entity:	N/A	Contact Info:						
Primary Contact:		Specific BMPs or MCMs Entity Implements:						

4. CHANGES TO THE SWMP, BMPs OR THE MEASURABLE GOALS AND THE ITERATIVE PROCESSES THAT OCCURRED

The construction site stormwater runoff control program was reviewed with regards to the BMPs tracked above to evaluate their effectiveness and implementation.

EVALUATE – Are pollutants observed from concerns and inspections the same as those targeted by the training, inspection and enforcement BMPs? **YES**

– Do SOPs and ordinances require operators to implement and maintain BMPs to reduce pollutants to the MS4? **YES**

EFFECTIVE - Y or N? If no, change target pollutants/audiences, inspection/enforcement priorities, SOPs or ordinances based on the types of concerns received and inspection observations or results. Re-evaluate. If yes, keep target pollutants/audiences, SOPs, etc. based on types of concerns received and inspection observations/results. **YES**

CHANGES – Are implementation procedures or BMPs updates required? **NO**

Were changes made and noted?

YES. This Implementation Matrix (previously a part of the SWMP) was revised to omit "Section 4. Summary of Stormwater Activities & Known Construction Activities to Begin During the Next Reporting Period," as this is no longer required by the MS4 ANNUAL STORMWATER MANAGEMENT PROGRAM REPORT FOR COMPREHENSIVE PERMIT. There are no other proposed changes to BMPs or measurable goals for this MCM in 2023.

5. LIST OF BMPS EVALUATED AND HOW BMPS WERE DETERMINED EFFECTIVE

Date of Review(s): 1/5/2022, 1/7/2022, 1/25/2022, 9/9/2022, 10/18/2022, 12/31/2022
Reviewers: Jamie Paige, Peter Masnica, Kelly Dunlap, Construction Inspectors and Plan Reviewers

- This annual review may include, but is not limited to:*
- X Evaluating the most common violations, how the violations are handled, how many are escalated;*
 - X If the education program can assist in reducing violations;*
 - X Determining if the site plans match the sites when violations arise or if additional items need to be evaluated at plan review;*
 - X Assessing public complaints being addressed in a timely manner; and*
 - X Evaluating if the inspections are thorough and consistent across different sites.*

BMPS EVALUATED: Ordinance, inspection/enforcement procedures, pre-construction site plan reviews, inspector training
These are indicated by "X" in the list above. Sediment and erosion control and code enforcement ordinances were reviewed for effectiveness based on customer concerns, common violations and enforcement strategies used. Construction site inspection and enforcement procedures were reviewed with regard to erosion control and stabilization during home construction yard approval. Development Inspection and Development Review SOPs, site BMPs, checklists and workflows were evaluated. Evaluation of pre-construction site plan reviews and training feedback from MS4 inspectors and plan reviewers continue to be important tools that confirm whether SWMP BMPs are appropriate and successful in achieving goals. BMPs were determined to be effective through the iterative process outlined above. However, site plan review procedures were revised to address guarantee expectations for water quality facilities and planting windows. Recommendations for consistency were also incorporated into the SmartGov e-permit and SWPPP tracking system.

Additionally, feedback from construction inspectors and plan review staff suggested that additional education/training and clarification was need to achieve more timely site stabilization. As a result, training was recommended for the following topics: SWPPP BMP installation and maintenance scheduling, conducting SWPPP inspections through the home construction process, and to improve consistency of tracking methods. This is anticipated to be achieved with enhanced workflows, training and check-ins as the City moves to a new e-permitting/online inspection system.

Minimum Control Measure #5: Post-Construction Stormwater Management in New Development and Redevelopment

1. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS

Summary

All ordinances and procedures for the post-construction component of the Stormwater Management Plan are on track to meet measurable goals. The Engineering Design Criteria provides standards for long-term stormwater facilities, as well as operations and maintenance plans and guarantees for maintenance. Planned growth policies help guide staff, developers, and elected boards when making land use decisions and directives.

Status of Measurable Goals

Task / BMP	Measurable Goal(s)	Tracking & Adaptive Management	Implementation Schedule	Individual(s) Responsible	Goal Complete?			Accomplishments
					Yes	No	On-track	
Post-Construction Runoff Ordinance (Engineering Design Criteria)	Maintain ordinance(s) that adopt design standards using a combination of structural and/or non-structural controls to minimize water quality impacts in accordance with permit conditions	Regulatory mechanism continues to be in place and defines maintenance responsibilities Update ordinance to reflect new permit conditions as needed	Ongoing	Director of Engineering	X			Municipal Code Chapters 505.200 (Ord. #2878 and revised by #3276 and #3635) continue to be enacted
Non-Structural Post-Construction Controls (Planned Growth Ordinances and Policies)	Maintain ordinance(s) that adopt preventative actions that involve management and source controls in accordance with permit conditions such as: Protect sensitive areas (stream riparian corridors and wetlands) Promote green infrastructure, minimizing impervious surfaces, disturbance of soil/vegetation Direct growth to identified areas, re-development, infill, and brownfields Maintain/increase open space	Track application of ordinances and Comprehensive Plan objectives through land use and improvement plan reviews. Review policies & standards as part of adaptive management and update as needed. Natural Watercourse Protection Ord. (25' buffer or more based on size) and Floodway Districts Engineering Design Criteria and Land Use Plan Reviews and Policy Wentzville Comprehensive Plan Tree Preservation and Planned Development Ordinances address preservation or open space minimums. Parks & Recreation parklands increase open space	Ongoing	Director of Engineering Director of Community Development	X			32 Site plan reviews tracked Natural Watercourse Protection Ord. and Floodplain Management implemented EDC promotes impervious cover reduction. Land use plan reviews assess site design options for protecting sensitive areas and minimizing disturbances. Comprehensive Plan adopted in 2018 guides land use decisions. The 2022 Amendatory Supplement incorporates and strengthens existing chapters and goals regarding topics such as alternative means of transportation, land development, climate-resilient utilities and responsible resource utilization. Open space, tree preservation and planned district ordinances are in place. Ord. 3660 improves the intent of Planned Development zoning requests to encourage this goal.

Pre-Construction Site Plan Reviews (Water Quality Non-structural & Structural BMPs)	Conduct plan reviews to assess site characteristics at the beginning of the design phase to ensure adequate planning for stormwater program compliance using a standardized plan review checklist. Evaluate non-structural BMP selection first using tools such as comprehensive plans, zoning ordinances, buffer strips and/or maximization/preservation of open space.	Annually track the number of engineering plan reviews. Evaluate the plan review SOP and/or checklist to consider ways to assess compliance and/or consistency	Ongoing	Engineering Managers			X	32 Pre-construction site plan reviews 28 Sites require post-construction water quality BMPs
BMP Operations & Maintenance Plans and Agreements	Agreements and maintenance plans are maintained on file for 100% of BMPs in affected developments	Annually review O&M plan and agreement requirements. Use staff feedback for potential improvements to improve long term O&M and records retention.	Ongoing	Engineering Managers			X	Maintenance covenants and plans tracked for 100% of stormwater quality BMPs
Water Quality Structural and Non-structural BMP Inspections & Enforcement	Inspect, or require inspection of, each water quality structural and non-structural BMPs to meet the following permit-required number of inspections/frequencies and tracking: a) 1 or more during construction b) 1 before the site is finalized (to verify they are built as designed, and any boundaries or practices for non-structural BMPs are observed) c) 1 or more during the first three years after installation by the MS4 Operator d) Annually by the BMP owner/operator or by the MS4 Operator e) 60% or more of all water quality BMPs within the five-year permit cycle, including those with ongoing/open enforcement issues Begin enforcement action within 30 days of discovering a violation (i.e. verbal, education, notices, fines etc.)	Evaluate ordinances and SOPs to determine if changes are needed to accomplish the inspection and enforcement goals of this BMP. If changes are needed, adopt changes by 11/2/2023 and evaluate if a written water quality BMP inspection and enforcement SOP needs to be formalized. Annually review inspection reports and trends with enforcement; evaluate if inspection priorities or enforcement should be modified based on need	Adopt changes by 11/2/2023 Ongoing	Engineering Manager & Stormwater Manager			X	Development Inspection SOP requires inspection of constructed BMPs. Final inspection reports document review and approval during construction and prior to approval. 21 Inspection reports reviewed of 89 WQ BMPs after construction 4 Site meetings were conducted with property owners to improve awareness of inspection and submittal requirements. 75 inspection reminders provided to property owners
Storm System Mapping	Continue to update GIS map with stormwater quality facilities (WQ BMPs), type, O&M files, approval dates, responsible party contacts, and maintenance activities (if MS4-owned)	Annually track stormwater quality facilities (WQ BMPs) on GIS map layers and through inspection records	Ongoing	Assistant Director of Engineering & Stormwater Manager			X	GIS mapping updated upon dedication/approval with facility type, approval dates, responsible party contacts, and maintenance activities (if MS4-owned). O&M covenants are stored in the development project file
Post-construction Runoff Control Training for MS4 inspectors and/or plan reviewers	Provide, or support access to, and track training once during the permit cycle at a minimum. Training shall explain the function of both structural and non-structural post-construction water quality BMPs. It may include green infrastructure, operations of proprietary BMPs, etc.	Track the staff attendance, topics and training provider/method used	Ongoing	Director of Engineering & Stormwater Manager			X	12 Inspectors and/or plan reviewers trained Topics: proper selection, installation, inspection or maintenance of controls Training Provider/Method: Site visits, department construction meetings and the St. Charles County Stormwater Seminar

2. Progress Towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable (MEP) to the MS4

Overall, the achievements above demonstrate the successful implementation of the BMPs/tasks designed to reduce pollutants to the MEP. The City's engineering design requirements address post-construction standards for water quality improvement for new and re-development, as required by permit. Stormwater quality facilities built to this standard are capturing and treating runoff from 90% of recorded daily rainfall events. This equates to treating more than 2.45M cubic feet of runoff from Wentzville MS4 to date. BMP operations & maintenance plans and agreements are in place for 100% of water quality BMPs prior to the City's final acceptance, improving long-term maintenance outcomes and pollution reduction potential. Continued implementation of the online Stormwater Quality Facility Inspection Portal and routine reminders help improve annual inspection submittals and awareness of maintenance responsibilities across sites.

Additionally, a variety of tools are implemented to guide land use decisions for new development, protect sensitive areas and address long-term stormwater runoff in the City of Wentzville. Natural physiographic features are evaluated and considered for protection through the City's Comprehensive Plan and Tree Preservation, Planned District, and Natural Watercourse Protection ordinances.

List of any additional programmatic BMPs and procedures:

- 1) Interpretive signage and outreach: Demonstration projects like Heartland Park and external outreach (Non-point Source Management Forum and River Soundings presentations) serve as a tool for stakeholders and reminder about the intent of BMPs such as forebays, bioretention, wetlands and pervious pavement.
- 2) Water Quality Inspections & Enforcement: e-permitting software was developed and enhanced to better track water quality facility asset and inspection information.
- 3) Citywide Hydrologic Assessment: To fulfill Comprehensive Plan goals, a stormwater grant from the Missouri Department of Natural Resources assisted with a citywide hydrologic assessment. This project evaluated the effectiveness of Channel Protection Volume requirements in the EDC (to reduce erosive velocity in streams). It also modeled future 'built-out' development scenarios to identify locations where potential streambank erosion issues may occur and potentially compromise or damage public infrastructure like sanitary lines. See Section 5 below for additional discussion about this study.

3. Notice that the City is Relying on Another Government Entity to Satisfy Permit Obligations (if applicable)

Name of Government Entity:	N/A	Contact Info:							
Primary Contact:		Specific BMPs or MCMs Entity Implements:							

4. Changes to the SWMP, BMPs or Measurable Goals and the Iterative Processes that Occurred

Iterative Process: Ordinances, Procedures and Enforcement

EVALUATE – Do procedures, agreements and ordinances ensure controls and strategies are in place and maintained to prevent or minimize water quality impacts or incentivize planned growth? **YES**

EFFECTIVE – Y or N? If no, change procedures, agreements or ordinances based on types of controls ineffectively used or maintained. Re-evaluate. If yes, continue BMPs and strategies. **YES**.

CHANGES – Are implementation procedures or BMPs updates required? **NO**

Were changes made and noted?

NO. Land use growth policies were evaluated as part of the Comprehensive Plan review and update process, with stakeholder reviews through the Planning & Zoning Commission. While effective, changes to water quality BMP inspections outlined in the SWMP are being drafted to address new permit requirements and tracking needs.

Iterative Process: Training and Outreach

EVALUATE – Are pollutants observed from concerns and inspections the same as those targeted by outreach and training? **YES**

EFFECTIVE – Y or N? If no, change pollution prevention outreach methods, targeted pollutants or audiences based on types of concerns received and inspection observations/results. Re-evaluate.

If yes, keep BMPs and strategies that provide measurable achievements. **YES**

CHANGES – Are implementation procedures or BMPs updates required? **NO**

Were changes made and noted?

YES. This Implementation Matrix (previously a part of the SWMP) was revised to omit "Section 4. Summary of Stormwater Activities & Known Construction Activities to Begin During the Next Reporting Period," as this is no longer required by the MS4 ANNUAL STORMWATER MANAGEMENT PROGRAM REPORT FOR COMPREHENSIVE PERMIT. There are no other proposed changes to BMPs or measurable goals for this MCM in 2023.

5. List of BMPs Evaluated and How BMPs were Determined Effective

Date of Review(s): 1/5/2022, 1/7/2022, 3/11/2022, 9/9/2022, 10/18/2022, 12/31/2022

Reviewer: Jamie Paige, Kelly Dunlap, Matt Binder, Peter Masnica, Construction Inspectors and Plan Reviewers

BMPs EVALUATED:

The City completed an annual review of the following (select all per 4.5.M):

- X Reviewing the number and types of developments;
- X How many BMPs were installed/inspected;
- X The amount of watershed area or water quality volume being treated;
- X The types of violations found and how frequently; and
- X How education could improve the effectiveness of the program.

The BMPs listed above continue to be evaluated for effectiveness in post-construction stormwater management for new development and redevelopment. Quantitative indicators include 100% review of stormwater quality facility inspection reports and site plan reviews conducted on 100% of all proposed developments.

Parts of the ordinance (Engineering Design Criteria) and non-structural controls (planned growth ordinances and policies) were also formally evaluated in this reporting period. Over the last several years, stakeholders in the development community had questioned design standards for stormwater management. The Channel Protection Volume (CPv) is one such standard in the City's design criteria. It is not required by the MS4 permit, but is used to reduce peak flows, help reduce stream channel erosion and potential subsequent damage to public infrastructure such as sanitary and water lines. The City completed a grant-funded Citywide Hydrologic Assessment in 2022 to evaluate the effectiveness of the CPv standard. This addresses a goal in the City's 2018 Comprehensive Plan to evaluate the current and future 'built-out' stormwater management needs through hydrologic modeling. The project reviewed existing stormwater control facilities and related ordinances such as natural watercourse buffers, floodplains, etc. As an outcome, modeling data was used to supported recommendations that were shared with the Stormwater Committee and elected officials, including the following:

- 1) To retain CPv standards as it was determined that it reduced flows from new development and positively impacted streams by decreasing velocity.
- 2) To consider additional measures as velocities lowered in a majority of stream reaches as a result of CPv, but velocities at many locations remained high enough to be deemed erosive.
- 3) Evaluation of ten locations where public infrastructure is, or will become impacted, and identification of four preliminary project areas and cost estimates to improve stream water quality, protect public health and reduce emergency repairs.

[illegible]

Minimum Control Measure #6: Pollution Prevention/Good Housekeeping for Municipal Operations

1. STATUS OF COMPLIANCE WITH PERMIT CONDITIONS

Summary

All measurable goals for the municipal operations component of the Stormwater Management Plan for 2021-2026 are on track and annual accomplishments are outlined below. The Operations and Maintenance (O&M) Plan was updated to reflect the new permit changes. While updating the O&M plan, staff reviewed current BMPs and identified training opportunities, outlined in section #4 below. Updated procedures, inspections and training opportunities are in place to implement the O&M program in 2023.

Status of Measurable Goals

Task / BMP	Measurable Goal(s)	Tracking & Adaptive Management	Implementation Schedule	Individual(s) Responsible	Goal Complete?			Accomplishments
					Yes	No	On-track	
O&M Employee Training (i.e. staff who work with material handling, at MS4 owned or operated vehicle/equipment maintenance areas, storage yards, and material storage facilities).	Promote, or conduct and maintain and utilize an employee training program for MS4 municipal operations staff. Trainings are given at minimum annually, during new staff orientations or as needed in accordance with the O&M Program Manual.	Track and review the applicable staff, training topics, number of trainings promoted/conducted and number of participants.	Ongoing	O&M Program Responsible Party, Stormwater Manager			X	6 Trainings promoted/conducted 91 Participants Topics: O&M Plan and BMPs Spill Response Illicit Discharges SWPPPs
Operations & Maintenance (O&M) Program	Update and maintain the O&M Program and Manual. Include pollution prevention controls, inspection and staff training schedules, and tracking requirements implemented annually. The O&M Manual shall be present onsite/electronically with staff at facilities. Develop maps and descriptions of structural controls/BMPs to reduce or prevent the discharge of floatables and pollutants from entering waters of the state or other MS4s where needed.	Track and review the applicable municipal operations, locations and BMPs that may have water quality impacts. Update program to reflect new facilities, operations, or BMPs as needed.	July 2022 and ongoing November 2022	Stormwater Manager & O&M Program Responsible Party		X	X	Responsible parties continue to administer their piece of the O&M Program and maintain the O&M at their location. Staff completed an annual review to address new facilities, changes in operations, materials used/stored, etc. O&M Manual updates will go into effect in 2023. Site maps and BMPs were created to add to the O&M Manual.
Municipal Facility Inspections & Maintenance	Perform inspection and maintenance activities at municipal facilities in accordance with the O&M Manual.	Track inspections, maintenance activities, and updates annually; keep on file through the permit cycle.	Ongoing	O&M Program Responsible Party, Stormwater Manager			X	24 Facility inspections conducted Corrective action/maintenance activities tracked
Flood Management Projects	Assess all new flood/stormwater projects for water quality impacts	Design criteria continue to be in place to assess all projects and recommend water quality protection practices/BMPs through Engineering plan review	Ongoing	Director of Engineering, Assistant Director of Engineering, Engineering Managers, Stormwater Manager			X	New flood management projects were reviewed for water quality standards as outlined in the EDC 2 Projects were reviewed 0 Projects required water quality BMPs

Road Salt/Brine/Deicer Alternatives	Annually track usage of rock salt, brine or other street deicers or salt alternatives for street deicing pre-treatment with the goal of reducing use of traditional road salt.	Evaluate and track use of traditional road salt and alternatives	Ongoing	Superintendent Streets & Signals				X	Rock salt & brine pre-treatment alternatives tracked: 1,555 Tons of salt for the season 186 Lane miles using 6.5 Tons of salt for 5,200 gallons of brine pre-treatment Water quality benefit: 5,200 gallons of brine used vs. 55.8 tons of traditional rock salt applied at 300 lbs./per center lane mile with pretreatment
Street Sweeping	Sweep main streets a minimum of twice yearly and a goal of twice monthly and subdivision streets quarterly, weather permitting	Track frequency of street sweeping operations, and estimated amount of debris removed	Ongoing	Superintendent Streets & Signals				X	Main streets frequency: Monthly Subdivision streets frequency: 5 Times/ year 185 Tons of debris removed

2. Progress Towards Achieving the Statutory Goal of Reducing the Discharge of Pollutants to the Maximum Extent Practicable (MEP) to the MS4

Street maintenance activities include routine sweeping operations and salt brine road applications, rather than rock salt for pre-treatment when appropriate. Staff in various departments continues to rotate on a two- to three-year training schedule to help expose many employees to spill prevention and response training. At the Public Works facility, the use of a vehicle/equipment wash bay and hydrodynamic separator treats runoff from the three-acre yard and reduces debris and sediment before leaving the site. Public concerns from the City's Concern Hotline are tracked on the City's centralized concern system. The new flood/stormwater projects reviewed were replacement of existing stormwater infrastructure, with no additional water quality requirements per the City's design standards.

List of any additional programmatic BMPs added to the SWMP (i.e. programmatic BMPs include new training program, adopting a standard operating procedure for equipment cleaning, etc.)

Not at this time. However, modifications to training schedules and BMPs were included in updates to the O&M Program Manual.

3. Notice that the City is Relying on Another Government Entity to Satisfy Permit Obligations (if applicable)

Name of Government Entity:	N/A	Contact Info:						
Primary Contact:		Specific BMPs or MCMs Entity Implements:						

4. Changes to the SWMP, BMPs or Measurable Goals and the Iterative Processes that Occurred

The O&M Program was reviewed with regards to the BMPs tracked above to evaluate their effectiveness and implementation.

EVALUATE – Were pollutants/results observed from concerns and inspection/maintenance logs the same as those targeted by procedures and training BMPs? YES

EFFECTIVE - Y or N? If no, change SOPs, schedules and/or training strategies based on types of concerns received and inspection observations/results to prevent or minimize water quality impacts. Re-evaluate. If yes, keep target pollutants, procedures and trainings. NO

CHANGES – Are implementation procedures or BMPs updates required? YES

Were changes made and noted?

YES. The O&M Manual was updated to address new permit requirements, including training topics, applicable departments/staff, and map and description of the structural Controls/BMPs used to reduce or prevent pollutants. This Implementation Matrix (previously a part of the SWMP) was revised to omit "Section 4. Summary of Stormwater Activities & Known Construction Activities to Begin During the Next Reporting Period," as this is no longer required by the MS4 ANNUAL STORMWATER MANAGEMENT PROGRAM REPORT FOR COMPREHENSIVE PERMIT. There are no other proposed changes to BMPs or measurable goals for this MCM in 2023.

5. List of BMPs Evaluated and How BMPs were Determined Effective

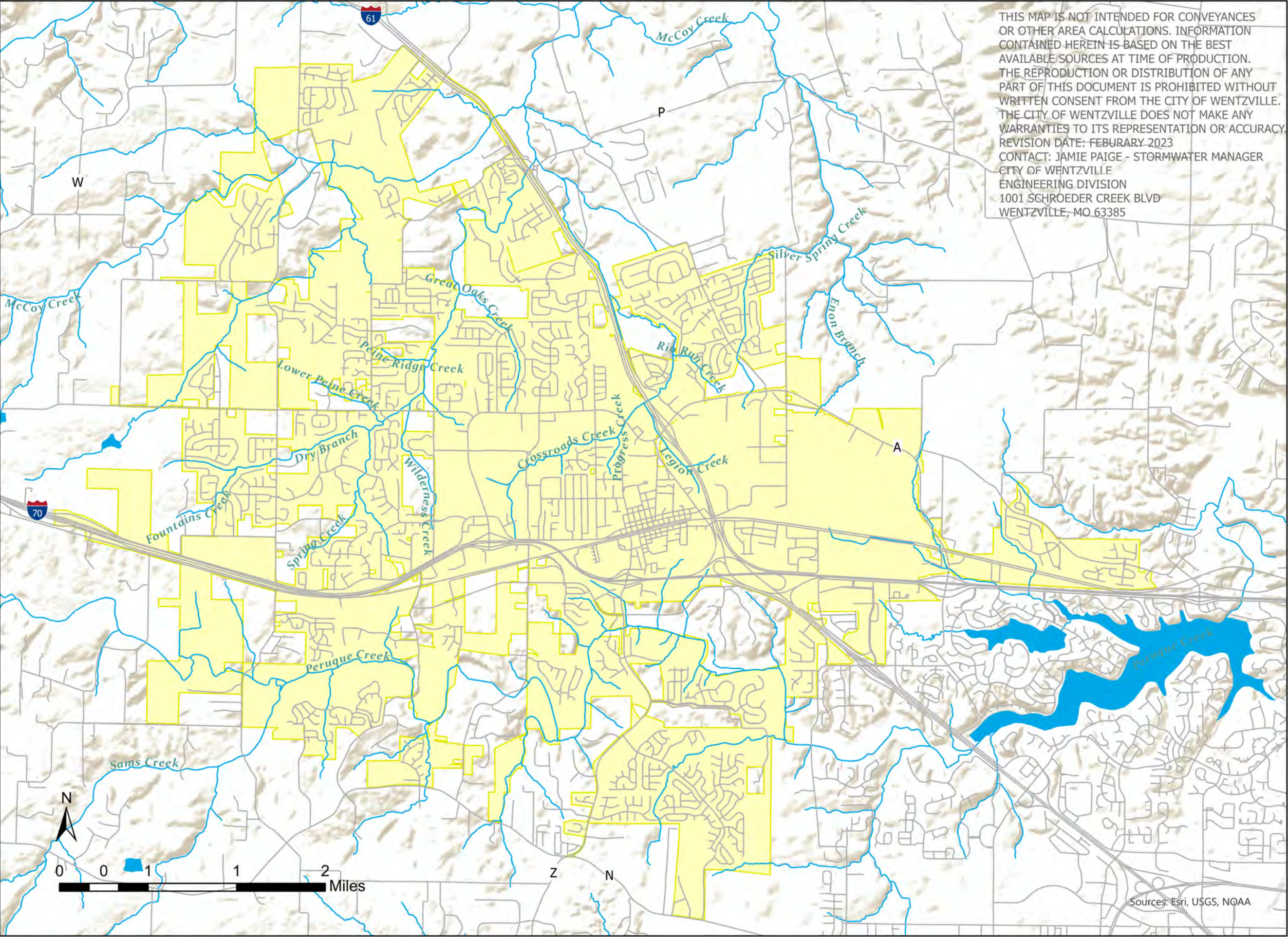
Date of Review(s): 7/1/2022, 9/9/2022, 11/9/2022, 12/7/2022
Reviewers: Jamie Paige, O&M Responsible Parties

BMPs EVALUATED:
All BMPs, implementation procedures, training, observations from inspections and maintenance reports and feedback from staff and the public were evaluated to assess the effectiveness of the O&M Program. Input was received through training seminars, inspection forms and each responsible party's reviews of the O&M Manual, etc.

Staff completed the iterative process in Section 4 above to assess the effectiveness of each BMP. BMPs were evaluated and determined to be effective when measurable goals are met or on track with the accomplishments listed. In 2022, the O&M Program Manual was reviewed and updated to comply with the new permit. Updates include: target pollutants; employee training schedule and seasonality considerations; tracking and mapping the list of municipally-managed sites and structural BMPs/controls; procedures for proper waste disposal and vehicle/equipment washing; and NPDES industrial facilities owned and operated by the City. This review included inspections at municipal locations and discussions with supervisors to ensure employee training covered all pertinent aspects of their department. This iterative review will influence the updates implemented in 2023 such as enhanced opportunities for employee training as mentioned in section 4 of this MCM above.

City of Wentzville Municipal Boundary Map

Areas incorporated into Wentzville corporate limits
are shown on the attached map.
Data as of July 2022.



Municipal Boundary Map

February 2023