

Section 5: General SWMP, Enforcement Response Procedure, and Public Participation/Involvement Program

5.1 General SWMP Table

The City and Kalamazoo Valley use the General SWMP Table as a method of tracking the BMPs that make up the Stormwater Management Plan. The table lists each individual BMP, a description or method of implementation, which measures the BMP addresses, the frequency or schedule of the BMP, the method for evaluating effectiveness, and reports the progress of each BMP during each progress report. This table is included in **Section 5: Attachment A**. In addition to the SWMP table, a Supplemental Implementation Plan – April 2022 has been developed and provided in **Section 5: Attachment B**. This Plan defines a 1-year action list and a 2 to 3-year plan to address the new 2021 and 2022 NPDEW MS4 requirements. A phased-in approach to increase the City’s Level of Services is outlined based on resource limitations.

5.2 Enforcement Response Procedure (ERP)

City ordinances are designed by the City Attorney to provide the City with legal mechanisms to address the MS4 violations but also purposely designed to provide staff with a reasonable level of flexibility in timelines and methodology since each situation exhibits unique characteristics, amount of evidence, and level of known and potential severity.

5.2.1 City of Kalamazoo Stormwater Ordinance

Adopted by the City Commissioners of the City of Kalamazoo in 2004 by Ordinance No. 1776, Chapter 29, the Kalamazoo Code of Ordinance was designed specifically to regulate the contribution of pollutants; prohibit illicit discharges; establish/confirm legal authority to investigate, inspect, and eliminate illicit connections and discharges; and to require and enforce elimination of illicit connections and discharges. It is the primary Enforcement Response Procedure (ERP). **Section 5: Attachment C** contains a copy of the City of Kalamazoo Stormwater Ordinance. It can also be found online by visiting <https://ecode360.com/9697112>.

5.2.2 City of Kalamazoo Soil Erosion and Sediment Control Ordinance

The secondary ERP is the Chapter 30 of Ordinance No. 1776, Soil Erosion and Sedimentation Control, *and it* allows the City to control soil erosion and sedimentation with respect to earth change activities within the City, by requiring proper provision for water disposal and protection of soil surfaces during and after construction, in order to promote the safety, public health and general welfare of the City, as well as to limit the exposed area of any disturbed land for the shortest possible period of time. **Section 5: Attachment D** contains a copy of the City of Kalamazoo Soil Erosion and Sediment Control Ordinance, or it can be found online by visiting <https://ecode360.com/9697242>.

Illicit discharges will be tracked through an illicit discharge tracking method using the Lucity Asset Management Software (Lucity). The development of this process is contained in the SWMP Supplemental Implementation Plan, found in **Section 5: Attachment B**. Public Services staff utilize the IDEP tracking method in Lucity for evaluations and inspections for suspected illicit discharges. Enforcement action may be taken pursuant Chapter 29 and Chapter 30 of the City of Kalamazoo Code of

Ordinances if initiated by Public Services Department. A detailed City of Kalamazoo Illicit Discharge Elimination Plan is found in Section 7. Enforcement action will be tracked in the Enforcement Response Tracking Table and will be provided for the biannual report. A copy of the Stormwater IDEP Enforcement Tracking Table can be found in **Section 5: Attachment E**. The City will utilize this table as the tracking tool for violations and follow-up for Chapter 29 of the Code of Ordinances. The completed IDEP sheet will be provided with every Stormwater Program Progress Report.

5.3 Public Participation/Involvement Program

5.3.1 Policy

This policy is to establish procedures for the City of Kalamazoo Public Participation/Involvement Program (PPP).

5.3.2 Background

The EGLE NPDES MS4 Stormwater Discharge Permit Application requires a procedure for public participation/involvement program. This procedure includes a description of the opportunities for the public to provide comment on the Stormwater Management Plan (SWMP) and inviting public involvement and participation in the implementation and periodical review of the SWMP.

5.3.3 Procedure

a) Stormwater Management Plan Available for Public Inspection and Comment

The City SWMP will be made available to the public through the City of Kalamazoo websites, <https://protectyourwater.net/kalamazoo-stormwater-management/> and <https://www.kalamazoo.org/Community/Sustainability-Our-Environment> and under the associated search terms: stormwater, rain, stormwater runoff, runoff, stormwater management plan, NPDES, SWMP, and IDEP. The SWMP will be available for public comment through both websites that direct the public to <https://protectyourwater.net/contact/>. This information includes the contact information of the Water Programs Manager to compile and track comments from the public including: commenter's name, date, and comments. Comments will be reviewed regularly when received and taken into consideration during annual review of the SWMP. If deemed appropriate and/or necessary edits will be considered to the SWMP.

b) Public Involvement and Participation

Public involvement and participation consist of action items that people can do at their own homes and within their community. Publication and promotion of events and action items will typically be virtual activities (promotion of events and activities via a community's website, Stormwater group's website, social medial, various website links, etc.) for in-person events and activities to be performed by residents independently.

c) Public Involvement and Participation in the Implementation and Periodic Review of the SWMP

The mechanisms for the public to be involved in the implementation, participation, and review of the SWMP include: Keeping catch basins and inlets located in the streets in front of their homes clear of debris; reporting any observed illegal dumping of chemicals/debris down catch basins/inlets; washing cars on lawn areas; disconnecting downspouts that un to street and re-route them to vegetated areas; reviewing and implement appropriate BMPs found on the websites; and, directing comments regarding the SWMP using the website Contact form.

The following BMPs in **Table 5-1** will be utilized to allow for PPP in the implementation and periodic review of the SWMP.

Table 5-1

BMP	Description	Schedule	Method of Assessment
Public Notice	<p>The City will publicize the document is available for review and comment on the City’s website.</p> <p>The City, if producing and distributing a community newsletter, will also publicize that the SWMP document is available on the website. If no community newsletter exists during the duration of the permit, the notice of the community’s SWMP document being available for review and comment will be flagged/publicized on the community’s homepage with a link to the SWMP.</p>	<p>1st Year of new permit issuance</p> <p>Promote document twice per permit cycle</p>	<p>Copy of the website showing the document was available and the number of comments.</p> <p>Copy of the community newsletter (if applicable) showing the document was available on the website. If no newsletter was used, a screenshot of the homepage showing the documented was linked from the community’s homepage.</p>
Website	<p>The City’s web site will be utilized to explain the SWMP program and opportunities for public involvement and participation.</p>	<p>Ongoing</p>	<p>Number of comments.</p>
Community Website Updates / Promote TMDL activities	<p>The City will promote events put together by the Kalamazoo River Watershed Council, such as “Rain Barrel Sale”, Kanoe the Kazoo”, etc., or other appropriate agency’s events that are appropriate for this community.</p>	<p>Ongoing</p>	<p>Number of programs promoted on website.</p> <p>A link to the KSWG website or other agency’s website that is promoting various event activities is on the Community’s homepage and/or the event information is promoted directly on the community website’s homepage.</p>

Section 5: Attachment A

City of Kalamazoo General

Stormwater Management Plan (SWMP)

Stormwater Management Plan - Revised 3-17-2023

Column >	1	2	3	4	5	6	7	8	9	10	11
Row	BMP/Action	Description/Method of Implementation	Minimum Measures							Frequency/Schedule	Method of Evaluating Effectiveness
			PPP	PEP	IDEP	CSC	PCC	P2/GH	TMDL		
1	Enforcement Response Procedures (ERPs)	See Chapter 29 of City of Kalamazoo Code of Ordinances - Stormwater and Chapter 30 of Code - Soil Erosion and Sedimentation Control; Appendix A of Code, Section 8.3H (Site Plan Review); Section 10 (Violations, Penalties and Enforcement).			X	X	X			As needed.	Enforcement as necessary.
2	Public Participation/ Involvement Program	See COK MS4 NPDES Permit Application Section 5	X							See COK MS4 NPDES Permit Application Section 5	See COK MS4 NPDES Permit Application Section 5
3	Public Education Plan	See COK MS4 NPDES Permit Application Section 6: Attachment A		X						See COK MS4 NPDES Permit Application Section 6: Attachment A	See COK MS4 NPDES Permit Application Section 6: Attachment A
4	Illicit Discharge Elimination Plan KVCC BMP5	IDEP outfall screening; Section 7: Attachment A, Figures 3 and 4, Tables 1 and 4.			X					See COK MS4 NPDES Permit Application Section 7: Attachment: Attachment A - IDEP for 4-year schedule for dry weather outfall screening and retention/detention basins.	See COK MS4 NPDES Permit Application Section 7: Attachment A - IDEP for dry weather screening program, and Section 9 of the 2022 Permit Renewal Application
5	Construction Stormwater Runoff Control Program	Continue Soil Erosion & Sedimentation Control Program. Per Ordinance 1790, permit and enforce soil erosion and sedimentation controls associated with construction sites. For Part 91, the City's Code Enforcement Division is a Municipal Enforcing Agency that issues permits and conducts enforcement. The Engineering Division is an Authorized Public Agency, which does not issue permits but has procedures in place that need to be followed internally.				X				Continue MEA status for enforcing Act 91.	See COK MS4 NPDES Permit Application Section 8: Construction Stormwater Runoff Control, permit application Questions 28-31 (Revision January, 2017), and Map of Designated Areas of Snow Plowing and Street Sweeping. Continued certification for APA status; number of Permits issued; enforcement of Ordinances and policies; reduction in TSS.
6	Documentation of Post-Construction Stormwater Control for New and Redevelopment Projects.	Current: Performance Standards for Groundwater Protection within Wellhead Protection Capture Zones and Stormwater Quality Management (Ordinance Nos. 2056, 2057 & 1826), 2022.							X	Continuous. Updated October 17, 2022	See COK MS4 NPDES Permit Application Section 9: Post-Construction Runoff Program (permit Questions 32-59). Effective use and enforcement of Ordinance; Ordinances and Performance Standards, 2022.

Stormwater Management Plan - Revised 3-17-2023

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Row	BMP/Action	Description/Method of Implementation	Minimum Measures							Frequency/Schedule	Method of Evaluating Effectiveness
			PPP	PEP	IDEP	CSC	PCC	P2/GH	TMDL		
7	Continue Site Plan Review process using the Wellhead Protection Zoning Overlay Ordinance and Performance Standards Ordinance.	Per Ordinances 2056, 2057 and 1826, require stormwater pre-treatment prior to discharge into the City's MS4 or directly into the surface waters. Appendix A of Code, Section 8.3. Pending: Updates for Performance Standards.				X	X			Continuous. Updated October 17, 2022	Number of site plans reviewed; number of required pre-treatment BMPs; number of natural BMPs; reduction in TSS; Ordinances and Performance Standards, 2022.
8	Employee and Contractor Training.	Continue use of the Excal DVD "Storm Watch Municipal Storm Water Pollution Prevention" and/or the EGLE DVD "Storm Water Employee Training" for employee training. In addition, the Technician 3 staff will watch the more specific IDEP focused DVD "Illicit Discharge Detection & Elimination A Grate Concern."						X		All staff within 5 year Permit cycle. New hires within 1 year of hire. Contractors to begin viewing Storm Watch DVD in 2016 if they do not have staff with Stormwater Certification.	Number of employees trained; integration of stormwater control requirements into bid specifications. Contractor training/certification documentation.
9	List structural Stormwater Controls (pre-treatment units).	List by Table all municipally owned properties with stormwater structural controls (pre-treatment units).						X	X	Continuous maintenance of list of municipal properties and structural stormwater controls with locations.	See Procedure for Updating and Revising the Existence, Location, Structural Stormwater Controls and Potential to Discharge Pollutants to the Surface Waters of the State (January 2017). Completion of list with locational information; See COK MS4 NPDES Permit Application Section 9.
10	Inspect, perform maintenance, and evaluate all Stormwater Controls (pre-treatment units). <i>KVCC BMP6</i>	Annual year plan to inspect, perform maintenance and evaluate for effectiveness each City-owned stormwater control (pre-treatment unit) identified within the SWMP.						X	X	Annual Inspection & Maintenance	See COK MS4 NPDES Permit Application Section 9
11	Continue Street Sweeping Program. <i>KVCC BMP2</i>	Use up to three Elgin Pelican series street sweepers to clean streets. A contractor removes the dumpsters that the sweepers deposit the debris in and delivers it to a Class II landfill. The same contractor tracks the volume of the debris accumulated.						X	X	Approximately May to mid-October, monthly sweeping for the downtown area, and sweeping every 2-3 weeks for the remainder of the City.	See COK MS4 NPDES Permit Application Section 9
12	Continue Leaf Collection Program. <i>KVCC BMP3</i>	Residents are asked to rake their leaves in the late fall into the edge of the street in accordance with a published schedule. City crews then use a combination of tractors, front-end loaders and compactor trucks to collect the leaves. Cycle is repeated (weather permitting). Collected leaves are hauled and deposited at a city composting facility.						X	X	Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."	Volume of leaves collected and disposed; estimated pounds of phosphorus prohibited from entering surface waters and clogging storm sewers; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling"; reduction in phosphorus loadings.

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Column >	1	2	3	4	5	6	7	8	9	10	11	
Row	BMP/Action	Description/Method of Implementation	Minimum Measures							Frequency/Schedule	Method of Evaluating Effectiveness	
			PPP	PEP	IDEP	CSC	PCC	P2/GH	TMDL			
13	Continue Brush Pick-up Program. <i>KVCC BMP3</i>	A private contractor currently performs brush collection once a month from May through October on the same day as bulk trash (see below). Residents are asked to place bundled brush in the curb lawn for collection in accordance with the published monthly bulk trash collection schedule.							X	X	Per published monthly schedule from May through October on the same day as bulk trash. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."	Volume of brush collected; estimated pounds of phosphorus prohibited from entering surface waters, and clogging storm sewer; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling"; reduction in phosphorus loadings.
14	Continue Bulk Trash Collection Program.	A private contractor performs bulk trash collection for the City. Curbside collection is provided to residential properties with four units or less. All other properties must contract individually with private companies for trash removal. Residents place bulk trash near the curb for collection in accordance with a published schedule. A limit of 7.7 cubic yards per property per month is currently in place.							X		Monthly, per published schedule. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."	Volume of bulk trash collected; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."
15	Catch Basin/Inlet Cleaning. <i>KVCC BMP7</i>	A dedicated vactor truck and crew for the city-wide cleanout plan of all catch basins/inlets, and manholes was initiated in 2018. Also, cleanings are performed on a requested and urgently needed basis (e.g., localized flooding), and associated with IDEP investigations as needed. Waste collected is by vactor trucks or by hand and are disposed of at the Wastewater Treatment Plant, unless it is determined that it be necessary to dispose of it at a Type II Landfill or by a certified hazardous waste hauler determined location.							X	X	In 2018, the COK obtained one dedicated vactor truck and crew for our city-wide cleanout plan of all catch basins/inlets, and manholes. One cycle of the cleanout plan is estimated between 10-20 years.	See COK MS4 NPDES Permit Application Section 9: All catch basins will need to be cleaned out when the sediment level in the sup reaches between 1/3 and 1/2 full based on sediment depth using rods.
16	Snow and Ice Removal Program. <i>KVCC BMP1</i>	The principal ice control material used is rock salt, (NaCL). Liquid calcium chloride with Boost is added to increases salt adhesion to the road. Only under extremely icy conditions, three parts of sand are mixed with one part of salt to aid traction. This is a temporary measure until pavement can be exposed. Major streets are spot salted, as conditions permit. Local streets are salted only at intersections, stops, hills, and yields. In addition, the Kalamazoo Mall uses a snowmelt system instead of salting.							X		As needed.	See COK MS4 NPDES Permit Application Section 9: Map of Maintenance Sections for Street Sweeping and Snow Plowing. Also see Section 9: MDOT ACT51 COK Road System Classifications Map. The amount of rock salt and sand mix used under appropriate conditions. Strategy to reduce the use of sand.
17	Continue Use of Enclosed Salt Storage Facility.	Rock salt is stored in an enclosed above-ground salt storage facility with a capacity of 7,000 tons, above the 100-year flood plain elevation.							X		Continuous: Use enclosed salt storage facility located at the Harrison Street Facility.	Continued use of enclosed above-ground facility; compliance with SWPPP for wastewater treatment plant.
18	Continue implementation of SWPPP for the 415 E. Stockbridge Avenue Facility.	The fleet maintenance operation at this location meets the criteria for a SWPPP. The 2017 SWPPP was updated in 2022.							X		Continuous: Fleet Director or representative to maintain stormwater certified operator status, implement inspections and continue BMPs.	See COK MS4 NPDES Permit Application Section 9 for inspection/ maintenance programs. Acquired Stormwater Certified Operator License(s); number of inspections; number of BMPs implemented; overall SWPPP compliance.
19	Continue Recyclable Material Collection Program.	There are three components to the City's residential recycling program: weekly curbside residential collection for all residential properties with four units or less; multi-unit collection for those property owners or managers willing to participate; and a recycling drop-off facility is available to all citizens.							X		Annual evaluation to continue program. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."	Volume of materials collected and number of participants; continued Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."

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Column >	1	2	3	4	5	6	7	8	9	10	11					
Row	BMP/Action	Description/Method of Implementation	Minimum Measures						Frequency/Schedule	Method of Evaluating Effectiveness						
			PPP	PEP	IDEP	CSC	PCC	P2/GH			TMDL					
20	Continue Household Hazardous Waste Collection.	City residents are able to dispose of their hazardous waste at the Kalamazoo County Household Hazardous Waste Center, 1301 Lamont Avenue, free of charge. Each year the City enters into a contract with Kalamazoo County, which shares proportionally the cost with all participants to operate the program.								X		Re-evaluate and propose renewal of contract on an annual basis. Bi-Annual publication of "A View From the Curb The City's Guide to Waste & Recycling."	Continued contracts with Kalamazoo County; volume and type of materials collected and number of participants; continued Bi-Annual publication and COK website ads of "A View From the Curb The City's Guide to Waste & Recycling."			
21	Environmental Safer Products.	The City Commission Policy for "Procurement of Recycled & Environmentally Friendly Products" is provided as Attachment 1.									X		Continue current policy	Continuation and/or enhancement of existing policy.		
22	Waterway Vegetative Buffers.	Continue use of the City's "Lawn Care Guidelines for Parks, Greenspaces, and Along Waterways" and discussion with staff and seasonal employees during annual "training day."										X		Continue current policy;	Continuation and/or enhancement of existing policy; number of existing vegetative buffers maintained and new ones installed along waterways. Incorporation of specifications into contracts.	
23	Lawn Care Guidelines. <i>KVCC BMP3</i>	Continue use of the City's "Lawn Care Guidelines for Parks, Greenspaces, and Along Waterways" and discussion with staff and seasonal employees during annual "training day."											X		Continue current policy	Continuation and/or enhancement of existing policy. Effective communication with lawn maintenance employees and temporary seasonal hires regarding policy. Incorporation of specifications into contracts.
24	Reduction of Pesticides, Herbicides, and Fertilizers. <i>KVCC BMP4</i>	The City has a "Pesticide/Herbicide Advisory Committee" to monitor the use of pesticides and herbicides in the City and recommend policies and guidelines. Also, continue use of the City's "Lawn Care Guidelines for Parks, Greenspaces, and Along Waterways" and discussion with staff and seasonal employees during annual "training day."											X	X	Continue current policy: Review and consider updates/revisions.	See COK MS4 NPDES Permit Application Section 9 for pesticide information and TMDL Implementation Plan. Continuation and/or enhancement of existing policies.

PPP - Public Pa PPP - Public Participation/Involvement Program
 PEP - Public Ed PEP - Public Education Program
 CSC - Construc CSC - Construction Stormwater Runoff Control Program
 IDEP - Illicit Dis IDEP - Illicit Discharge Elimination Program
 PCC - Post-Con PCC - Post-Construction Control Stormwater Runoff Program
 TMDL - Total N TMDL - Total Maximum Daily Load Implementation Plan

**MUNICIPAL OPERATIONS/GOOD HOUSE-KEEPING
 BMPS, POLLUTANTS, AND STORMWATER PROGRAM ASSESSMENT
 Presented as a Supplement to Table 2 (SWMP)**

<u>BMP</u>	<u>Pollutant of Concern</u>	<u>Other Issues/Concerns</u>	<u>Annual Assessment</u>
Winter Road Maintenance - Snow and Ice Removal	Salts, Sediment	Street Safety	Best materials and least amounts being used to meet program objectives
Salt Storage	Sodium, Chlorides	Storage Facility Maintenance	Regulatory Compliance
Street Sweeping and Cleaning	Salt, Sediment, Hydrocarbons	Traffic Control	Adequate Street Coverage, Methods, and Disposal Practices
Catch Basin/Inlet and Storm Main Cleaning	Salt, Sediment, Hydrocarbons	Traffic Control	Adequate Progress, Methods, and Disposal Practices
Soil Erosion/Sedimentation	Sediment, Phosphorus	Street Safety	Ordinance/Permit Compliance
Structural Controls	Sediment/Variou s	Stormwater Storage and Treatment	Inspections/Response to Needs
Leaf Collection Program	Phosphorus/Organic Matter	Street Safety, Stormwater Impediment	Volume Collected and Adequacy of Methods and Schedule
Brush Pick-up Program	Phosphorus/Organic Matter	Street Safety, Stormwater Impediment	Volume Collected and Adequacy of Methods and Schedule
Bulk Trash Pick-up Program	Debris/Mixed	Street Safety, Stormwater Impediment	Volume Collected and Adequacy of Methods and Schedule
Recyclable Material Collection Program	Paper, Glass, Plastics		Volume Collected and Adequacy of Methods and Schedule
Household Hazardous Waste Collection Program	Household Chemicals	Chemical Exposures with Illicit Dumping	Currency of Contract, Volume Collected
Pesticides, Herbicides, and Fertilizer Applications	Pesticides, Herbicides, Phosphorus, Nitrogen	Chemical Exposures with Illicit Dumping	Policies to Minimize Use/Effectiveness
Fleet Services	Oils, Greases, Hydraulic Fluids, Solvents, Gasoline	UST Management/Safety, Staff Exposures and Safety	See SWWP; Safety Management; Waste Disposal Practices