

CITY OF MISHAWAKA AND BETHEL UNIVERSITY

MS4 NPDES PERMIT INR040106

STORM WATER QUALITY MANAGEMENT PLAN



City of Mishawaka
Mishawaka Utilities Wastewater Division
P.O. Box 363 | 1020 Lincolnway West
Mishawaka, IN 46544

Bethel University
1001 Bethel Circle
Mishawaka, IN 46544

MARCH 2023 (REVISION 1)

NOVEMBER 2004 (ORIGINAL)

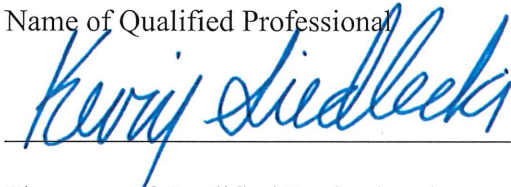
SWQMP Certification in accordance with 327 IAC 15-4-3(i) & MS4GP 4.9

"I certify under penalty of law that this document and attachments was 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."

Kevin J. Siedlecki, PE, Project Manager, Lawson-Fisher Associates P.C. March 31, 2023

Name of Qualified Professional

Date



March 31, 2023

Signature of Qualified Professional

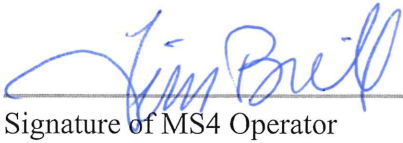
Date

Tim Brill, Division Manager, Mishawaka Utilities

March 31, 2023

Name of MS4 Operator

Date



4/3/2023

Signature of MS4 Operator

Date

CITY OF MISHAWAKA AND BETHEL UNIVERSITY
NPDES PERMIT INR040106
STORM WATER QUALITY MANAGEMENT PLAN

TABLE OF CONTENTS

1. SUMMARY AND GENERAL DATA ON MS4 ENTITY AND SYSTEM 1

 a) MS4 Boundary and Description 1

 b) MS4 Conveyances 1

 c) Program Evaluation and Current Use of Structural BMPs 1

 d) Coordination with Other Programs 2

2. STORM WATER QULITY MANAGEMENT PLAN FOR MINIMUM CONTROL MEASURES 2

 a) Public Education, Outreach, Participation, and Involvement MCM..... 2

 b) Illicit Discharge Detection and Elimination (IDDE) MCM 4

 c) Construction Site Storm Water Run-off MCM 7

 d) Post-Construction Storm Water Run-off MCM 7

 e) Municipal Operations Pollution Prevention and Good Housekeeping MCM..... 11

FIGURES

Figure 1 – MS4 Boundary Map

TABLES

- Table 1 – Public Education, Outreach, Participation, and Involvement BMPs
- Table 2 – Illicit Discharge Detection and Elimination BMPs
- Table 3 – Construction and Post-Construction Site Storm Water Run-off BMPs
- Table 4 – Municipal Operations Pollution Prevention and Good Housekeeping BMPs

CITY OF MISHAWAKA AND BETHEL UNIVERSITY
NPDES PERMIT INR040106
STORM WATER QUALITY MANAGEMENT PLAN

1. SUMMARY AND GENERAL DATA ON MS4 ENTITY AND SYSTEM

a) MS4 Boundary and Description

According to the MS4 General Permit (MS4GP) 4.2(a)(1), the Storm Water Quality Management Plan (SWQMP) must include the jurisdictional boundaries of the MS4 entity in a geographical information system (GIS) compatible format. The City of Mishawaka (City) and Bethel University (Bethel) are co-permittees and have agreed to share resources to complete the SWQMP.

The City and Bethel are located in St. Joseph County, Indiana in the north central portion of the state. The City has an approximate area of 11,776 acres and Bethel, located within the City limits, has an approximate area of 80 acres. The MS4 boundary for the City is the corporate limits. Figure 1 shows the City's corporate limits and Bethel's campus as of March, 2023. Bethel is located within the City limits and is generally bound by North Logan Street, West McKinley Avenue, Benton Street, West LaSalle Avenue, North Liberty Drive and West Lowell Avenue.

The City and Bethel are also members of the Michiana Stormwater Partnership (MSP). The MSP is a regional, collaborative approach to addressing stormwater related topics throughout the member communities, delivering a consistent message. The MSP frequently collaborates to meet the goals of the Public Education, Outreach, Participation, and Involvement Minimum Control Measure (MCM).

b) MS4 Conveyances

The following table presents the estimated length of storm conveyance designated by type.

<i>MS4 Entity</i>	<i>Storm Sewer⁽¹⁾ (lineal feet)</i>	<i>Open Channel⁽²⁾ (lineal feet)</i>
City of Mishawaka	616,500	98,000
Bethel University	1,125	0

⁽¹⁾Includes storm sewer conveyances, 12-inch or larger.

⁽²⁾Includes all open channels within the MS4 limits; St. Joseph County maintains the open channel regulated drains within the MS4 limits.

c) Program Evaluation and Current Use of Structural BMPs

According to MS4GP 4.2(a)(2), the SWQMP must include an evaluation of all structural stormwater management measures as identified in Section 4.4(d), 4.4(e), 4.6(d) through (f) and Section 4.7(g). Since November, 2004, the City and Bethel have implemented the SWQMP in accordance with Rule 13 Municipal Separate Storm Sewer Systems. With the adoption of Indiana's MS4GP in 2022, the City and Bethel have updated the SWQMP to include elements of the MS4GP. The City and Bethel already employ many existing Best Management Practices (BMPs) that address the MCMs required. The following sections describe and summarize the programs.

d) Coordination with Other Programs

According to MS4GP 4.4(j) the MS4 entity must review the long term control plan (LTCP) and the combined sewer operational plan (CSOOP) and make any language modifications to the SWQMP to ensure consistency between the two documents. The current version of the City's LTCP and CSOOP were reviewed for consistency with the MS4GP SWQMP MCMs. Both the LTCP and CSOOP include relevant topics related to stormwater run-off and are consistent with this SWQMP.

2. STORM WATER QUALITY MANAGEMENT PLAN FOR MINIMUM CONTROL MEASURES

According to MS4GP 4.2(a)(3) and (4) the SWQMP must include program goals that are established and required by this permit and a detailed program description for each MCM referenced in Sections 4.3 through 4.7. The following five sections describe the proposed SWQMP for each of the MCMs. The BMPs included in this SWQMP are based on the requirements of the new MS4GP and the evolution of the City and Bethel's operations since the SWQMP's initial adoption in November 2004.

a) Public Education, Outreach, Participation, and Involvement MCM

According to MS4GP 4.3(a) through (e),(g), and (h), the City and Bethel have developed measurable goals and implemented a public education, outreach, participation, and involvement program that includes strategies to inform identified constituent groups about the impacts of stormwater run-off. Bethel is responsible for the majority of this MCM, with support from the City. Periodic meetings with the MSP are also held to collaborate and brainstorm stormwater related educational activities and workshops to ensure a consistent, regional approach. Table 1 on the following page provides a summary of the MCM BMPs, measurable goals, tracking, programmatic indicators, schedule, and responsible parties.

Table 1
SWQMP - City of Mishawaka and Bethel University
Public Education, Outreach, Participation, and Involvement BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
Public Education and Involvement Plan 4.3(a)(1)	Identify targeted constituents and develop a plan in cooperation with the Michiana Stormwater Partnership (MSP) for stormwater public education and involvement.	Document and track outreach events, activities and participants and assess if the goals and objectives were met.	Annually - 2023-2027	City of Mishawaka and Bethel University MS4 Staff
Identify three community wide stormwater quality issues 4.3(a)(2)	Develop a list of three stormwater quality issues in cooperation with the MSP and target at least one event for each construction, residential, and commercial/industrial groups.	Identify stormwater quality issues in the first year of permit coverage. Target at least one event for each group during the permit cycle.	July 2023 Annually - 2024-2027	City of Mishawaka and Bethel University MS4 Staff
Public Events 4.3(a)(3)	Conduct at least two public events annually including any collaborative events with MSP or other entities.	Document and track number of stormwater runoff events, target audience, and topics covered.	Annually - 2023-2027	City of Mishawaka and Bethel University MS4 Staff
Stormwater Education 4.3(a)(4) 4.3(b)(d)	Develop educational materials for distribution and outreach to constituents. Develop and implement a program for educating public employees, schools, businesses, and the general public about illicit discharges and proper disposal of waste: Develop informational brochures and guidance documents that target specific audiences. Create an outreach plan for distribution of educational materials.	Identify existing brochures, pamphlets, newsletters, and utility stuffers distributed and dates. Document and track number of people receiving and number of class sessions on water quality education. Describe behavioral changes observed. Maintain a list of materials developed, utilized, and how distributed..	Annually - 2023-2027	City of Mishawaka and Bethel University MS4 Staff
Annual Training related to the construction site run-off and post-construction MCMs 4.3(a)(5)	Provide training opportunities for builders, developers, contractors, engineers, etc. in cooperation with MSP.	Document and track people/groups reached and topics covered.	Annually - 2023-2027	City of Mishawaka and Bethel University MS4 Staff
Stormwater Public Information Web Page or Links 4.3(b) and (c)	Create, revise, or update a stormwater public information web page. Include: Location to report stormwater quality issues. Educational and informational resources. MS4 stormwater ordinances. MS4 program information (SWQMP, Annual Reports, etc.).	Update web page annually or as necessary. Track number of web page visitors. Document and/or track the questions/comments received via the webpage.	Annually - 2023-2027	City of Mishawaka MS4 Staff
Elected Officials or Advisory Board Update 4.3(e)	Report stormwater program updates to elected officials or an advisory board.	Document and track list of attendees and information distributed.	Annually - 2023-2027	City of Mishawaka MS4 Staff
Annual Report 4.3(g)(h)	Implement and assess the program annually and update goals as necessary. Report progress in an annual report to IDEM.	Status of measurable goals, program requirements, compliance schedules, and timetables. List and description of events and activities, number of attendees, and whether goals were met. Track number and types of construction and/or post-construction training opportunities that were provided. Documentation that stormwater program updates were reported to elected officials or advisory board. Describe each targeted audience, how they were reached, and any behavioral changes observed. List of all public educational materials used.	April 2023 April 2024 April 2025 April 2026 April 2027	City of Mishawaka MS4 Staff

b) Illicit Discharge Detection and Elimination (IDDE) MCM

According to MS4GP 4.4(a), (b), and (d) through (i), and (k), the BMPs under the IDDE MCM focus on reviewing and implementing procedures and programs to identify illicit discharges into the storm sewer system (and eliminating them) for each MS4 entity. The City and Bethel are individually responsible for this MCM.

Since the initial SWQMP implementation began in 2004, the City adopted an IDDE Ordinance and has been able to enforce it since adoption. The City also follows IDDE SOPs that were recently updated to track follow-up actions taken as a result of investigations.

Additionally, the City has developed and continuously maintained a GIS map of its stormwater conveyance system accessible to all employees who are responsible for the implementation of this MCM. The map is updated as new infrastructure is built and as any new information relevant to the system is discovered. Table 2 on the following page provides a summary of the MCM BMPs, measurable goals, tracking, programmatic indicators, schedule, and responsible parties.

Table 2
SWQMP - City of Mishawaka and Bethel University
Illicit Discharge Detection and Elimination BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
IDDE Ordinance 4.4(a) 4.1(i)	Review and update IDDE ordinance and enforcement policy and procedures to comply with the MS4GP no later than 730 days after submittal of Notice of Intent.	Existing IDDE Ord. No. 5265 approved August 2, 2010. Review and update as necessary to comply with MS4GP. Enforcement of ordinance.	July 2024	City of Mishawaka MS4 Staff
IDDE Plan 4.4(b)	Review and update IDDE Plan in the first year of coverage.	Existing IDDE Plan completed August 2012. Review and update IDDEM plan. Include: Standard operating procedures (SOPs) to locate problem areas via dry weather screening. Schedule to screen stormwater outfalls owned/operated by the MS4 entity. Identify and map all active industrial facilities within the MS4 area that discharge to an MS4 conveyance. Participate and/or coordinate activities that are used to keep commonly dumped wastes out of the collection system. SOPs that provide investigators with guidance and forms to ensure that consistent investigations occur for every known illicit discharge. Review and update implementation of a program for public reporting of illicit discharges and spills. Document and track number of illicit discharges, dates, observations, follow-up actions, and date investigation closed.	December 2023	City of Mishawaka MS4 Staff
Stormwater System Map 4.4(d),(e),(f)	Update map as new stormwater outfalls are added to system. Review/update map of stormwater outfalls and conveyance systems at least annually. Develop/review/update high priority areas for administering IDDE program based on land use, prior history and frequency of discharges..	Update map as part of as-built procedures, or at least annually. Develop/review/update a map that identifies high priority areas in the first year of coverage.	Update annually July 2023	City of Mishawaka MS4 Staff
IDDE Training Program for Employees 4.4(g)	Develop or review and update a training program for employees.	Implement training program 180 days following submittal of an updated SWQMP to IDEM. Conduct annual training for employees whose normal job responsibilities include investigation of IDDE. Document and track number of training sessions, attendees, and topics covered.	October 2023 Annually - 2023-2027	City of Mishawaka MS4 Staff
Dry Weather Screening 4.4(h)	Conduct dry weather screening to detect and eliminate illicit discharges for mapped stormwater outfalls owned and/or operated by the MS4 entity.	Screen 100% of outfalls by end of permit cycle. Screen non-stormwater discharges from MS4 owned/operated outfalls until discharge has been eliminated or determined to be uncontaminated.	July 2027 Continuous throughout permit cycle.	City of Mishawaka MS4 Staff and consultant

Table 2 (Continued)
SWQMP - City of Mishawaka and Bethel University
Illicit Discharge Detection and Elimination BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
Annual Report 4.4(i) and (k)	Review and assess the program annually and update as necessary. Report progress in an annual report to IDEM.	Include as necessary: Status of goals, requirements, compliance schedules, and timetables. IDDE program updates. Summary of storm sewer mapping updates. Number of new MS4 outfalls mapped. Number and location of dry weather outfalls screened. Number and location of illicit discharges detected. Number and location of illicit discharges eliminated. Number of illicit discharges and/or spills reported. Number of enforcement actions taken.	April 2023 April 2024 April 2025 April 2026 April 2027	City of Mishawaka MS4 Staff

c) Construction Site Storm Water Run-off MCM

According to MS4GP 4.5(b) through (g) and (i) through (m), the SWQMP BMPs implemented under this MCM focus on reviewing, updating, implementing, managing, and enforcing an erosion and sediment control program for construction activities that disturb one (1), or more, acres of land, or disturbances of less than one (1) acre of land that are part of a larger, common plan of development or sale if the larger common plan will ultimately disturb one (1) or more acres of land within the MS4 area. Since the initial SWQMP implementation in 2004, the City adopted an erosion and sediment control ordinance and requires erosion control measures for all developments in the City, even those less than one acre. The City's ordinance will be reviewed and updated to meet the requirements of the new Construction Stormwater General Permit (formerly Rule 5). The City is responsible for this program. Bethel will be required to meet the requirements of this program, since the University is located within the City corporate limits and is subject to City ordinances. Table 3 on the following page provides a summary of the MCM BMPs, measurable goals, tracking, programmatic indicators, schedule, and responsible parties.

d) Post-Construction Site Storm Water Run-off MCM

According to MS4GP 4.6(b) through (f) and (h) through (j), the SWQMP BMPs implemented under this MCM focus on reducing pollutant loading directed to receiving streams from new development and redevelopment areas that disturb one (1), or more, acres of land, or disturbances of less than one (1) acre of land that are part of a larger, common plan of development or sale if the larger common plan will ultimately disturb one (1) or more acres of land within the MS4 area. The City is responsible for reviewing and updating, implementing, and managing the program. Bethel will be required to meet the requirements of this program, since the University is located within the City's corporate limits and is subject to City ordinances. Since the initial SWQMP in 2004, the City's stormwater standards and details have been developed and implemented to manage post-construction site stormwater run-off throughout the MS4. The current stormwater standards will be reviewed and updated as necessary to meet the requirements of the new MS4GP. Table 3, on the following page, provides a summary of the MCM BMPs, measurable goals, tracking, programmatic indicators, schedule, and responsible parties.

Table 3
SWQMP - City of Mishawaka and Bethel University
Construction and Post-Construction Site Storm Water Run-off BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
Erosion and Sediment Control Ordinance 4.1(i) 4.5(b) 4.6(b)	MS4 entities renewing permit coverage must update existing ordinances no later than 730 days after Notice of Intent submittal. Update and revise erosion control ordinance 5085 to comply with applicable sections of the MS4GP and CSGP.	Update/revise ordinance. Review ordinance at least once per permit cycle.	July 2024	City of Mishawaka MS4 Staff
Plan Review and Permitting Procedures 4.5(c)	The City utilizes the SWPPP Review Guidance and the SWPPP Technical Review Form provided by IDEM in 2022. Internal permitting procedures were updated in 2022. Review and update construction plan review and permitting procedures, internal processes, and timetables.	Update procedures to review and determine compliance for construction plans, as necessary. Update a form or checklist to notify responsible individuals of plan status.	Continuous throughout permit cycle.	City of Mishawaka MS4 Staff
Construction Inspection Procedures and Frequencies 4.5(d)	Establish or update procedures or internal processes to inspect construction sites and confirm stormwater quality measures are installed and maintained properly.	Review and update a form or checklist to document inspections. Identify priority sites for inspection. Inspect 100% of all new construction sites at least once during the initial phase of construction. Inspect 100% of active construction sites greater than 5 acres of land disturbance and priority sites biannually. Inspect 50% of active construction sites with land disturbance of less than 5, but at least 1 acre annually. Investigate 100% of all complaints received and conduct follow-up inspections for violations of the local ordinance until resolved.	May 2023-2027 May 2023-2027 December 2023 December 2024 December 2025 December 2026 December 2027 Inspections are continuous throughout permit cycle.	City of Mishawaka MS4 Staff
Enforcement Procedures 4.5(e)	Establish or update policy and procedures to enforce local ordinance or MS4GP and CSGP.	Establish procedures to address violations and enforce ordinance.	July 2024	City of Mishawaka MS4 Staff
Stormwater Quality Standards, Specifications, and Performance 4.5(f) and 4.6(c)	The City updated the erosion and sediment control standards February 2022. Review and update standards and specifications for implementing stormwater quality measures on construction sites and performance standards for post-construction stormwater run-off.	Review and/or update standards annually or as necessary.	April 2023-2027	City of Mishawaka MS4 Staff
Public Inquiry and Complaint Procedures 4.5(g)	The City utilizes their website for reporting drainage problems. Review and/or update procedures for receipt, resolution, and tracking of public inquiries and complaints related to construction projects.	Document inquiries and complaints received, corrective actions taken, total number of reports, and their resolution status.	Continuous throughout permit cycle.	City of Mishawaka MS4 Staff

Table 3 (Continued)
SWQMP - City of Mishawaka and Bethel University
Construction and Post-Construction Site Storm Water Run-off BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
Post-Construction Operational and Maintenance Plan for Stormwater Structural Measures 4.6(d)	<p>Develop and implement an operation and maintenance (O&M) plan or requirement for stormwater structural measures to ensure long-term O&M.</p> <p>Requirements must be enforceable and include one or more of the following:</p> <p>Owner/operator signed statement accepting responsibility for maintenance when the property is legally transferred.</p> <p>Written conditions in a sales or lease agreement that require the recipient to assume responsibility.</p> <p>Written conditions for residential properties operated by a homeowner’s association or other entity.</p> <p>Any other legal agreement that assigns permanent responsibility for maintenance.</p>	<p>Develop, review, and/or update an O&M plan or requirements for structural BMPs.</p> <p>Enforce long-term O&M requirements.</p>	June 2024	City of Mishawaka MS4 Staff
Post-Construction Inspection Program and Procedures 4.6(e) and (f)	<p>Administer an inspection program to ensure that post-construction measures are maintained and operational for those owned and/or operated by the MS4 entity and as appropriate for those measures operated by private entities.</p> <p>Develop written procedures and internal processes to inspect post-construction measures.</p>	<p>Develop a form, checklist, or alternative to document inspections and a method to notify responsible individuals of compliance.</p> <p>Inspect 100% of all post-construction measures owned and/or operated by the MS4 entity by the end of the permit cycle.</p> <p>Inspect post-construction measures that were implemented beginning at the time of adoption of the MS4 post-construction ordinance.</p> <p>Inspect all measures for which complaints are received; take corrective action for measures that are not functioning or where compliance issues have been identified.</p>	<p>January 2027 Program Develop.</p> <p>June 2027 Procedures Implement.</p>	City of Mishawaka MS4 Staff
Staff Training 4.5(j) and 4.6(i)	Document training attended by MS4 staff that are specific to their responsibilities (plan review, inspection, compliance, and enforcement).	<p>Track annual MS4 staff training.</p> <p>Document responsibilities of staff member, dates and type of training attended, and professional certifications obtained.</p>	December 2023-2027	City of Mishawaka and Bethel University MS4 Staff
Construction Stormwater General Permit (CSGP) Compliance 4.5(k)	Comply with the requirements of the CSGP and MS4 ordinance for MS4 owned/operated projects.	<p>Submit construction/stormwater pollution prevention plans to the SWCD for review and determination the plan meets the CSGP requirements.</p> <p>Comply with the provisions of the MS4 ordinance.</p> <p>Develop policy and procedures that addresses coordination across departments within the MS4 entity's organizational structure and includes project self-monitoring.</p>	Continuous throughout permit cycle.	City of Mishawaka MS4 Staff
Construction Site Inventory 4.5(l)	Maintain an inventory of construction site projects that are subject to the CSGP, MS4 ordinance, and those owned/operated by the MS4.	<p>Review and update construction site inventory.</p> <p>Track project information.</p>	Continuous throughout permit cycle.	City of Mishawaka MS4 Staff

Table 3 (Continued)
SWQMP - City of Mishawaka and Bethel University
Construction and Post-Construction Site Storm Water Run-off BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
Annual Report 4.5(i) 4.5(m)	Review and assess the construction stormwater runoff program. Report progress in an annual report to IDEM.	Include in annual report: Status of measurable goals, program requirements, compliance schedules, and timetables. Number of active construction projects owned and/or operated by the MS4 entity. Number of construction sites issued a stormwater run-off permit by the MS4 entity. Number of construction sites inspected. Number and type of enforcement actions taken. Number of public information requests/complaints received.	April 2023 April 2024 April 2025 April 2026 April 2027	City of Mishawaka MS4 Staff
Annual Report 4.6(h) 4.6(j)	Review and assess the post-construction stormwater runoff program. Report progress in an annual report to IDEM.	Include in annual report: Status of measurable goals, program requirements, compliance schedules, and timetables. Updates to ordinances. Number of sites required post-construction controls. Number, type, and location of structural measures installed. Number, type, and location of structural measures modified to function properly or improve water quality benefits. Number, type, and location of structural measures inspected to ensure each meets design requirements and/or are being maintained.	April 2023 April 2024 April 2025 April 2026 April 2027	City of Mishawaka MS4 Staff

e) Municipal Operations Pollution Prevention and Good Housekeeping MCM

The SWQMP BMPs implemented under this MCM focus on pollution prevention and good housekeeping. This MCM will address the requirements to ensure that standard operations within the MS4s are performed in ways that will reduce pollutant runoff and contamination to storm water discharges. Both the City and Bethel are responsible for development and implementation of this MCM. Since the initial SWQMP was implemented in 2004, each MS4 owned and operated facility has a Storm Water Pollution Prevention Plan (SWPPP) which is reviewed and self-inspected regularly. Table 4 on the following page provides a summary of the MCM BMPs, measurable goals, tracking, programmatic indicators, schedule, and responsible parties.

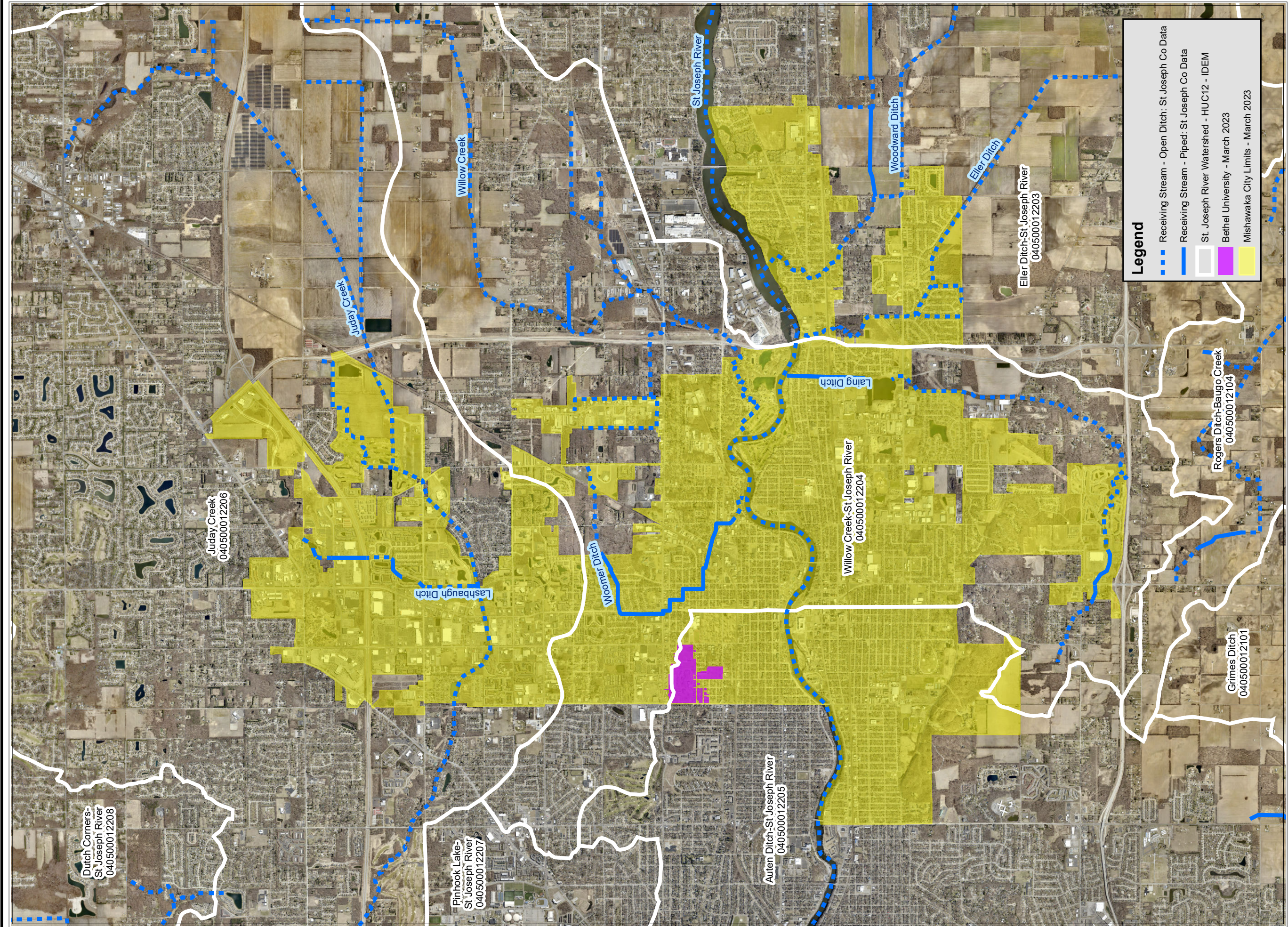
Table 4
SWQMP - City of Mishawaka and Bethel University
Municipal Operations Pollution Prevention and Good Housekeeping BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
MS4 Facility Storm Water Pollution Prevention Plans (SWPPPs) 4.7(b) thru (f)	Maintain Inventory of MS4 owned/operated facilities. Annual assessment of MS4 facilities that use, store, or discharge pollutants. Review or update facility SWPPP(s). Maintain a copy of the SWPPP at each facility. Perform facility inspections.	Update MS4 facility SWPPPs and maps. Complete an annual assessment of MS4 facilities Develop procedures to review SWPPPs, to take corrective action when identifying an issue, and operational procedures to achieve performance objectives for stormwater management. Perform and document quarterly facility inspections with one of the quarterly inspections performed by the MS4 Coordinator or designated individual.	Annually 2023-2027 Quarterly facility inspections.	City of Mishawaka and Bethel University MS4 Staff
Stormwater Infrastructure Operation and Maintenance Plan 4.7(g)	Develop an O&M plan for stormwater infrastructure: Procedures for documented disposal of waste or materials removed from storm sewer system and operational areas. Written documentation of maintenance activities and schedules, and long term inspection procedures for storm water management measures. Surface visual inspection of all catch basins, outfalls, and conveyance systems. Program to maintain MS4 conveyances and structures. Procedures to reduce the discharge of pollutants from MS4 owned and/or operated streets and parking lots.	Summarize disposal procedure or process. Summarize maintenance program for stormwater management including documentation of litter pickup, structure cleaning, roadside shoulder and ditch stabilization, planting and proper care of roadside vegetation, and remediation of outfall scouring conditions. Document issues found during surface visual inspection; develop maintenance and corrective action plans to target problem areas; develop procedures to reduce pollutant discharge from MS4 owned/operated streets and parking lots.	Inspect entire stormwater system by end of year 5 and at least 15% annually.	City of Mishawaka and Bethel University MS4 Staff
Third-Party Entities Hired by MS4 4.7(j)	Develop procedures to ensure contractors or third-party entities hired by the MS4 to perform stormwater system maintenance are required to comply with MS4 good housekeeping practices.	Review effectiveness and/or update procedure as necessary. Document compliance/enforcement actions taken.	Continuous throughout permit cycle.	City of Mishawaka and Bethel University MS4 Staff
Flood Control Structures 4.7(k) and (l)	Assess new flood control structures for their impacts on water quality and quantity during the planning and design phase. Evaluate existing flood control structures owned and/or operated by the MS4.	Document new flood control structure assessments. Modify structures as necessary to improve water quality.	Continuous throughout permit cycle.	City of Mishawaka MS4 Staff
Employee Training 4.7(m)	Develop/implement training for employees involved in implementing good housekeeping for MS4 owned and/or operated infrastructure and facilities.	Implement training directly related to an employee's responsibilities. Implement training for new full-time and part-time hires and seasonal employees. Document that employees have been properly trained, including name, position, date, and description of training.	Within 60 days of hire (full and part-time). Within 30 days of hire (seasonal).	City of Mishawaka and Bethel University MS4 Staff


Table 4
SWQMP - City of Mishawaka and Bethel University
Municipal Operations Pollution Prevention and Good Housekeeping BMPs

Best Management Practice	Best Management Practice Description	Measurable Goals, Tracking, Performance Indicators	Timeline	Responsible Party
Annual Report 4.7(i) and (n)	Review and assess the good housekeeping program annually Report progress in an annual report to IDEM.	Include: Status of measurable goals, program requirements, compliance schedules, and timetables. Number and location of stormwater outfalls and conveyance systems that have been repaired. Estimated amount of material collected from stormwater drainage system. Estimated amount of material collected from street sweeping. Number and location of de-icing salt and sand storage areas and methods used to minimize stormwater exposure.	April 2023 April 2024 April 2025 April 2026 April 2027	City of Mishawaka and Bethel University MS4 Staff

FIGURE



Aerial Photography provided by City of Mishawaka, 2021

 LAWSON-FISHER ASSOCIATES P.C. 525 W WASHINGTON AVENUE SOUTH BEND, INDIANA 46601 PH. (574) 234-3167	Storm Water Quality Management Plan	
	Figure 1	
	202231.00	March 2023

City of Mishawaka & Bethel University
MS4 Boundary Map