

National Pollution Discharge Elimination System

Permit Application for Discharge of
Storm Water to Surface Water of the State from a
Municipal Separate Storm Sewer System



**VILLAGE OF VICKSBURG
KALAMAZOO COUNTY, MICHIGAN**

April 2023

Prein&Newhof

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Chapter 1 – Storm Water Discharge Permit Application

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Permit Application

The Village of Vicksburg submitted a full National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Application permit application in 2018.

Vicksburg completed the online application for the Abbreviated National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Application for this current permit cycle. The application was submitted to EGLE via the MiEnviro Portal.

Chapter 2 – Regulated Area Map

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

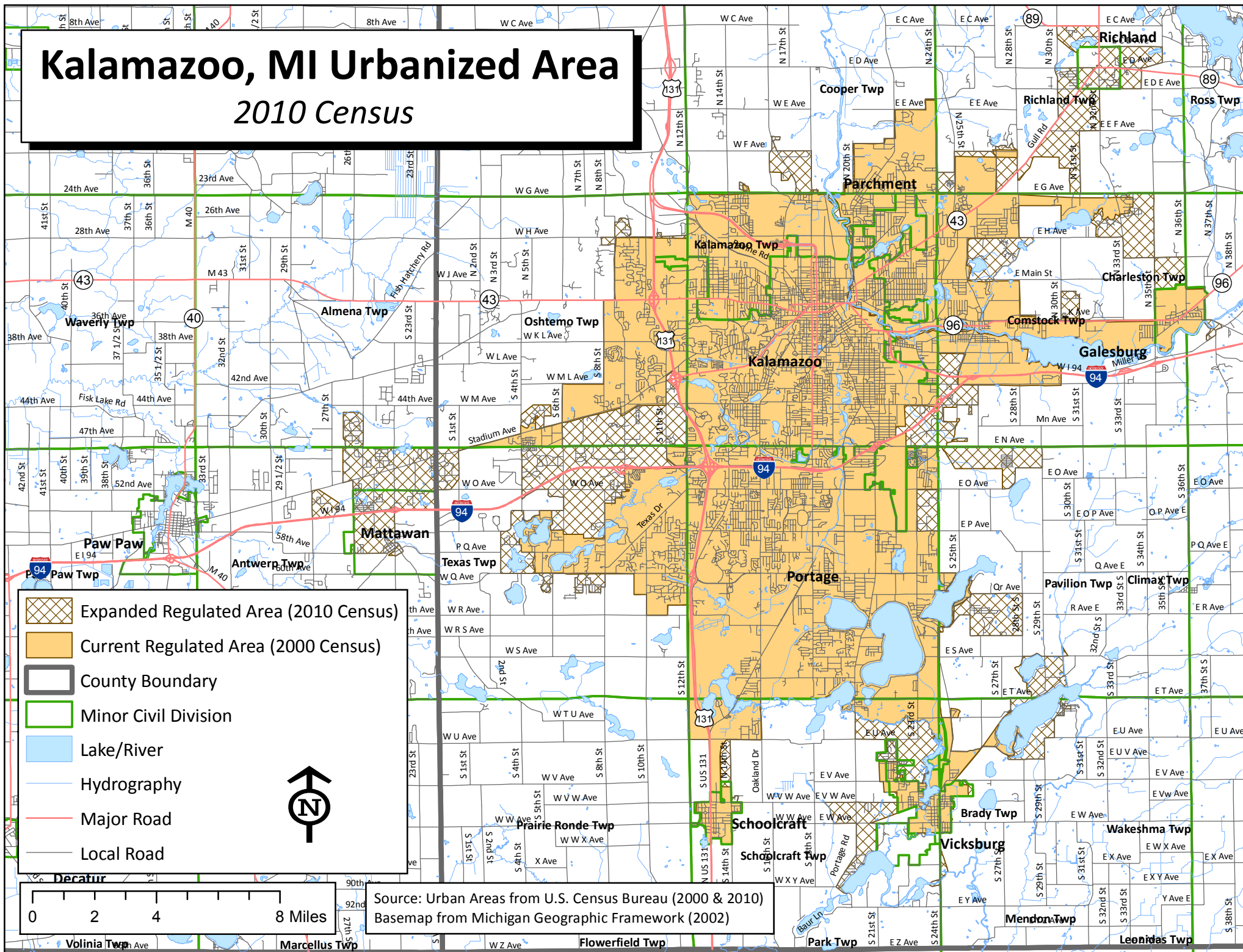
Regulated Area

The Village of Vicksburg's entire municipal boundary is within the urbanized area as defined by the 2010 Census with the exception of Angels Crossing golf course and associated surround developments adjacent to this course (Bridgeview Condominiums and Angels Crossing subdivision).

A copy of the 2010 urbanized area is included in this chapter and a map of the Village's storm water system is included in Chapter 3.

Kalamazoo, MI Urbanized Area

2010 Census



Chapter 3 – Outfalls and Points of Discharge

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

HISTORY

Initial identification of outfalls within the jurisdiction of the Village has been conducted. Identification had been done through review of maps, plots, printouts, files, NPDES permits, municipal records, other agencies and field inspections. This review indicates that known public storm drains, county drains and drainage swales are primarily three types of systems. These include systems built to service Village and county roads and bridges or constructed as part of a plat development.

Vicksburg made an effort in 2003 to locate all public utilities (storm and sanitary sewer) in their system by hiring a contractor to jet or clean the lines and manholes. At that time the Village did discover outfalls that they were unaware of and developed the map that was part of their current permit. Since then they made a hand drawn map of the storm system, which was drawn into GIS in 2008 and included with the permit application (which was repealed). The Village was confident that all outfalls have been discovered within the Village Limits at that time; however, continued investigation and mapping of all storm sewers and structures within the Village is ongoing by Village staff.

Angels Crossing golf course was purchased by the Village from the bank during the winter of 2009. This golf course discharges towards wetlands and has been added to the Village Storm Sewer Map, which was included in this Chapter.

The Vicksburg Public Schools have been added to Vicksburg permit as a nested jurisdiction in 2010 and updates to the map have been completed to include the school's property and outfalls. Vicksburg Community Schools have their points of discharge labeled VCS1 – VCS10. Storm water runoff from Vicksburg High School, Vicksburg Middle School, Administration Building and the Bus Garage is collected and run through Storm Treatment Units, STU, (oil/water separators or AquaSwirl). After passing thru a STU, storm water is discharged into the County Drain. Stormwater from Sunset Lake Elementary discharges directly in the Village of Vicksburg storm sewer down N. Boulevard; therefore, is not added as a new discharge point and also contains a STU prior to connecting to the Village's system. Tobey and Indian Lake Elementary are not located in the Village; storm water from these two sites is infiltrated on site so will not add to the Village of Vicksburg discharges.

In 2014, the Village of Vicksburg received a SAW grant from EGLE. The Village used this grant in 2015 and 2016 to video document the entire storm system. Pipeline Assessment Certification Program (PACP) ratings were utilized on all the storm pipes and storm structures evaluated. Mapping was updated based on the data collected.

EXISTING STORM SYSTEM

The overall stormwater management system within the Municipality's boundary has many intermingled ownerships and agencies involved to provide stormwater collection. These include the Vicksburg Community Schools and the Kalamazoo County Drain Commission. The current watershed of these agencies is approximately 1,096 acres of contributing area and extends into Brady Township and Schoolcraft Township.

The Village of Vicksburg's stormwater collection system currently has approximately 658 structures which are comprised of catch basins, leaching basins, manholes, and storm inlets. There are also approximately 71,909 feet of storm piping and 12 infiltration basins.

Per MS4 permit definitions, an outfall means a discharge from a MS4 directly to surface waters of the state and a Point of Discharge means a discharge from a MS4 to a MS4 owned or operated by another public body.

- The Village has twenty-three (23) outfalls which discharge directly to the creek, lakes or adjoining wetlands with no stormwater treatment.
- The Village has nine (9) outfalls that connect to the "Vicksburg Drain" (which is a Water of the State) under the jurisdiction of the Kalamazoo County Drain Commission, which also do not contain any storm water treatment system.
- The Village has twenty (20) non-MS4 outfalls discharge to 12 infiltration areas under the jurisdiction of the Village and none of these outfalls contain any storm water treatment system.

Currently the Village's storm system has four (4) STUs installed in 2021/2022 on three (3) of their direct discharges. Ultimately it is anticipated the Village's storm system will utilize the following treatment methods for all outfalls:

- In-line separators
- Detention/retention basins
- Outfall treatment - Sediment Basins or Wetlands

The other agencies within the municipal limits have approximately the following infrastructure:

- Vicksburg Community Schools (Nested Jurisdiction) – 59 Structures, 11,636 feet of pipe, 9 points of discharge to KCDC, two (2) STU, and two (2) oil/grit separators.
- KCDC (Vicksburg Drain) – 53 Structures, 6,671 feet of pipe, 4,500 feet of open ditch, 3 Storm Treatment Units (AquaSwirl), several culverts, one (1) 8-foot diameter inline sedimentation sump, and 1 outfall.

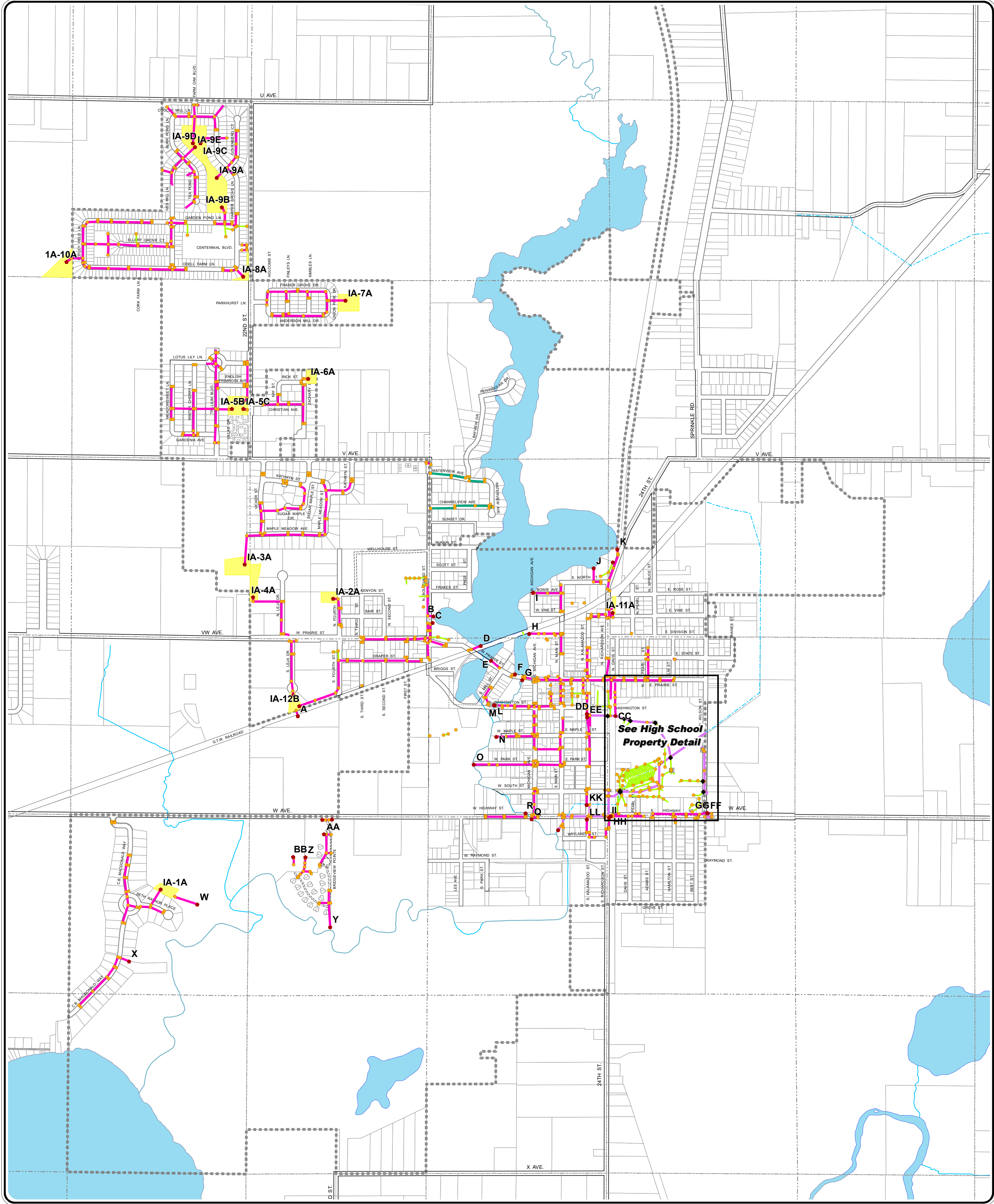
Village of Vicksburg
Storm Water Discharge Permit Application
Table 1
Outfall and Point of Discharge Information

Designation (Outfall/POD)	Identification Number	Connecting Point MS4 Jurisdiction	Receiving Water	Pipe Size	Notes
Outfall	A	NA	Wetlands	24"	S. Leja Detention basin w/overflow pipe under RR
Outfall	B	NA	Sunset Lake	12"	
Outfall	C	NA	Sunset Lake	24"	
Outfall	D	NA	Sunset Lake	12"	
Outfall	E	NA	Sunset Lake	12"	
Outfall	F	NA	Sunset Lake	8"	
Outfall	G	NA	Sunset Lake	48"	With Dual AquaSwirl STU
Outfall	H	NA	Sunset Lake	10"	
Outfall	I	NA	Sunset Lake	12"	Bowie
Outfall	J	NA	Sunset Lake	12"	N. Street
Outfall	K	NA	Sunset Lake	15"	
Outfall	L	NA	Portage Creek	18"	Washington Street - w/ AquaSwirl STU
Outfall	M	NA	Portage Creek	18"	Washington Street - w/ AquaSwirl STU
Outfall	N	NA	Portage Creek	12"	Maple Street
Outfall	O	NA	Portage Creek	10"	Park Street
Outfall	Q	NA	Portage Creek	15"	Highway Street
Outfall	R	NA	Portage Creek	15"	Highway Street
Outfall	W	NA	Wetlands/Portage Creek	15"	Seth Raynor overflow
Outfall	X	NA	Wetlands/Portage Creek	24"	CB MacDonald Way
Outfall	Y	NA	Wetlands/Portage Creek	15"	
Outfall	Z	NA	Wetlands/Portage Creek	24"	
Outfall	AA	NA	Wetlands/Portage Creek	12"	
Outfall	BB	NA	Wetlands/Portage Creek	15"	
Outfall	CC	KCDC	Vicksburg Drain	12"	
Outfall	DD	KCDC	Vicksburg Drain	12"	
Outfall	EE	KCDC	Vicksburg Drain	12"	
Outfall	FF	KCDC	Vicksburg Drain	12"	
Outfall	GG	KCDC	Vicksburg Drain	15"	
Outfall	HH	KCDC	Vicksburg Drain	12"	
Outfall	II	KCDC	Vicksburg Drain	12"	
Outfall	##	KCDC	Vicksburg Drain	15"	This was determined to be KCDC pipe with SAW
Outfall	KK	KCDC	Vicksburg Drain	12"	
Outfall	LL	KCDC	Vicksburg Drain	12"	

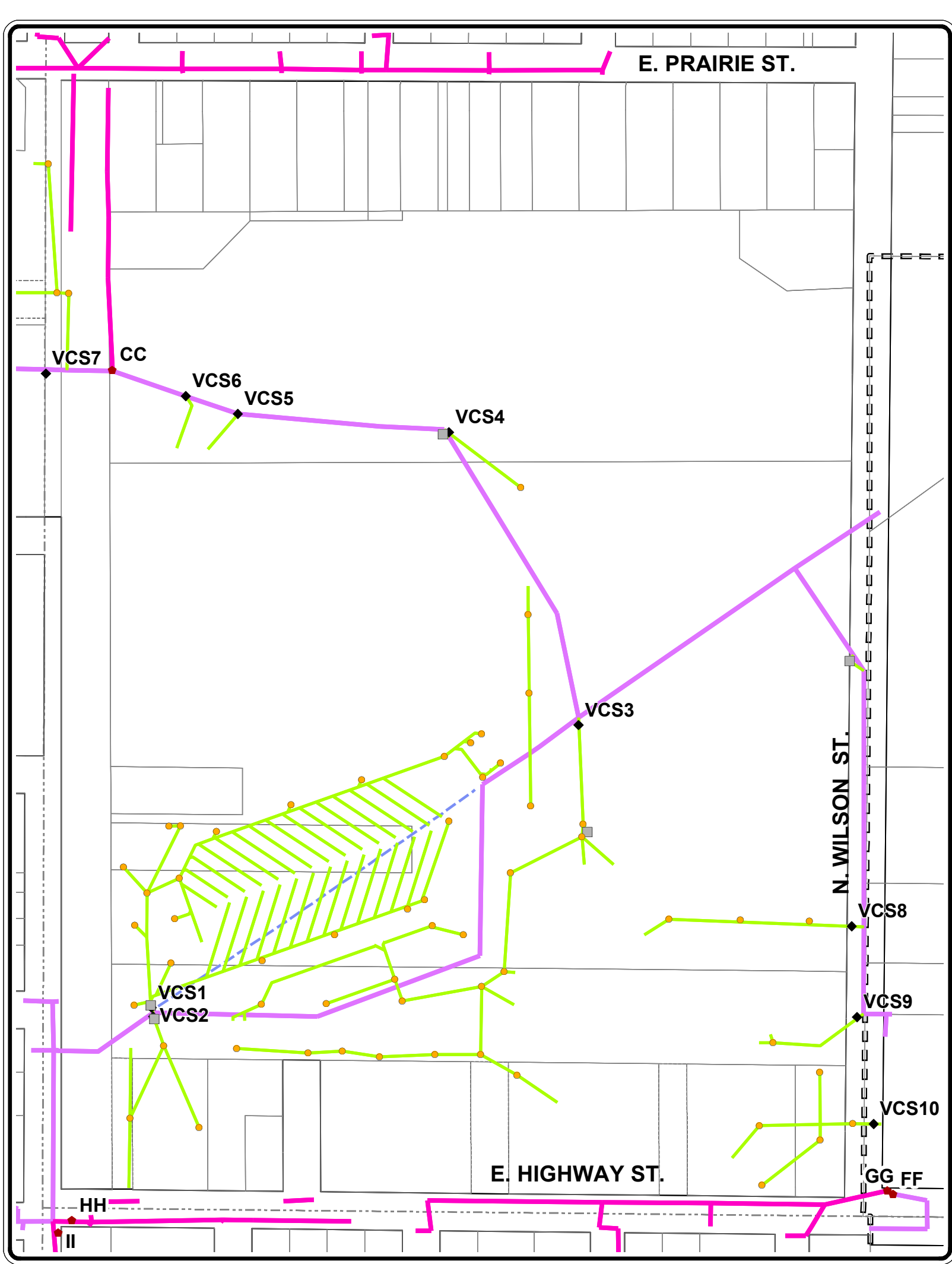
Village of Vicksburg
Storm Water Discharge Permit Application
Table 1
Outfall and Point of Discharge Information

Designation (Outfall/POD)	Identification Number	Connecting Point MS4 Jurisdiction	Receiving Water	Pipe Size	Notes
<u>Nested Jurisdictions</u>					
Point of Discharge	VCS1	KCDC	Vicksburg Drain	unknown	contains oil/grit separator (STU 4)
Point of Discharge	VCS2	KCDC	Vicksburg Drain	unknown	contains oil/grit separator (STU 5)
Point of Discharge	VCS3	KCDC	Vicksburg Drain	unknown	contains AquaSwirl (STU 2)
Point of Discharge	VCS4	KCDC	Vicksburg Drain	unknown	
Point of Discharge	VCS5	KCDC	Vicksburg Drain	unknown	
Point of Discharge	VCS6	KCDC	Vicksburg Drain	unknown	
Point of Discharge	VCS7	KCDC	Vicksburg Drain	12"	Abandoned with Drain project in 2014
Point of Discharge	VCS8	KCDC	Vicksburg Drain	12"	
Point of Discharge	VCS9	KCDC	Vicksburg Drain	15"	
Point of Discharge	VCS10	KCDC	Vicksburg Drain	unknown	
<u>"outfall" - Non-MS4</u>					
Outfall	IA-1A	NA	Infiltration Basin 1	30"	Seth Raynor Place
Outfall	IA-2A	NA	Infiltration Basin 2	12"	Fourth Street / N. Leja Industrial Park
Outfall	IA-3A	NA	Infiltration Basin 3	24"	Maple Meadows
Outfall	IA-4A	NA	Infiltration Basin 4	21"	N. Leja
Outfall	IA-5A	NA	Infiltration Basin 5	24"	Trillium
Outfall	IA-5B	NA	Infiltration Basin 5	42"	Trillium
Outfall	IA-5C	NA	Infiltration Basin 5	24"	Trillium
Outfall	IA-6A	NA	Infiltration Basin 6	24"	Madison Heights
Outfall	IA-7A	NA	Infiltration Basin 7	30"	The Prairies at Centennial Condominiums
Outfall	IA-8A	NA	Infiltration Basin 8	15"	Centennial
Outfall	IA-9A	NA	Infiltration Basin 9	24"	Centennial
Outfall	IA-9B	NA	Infiltration Basin 9	24"	Centennial
Outfall	IA-9C	NA	Infiltration Basin 9	24"	Centennial
Outfall	IA-9D	NA	Infiltration Basin 9	24"	Centennial
Outfall	IA-9E	NA	Infiltration Basin 9	24"	Centennial
Outfall	IA-10A	NA	Infiltration Basin 10	36"	Centennial
Outfall	IA-11A	NA	Infiltration Basin 11	12"	Richardson
Outfall	IA-11B	NA	Infiltration Basin 11	15"	Richardson
Outfall	IA-12A	NA	Infiltration Basin 12	15"	S. Leja Drive
Outfall	IA-12B	NA	Infiltration Basin 12	15"	Draper Street / Fourth Street

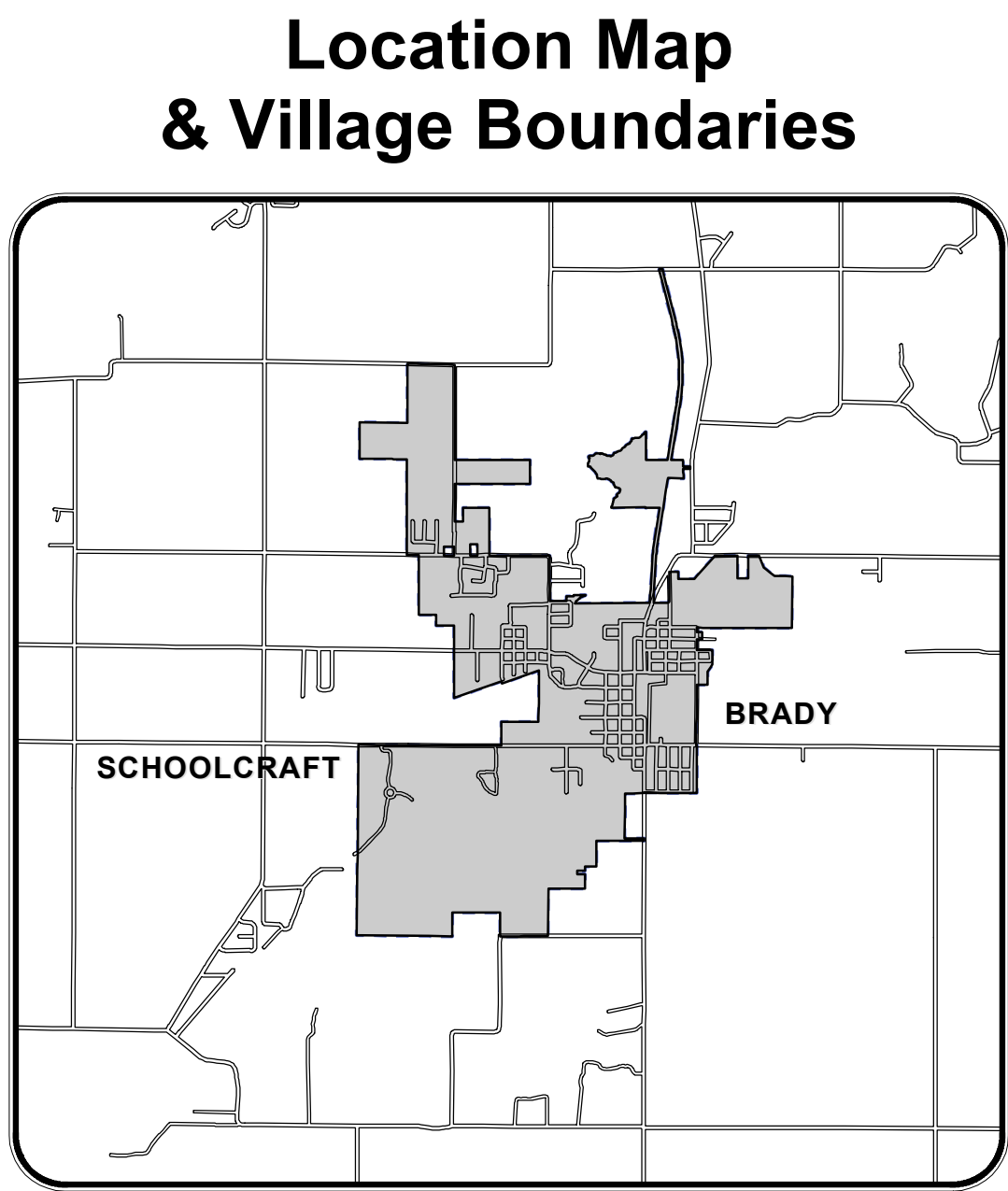
Outfall means a discharge point from an MS4 directly to surface waters of the state
Point of Discharge means a discharge from an MS4 to an MS4 owned or operated by another public body
"Outfall" Non MS4 means a discharge point to a Village owned or operated Infiltration Area
The "Vicksburg Drain" is classified as a Water of the State
Outfall JJ was eliminated from the list as the pipe ownership was determine with the SAW study to be KCDC jurisdiction and not the Village's



Overall Village



Vicksburg Community Schools
High School Property



Village of Vicksburg Kalamazoo County, Michigan

Storm Sewers, Outfalls & Points of Discharge

2200189
April 2023



LEGEND

- ◆ Point of Discharge
- Outfalls
- ▲ Storm Pump Station
- Storm Treatment Unit or Oil Grit Separator
- Infiltration Area
- Village of Vicksburg
- KCDC
- RCKC
- MDOT
- Private
- Abandoned

DISCLAIMER: This map was compiled from a variety of public and private information sources. Although it is a relatively faithful representation, its accuracy cannot be guaranteed. Therefore, it should be used for reference purposes only. Any conclusions or information derived from this map will be at the user's sole risk. Please note that plat drains are not shown.

Chapter 4 – Nested Jurisdictions

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

VICKSBURG COMMUNITY SCHOOLS

The Village of Vicksburg's storm system includes the Vicksburg Community Schools as they were nested under the Village's permit in September 2010. A copy of their agreement is included with this chapter.

VCS

Vicksburg Community Schools

Traditions In Excellence

September 7, 2010

Ms. Chris Bauer
Michigan Dept. of Natural Resources & Envr.
Kalamazoo District Office
7953 Adobe Rd.
Kalamazoo, MI 49009

RE: Vicksburg Community Schools Storm Water Phase II

Dear Ms. Bauer:

The Vicksburg Community Schools (VCS) would like to request termination of the Administrative Consent Order requesting that VCS obtain coverage under the Municipal Storm Water Program. VCS has prepared an agreement with the Village of Vicksburg (VOV) to be nested under their watershed based permit with Certificate of Coverage No. MIG610330. An unsigned copy of this agreement is attached; the agreement will be signed by both the VCS and VOV after the next VOV Council Meeting on September 20, 2010.

VOV will add VCS storm water discharges to their system, include a SWPPP for the VCS bus garage as necessary, and rely on VCS's educational expertise to assist in expanding their efforts. Storm water runoff from Vicksburg High School, Vicksburg Middle School, Administration Building and the Bus Garage is collected and run through oil/water separators (Aquaswirls). After passing through the Aquaswirls, storm water is discharged into the County Drain, which will be an added discharge to the VOV system. Storm water from Sunset Lake Elementary discharges directly into the VOV storm sewer down N. Boulevard; therefore, will not be an added discharge point. Tobey and Indian Lake Elementary are not located in the Village; storm water from these two sites is infiltrated on site so will not add to the VOV discharges. VCS will develop a SWPPP for their bus garage site and provide it to the VOV to include in their SWPPI. All necessary monitoring for the SWPPP will likely be completed by VCS staff. VCS will take a lead role in educational efforts and have education information available to staff, students, and parents. VCS staff will be included in all training efforts made by the VOV.

Once the agreement has been signed by both the VCS and VOV a copy will be mailed to the MDNRE. If any changes are requested by the VOV Board, they will be highlighted or indicated in a cover letter. Please contact us with any further questions.

Sincerely,



Stephen M. Goss
Assistant Superintendent

Enclosure

cc: Matt Crawford, Village of Vicksburg
Helen Davis, Prein&Newhof



301 South Kalamazoo PO Box 158 Vicksburg, Michigan 49097-0158 269 321-1000 fax: 269 321-1055

THIS AGREEMENT is made and entered into as of the 1st day of September, 2010, by the Village of Vicksburg (VOV), and Vicksburg Community Schools (VCS).

IT IS AGREED THAT:

The VOV and VCS are subject to the requirements of the Phase II Storm Water Regulations (the “Phase II Regulations”), 33 USC 1251, et seq., published by the United States Environmental Protection Agency (“EPA”) in the Federal Register on December 8, 1999; and

The Phase I Regulations of the existing National Pollutant Discharge Elimination System (NPDES) storm water program were published in the Federal Register on November 16, 1990 and the Phase II Regulation expands the existing program to address storm water discharges from small public separate storm drainage systems and construction sites that disturb one to five acres. The VOV is subject to Phase II because it is specifically identified in the list of “Incorporated Places and Counties Proposed To Be Automatically Designated Under the Storm Water Phase II Proposed Rule.” The VCS is regulated as it is a public facility with separate storm drainage that lies within an urbanized area and the facility’s separate storm drainage meets the concept of a “system” as described in the Federal regulation; and

The VOV has obtained coverage under for a Michigan Department of Environmental Quality National Pollutant Discharge Elimination System Wastewater Discharge General Permit for Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4s) Subject to Watershed Plan Requirements (MIG610000). Under the VOVs permit as allowed in Part I, Section A.2. of the General Permit the VOV is also applying to cover the VCS facilities which lies within the jurisdictional limits of VOV and others VCS properties within the designated watershed of the permit.

The Phase II Regulations and the General Permit impose certain requirements on the VOV and VCS that must be satisfied; and

The VOV Council has approved the VOV to provide coverage for VCS under the General Permit to enable the VOV and the VCS to comply with the requirements of the Phase II Regulations, the General Permit and to engage in other storm water management activities related thereto; and

The VOV and the VCS agreed to cooperate and actively participate in the activities necessary to enable the VOV and the VCS to comply with the Phase II Regulations and the General Permit; and

The VOV and the VCS are authorized to enter into an Agreement for a term up to but not beyond the expiration date of the VOVs Certificate of Coverage (COC) issued under the General Permit; and

In order to provide permit coverage, it is necessary that the VOV and the VCS enter into this Agreement.

INTER-AGENCY AGREEMENT FOR COVERAGE UNDER THE PHASE II NPDES PERMIT

THEREFORE, in consideration of the premises and the covenants of each other, the parties hereto agree as follows:

General Permit Compliance

VOV

The VOV agrees to:

1. Prepare and submit the permit application and required attachments.
2. Be responsible for the general administration of the permit related compliance program including maintenance of records, permit compliance tracking, and submittal of required plans, reports, and related correspondence.
3. Provide access to all correspondence and records related to the permit to the VCS.
4. Advise the VCS of any permit compliance issues or actions.
5. Hold meetings with the VCS at least quarterly to provide updates on compliance and storm water management related issues.
6. Be responsible to the primary implementation of minimum measures, Storm Water Pollution Prevention Initiative (SWPPI), Watershed Management Plan (WMP), etc., within the VOV and VCS.
7. Attend and actively participate in watershed planning efforts.
8. Represent the VCS in watershed planning efforts.
9. Engage such consultants, assistants, attorneys, employees, and resources as may be necessary to provide the services necessary to maintain compliance with the permit.

VCS

The VCS agrees to:

1. Provide needed information to the VOV, including drawings, plans, reviews, reports, and notices of problems/spills/violations necessary to apply for and maintain compliance with the permit.
2. Provide a written description of the BMPs used to achieve the assigned action items and goals of the SWPPI and the measures used to determine success.
3. Name a storm water management contact person.
4. Develop a Storm Water Pollution Prevention Plan (SWPPP) as necessary for Fleet Maintenance and Storage Yard facilities as required in the Phase II Regulations and the General Permit.
5. Provide to the VOV, documentation of compliance with the permit, the minimum measures, the SWPPI, SWPPP, WMP, and this agreement.
6. Approve and agree that the VCS shall provide such information and facility access hereunder as are necessary to assist the VOV in complying with the permit application requirements, the Phase II Regulations, the General Permit, the Certificate of Coverage (COC), and in other related storm water management activities.
7. Participate in subwatershed planning and implementation activities, as requested.

INTER-AGENCY AGREEMENT FOR COVERAGE UNDER THE PHASE II NPDES PERMIT

Illicit Discharge Elimination Plan (IDEP)

VOV

The VOV agrees to:

1. Develop the IDEP with VCS input and submit the IDEP to the MDEQ as required in the COC.
2. Implement the approved IDEP at the VCS, maintain records, and inform the VCS of any problems found or necessary actions required.
3. Get approval to enter the VCS for the purposes of IDEP implementation.
4. Provide training to VCS staff to enable the VCS to recognize and address illicit connections and discharges.
5. Provide IDEP training to VCS staff to enable the VCS to implement the approved IDEP at their facility. The VCS agrees to provide the VOV with a written report of all findings, observations and results.
6. Inform the VCS of any complaints that may be received regarding storm water at any VCS facility and respond to the complaints as appropriate.

VCS

The VCS agrees to:

1. Provide information to the VOV on the separate storm conveyances and on-site sewage disposal systems (OSDS) at the VCS for the development of the IDEP.
2. Allow VOV access to the VCS for the purposes of IDEP implementation.
3. Reimburse the VOV for costs of service for IDEP implementation at the rates which will be mutually agreed to.
4. Comply with VOV ordinances as they relate to the approved IDEP.
5. Comply with the approved IDEP.
6. Develop policies and procedures that parallel VOV ordinance on illicit connections and discharges that will allow the VCS to implement the approved IDEP.
7. Obtain training for maintenance staff on illicit connection and discharge recognition, OSDS, and proper storage, use and disposal of lawn and facility maintenance chemicals, fuels, cleaners, oils, greases and any other materials that pose a potential threat to surface waters.
8. Obtain training for VCS staff to allow them to implement the approved IDEP on facility property.
9. Implement the approved IDEP on facility property and provide records of efforts, including location and number of observations, sample analysis and detailed information on illicit connections and discharges that were discovered.
10. Provide a written description of the BMPs used to achieve goals and assignments of the IDEP and the measures used to determine success.
11. Respond to any complaints received regarding storm water at the facility and inform the VOV of the details of the complaint and its resolution.

INTER-AGENCY AGREEMENT FOR COVERAGE UNDER THE PHASE II NPDES PERMIT

Public Education Plan (PEP)

VOV

The VOV agrees to:

1. Develop PEP with VCS input and submit the PEP to the MDNRE as required in the COC.
2. Implement the approved PEP and include the VCS in education efforts and activities as appropriate.
3. Utilize the VCS's expertise in education to off-set costs associated with permit application and compliance.

VCS

The VCS agrees to:

1. Reimburse the VOV for costs associated with PEP development and implementation as mutually agreed to.
2. Participate fully in PEP development and implementation and utilize its expertise, contacts and resources to provide watershed and environmental education as described in the approved PEP. The education will be provided to the citizens, business owners, visitors to and employees of VOV, and to the visitors to and employees and students of the VCS,
3. Provide education on the PEP topics required by the General Permit to all staff and students
4. Provide a written description of the BMPs used to achieve goals and assignments of the PEP and the measures used to determine success.

Public Participation Plan (PPP)

VOV

The VOV agrees to:

1. Jointly with the watershed partners, develop a PPP with VCS input and submit the PPP to the MDNRE as required in the COC.
2. Implement the approved plan and include the VCS in the storm water management citizens' advisory committee.

VCS

The VCS agrees to:

1. Assist in the effort to involve the public, including VCS staff and students in the planning and implementation of storm water management.
2. Participate as a member of the PIPP citizens' advisory committee.
3. Provide a written description of the BMPs used to achieve goals and assignments of the PPP and the measures used to determine success.

INTER-AGENCY AGREEMENT FOR COVERAGE UNDER THE PHASE II NPDES PERMIT

COST SHARE

VOV

The VOV agrees to:

1. Accept the VCS assistance in actions to comply with the permit and implement storm water management VOV wide, in lieu of funds not otherwise specified. The assistance is to include manpower and resources to:
 - a. Prepare a permit application
 - b. Prepare and implement minimum measure programs.
2. Perform all functions necessary to comply with the permit within the VOV and VCS and bill the VCS on a cost per service basis. Amounts are to be mutually agreed upon prior to incurring any costs.
3. Accept responsibility for the costs of addressing noncompliance issues that are unrelated to the actions of the VCS.

VCS

The VCS agrees to:

1. The VCS agrees to pay VOV its share of the regulatory agency permit application fee promptly upon receipt of an invoice for the same from the VOV, but no later than 30 days after receipt.
2. Reimburse the VOV for costs of service for the development, implementation and administration of the storm water management program at rates to be mutually agreed upon prior to commencement of work.
3. Reimburse the VOV for all costs that are incurred in addressing noncompliance issues that are solely the result of the actions of the VCS.

INTER-AGENCY AGREEMENT FOR COVERAGE UNDER THE PHASE II NPDES PERMIT

General Agreement

1. In the event that any one or more of the provisions of this Agreement shall, for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions hereof, but this Agreement shall be constructed as if such invalid, illegal, or unenforceable provision had never been contained herein.
2. The Agreement shall become effective after approval by the governing bodies of the VOV and Nested and execution by the authorized officials of the parties; shall terminate on the expiration date of the General Permit Certificate of Coverage unless extended by the parties in writing; may be executed in several counterparts; and shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.
3. If the VOV or the VCS are unable or unwilling to comply with the Agreement, the Agreement can be terminated by any party with a thirty (30) day written notice. If the Agreement is terminated the VOV will notify in writing, the VCS that they will have to apply for a permit and the MDNRE of the termination of the agreement.
4. Modifications, amendments or waivers of any provisions of this Agreement may be made only by the written mutual consent of the parties.
5. The parties, as required by law, shall not discriminate against a person to be served, an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges or employment, or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, disability that is unrelated to the individuals ability to perform the duties of a particular job or position, height, weight, marital status, political affiliation or beliefs.

The parties shall adhere to all applicable Federal, State and local laws, ordinances, rules and regulations prohibiting discrimination, including, but not limited to, the following:

- A. The Elliott-Larsen Civil Rights Act, 1976 PA 453, as amended.
- B. The Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended.
- C. Section 504 of the Federal Rehabilitation Act of 1973, P.L. 93-112, 87 Stat 394, as amended, and promulgated thereunder
- D. The Americans with Disabilities Act of 1990, P.L. 101-336, 104 Stat 328 (42 USCA S12101 et seq), as amended, and regulations promulgated thereunder.

**INTER-AGENCY AGREEMENT
FOR COVERAGE UNDER THE PHASE II NPDES PERMIT**

IN WITNESS WHEREOF, The parties hereto have caused this Agreement to be executed and delivered by their respective duly authorized officers, all as of the day and year first above written.

Witnesseth:

By: _____

Its: _____

By: _____

Its: _____

By: _____

Its: _____

By: _____

Its: _____

By: _____

Its: _____

Chapter 5 – Enforcement Response Procedure (ERP)

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Enforcement Response Procedure (ERP)

An ordinance was adopted by the Village Board on June 21, 2010 (Ordinance No. 261) related to stormwater. The ordinance utilizes the criteria in EGLE's 2008 MS4 Permit for water quality and channel protection. In addition, a riparian buffer strip requirement is included in the ordinance. The Village's ordinance does not specify requirements for Operation and Maintenance. O&M is negotiated on a case-by-case basis during the site plan review process. If a storm water control measure, such as a retention basin in a neighborhood, is not being properly maintained, the Village would first determine if routine maintenance could resolve the problem. If more significant work is needed, a special assessment would be used to fund the work.

The Village adopted a comprehensive storm water ordinances to be in compliance with this current permit (Chapter 398 of the Code of Ordinances) on February 2021. A copy of the ordinance is included in Chapter 13.

Illicit connections are prevented by utilizing site plan review and the state plumbing inspector for new construction and redevelopment. The Stormwater Management Ordinance (Chapter 398) prohibits discharge into streets.

If an illicit connection were found, the Village would deal with the problem in a similar manner to how they deal with blight. A letter would be sent by Michigan Township Services on behalf of the Village, to provide the Owner an opportunity to reroute the connection to sanitary. If the property owner failed to cooperate, the Village would hire a contractor to fix the problem, and bill the property owner via special assessment.

If the Village encounters a situation where enforcement action is needed, they can revoke the property owner's site plan approval or revoke any existing building permits for the site. Another option would be for the Village to hire a contractor to fix a problem, than send the bill to the property owner.

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure shall be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Village of Vicksburg Enforcement Response Reporting Form

Name of Person/Owner violating ordinance:

Date of Violation:

Location of Violation:

Description of Violation:

Date Village issued enforcement response:

Description of enforcement response used (copy
attached, if applicable):

Schedule for returning to compliance:

Date the violation was resolved:

Chapter 6 – Public Participation/Involvement Program (PPP)

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Public Participation Program

POLICY

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

BACKGROUND

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

PROCEDURE

Stormwater Management Plan Available for Public Inspection and Comment

The stormwater management plan will be posted on the Village of Vicksburg's web site for review and comment by the public. This information will include the contact information of the stormwater manager to forward comments. The stormwater manager will compile and track comments from the public including commenter's name, date, and comment.

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 media, various website links, etc.) for in-person events and activities to be performed by residents independently.

Educational materials on how community members can get involved is also included on protectyourwater.net. Some examples include keeping stormwater catch basins and inlets clear of debris, reporting of any illegal dumping down catch basins and inlets, washing cars on lawn areas, routing downspouts to vegetative areas, and implementing appropriate Best Management Practices (BMP).

Public Involvement and Participation in the Implementation and Periodic Review of the Stormwater Management Plan

The following BMPs will be utilized to allow for public involvement and participation in the implementation and periodic review of the stormwater management plan.

BMP	Description	Schedule	Method of Assessment
Public Notice	The Village will publicize the document is available for review and comment on the City's website. The Village, 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.	1st Year of new permit issuance Promote document twice per permit cycle	Copy of the website showing the document was available and the number of comments. 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.
Web Site	The Village's web site will be utilized to explain the SWMP program and opportunities for public involvement and participation. Educational materials on how community members can get involved is also included on protectyourwater.net.	Ongoing	Number of comments.
Community Website Updates / Promote TMDL activities	The Village will promote events put together by the Kalamazoo River Watershed, such as "Rain Barrel Sale", Kanoe the Kazoo", etc. or other appropriate agency's events that are appropriate for this community. Educational materials on how community members can get involved is also included on protectyourwater.net.	Ongoing	Number of programs promoted on website. 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.

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure shall be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Chapter 7 – Public Education Program (PEP)

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Public Education Program (PEP)

OVERVIEW

This updated PEP is integrated into the 2022 Stormwater Management Plan (SWMP). The PEP with associated tables is included within the Chapter. The primary mechanism is to provide free public education material to residents via the Village's website, utilize a social media campaign to cover each PEP topic, and to promote ongoing stormwater education activities by other groups and agencies. The Village of Vicksburg is using their website with some basic educational information; however, the City's website will direct most of the education pieces to protectyourwater.net to cover the ten (10) educational components. The website protectyourwater.net is the KSWG group's website that hosts the education pieces that are collaboratively developed by the watershed partners.

INTRODUCTION

Background

The unique purpose of the public education portion of the NPDES MS4 permit is to increase the awareness of residents about how their everyday activities contribute pollutants to their community's water resources. Most citizens recognize the recreational and aesthetic benefits they receive from water, and most even recognize that water quality degradation is a serious concern in the Great Lakes Region. However, most people have not made the connection that most of this pollution can be generated from their normal everyday actions and not simply from large commercial and industrial sources.

Although the Village is required to implement Best Management Practices (BMP), the Sunset Lake and Portage Creek does not have a TMDL limit to meet.

The Village is currently and will continue to work collaboratively with watershed and/or regional partners on all activities in the PEP during the permit cycle.

PEP Educational Components

The following ten educational components are PEP requirements of the MS4 program:

- Topic 1: Promote public responsibility in the applicant's watershed.
- Topic 2: Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.
- Topic 3: Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4.
- Topic 4: Promote preferred cleaning materials and procedures for car, pavement, and power washing.
- Topic 5: Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.
- Topic 6: Promote proper disposal practices for grass clippings, leaf litter, and animal waste that may enter into the MS4.
- Topic 7: Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous waste, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids.
- Topic 8: Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure.
- Topic 9: Educate the public on and promote the benefits of green infrastructure and Low Impact Development.
- Topic 10: Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to storm water runoff.

VILLAGE OF VICKSBURG PEP TASK ELEMENTS

The Village of Vicksburg's planned educational activities are specified in Table 2. More specifically, these are the educational tasks to be undertaken by the Village of Vicksburg's as a component of their permit.

Table 2 of the SWMP is intended to illustrate the relationship between the 10 topic components listed above and the delivery mechanisms, evaluation methods, measurable goals, and an associated timetable for implementation.

Typically, PEP's also identifies commercial, industrial, and institutional entities likely to contribute to pollutant to storm water run-off. The Village of Vicksburg has industrial facilities in the Leja Industrial Park; however this area discharges to an infiltration basin. The institutional facility, VCS - Sunset Elementary School, has a dedicated storm line that is not connected to the Village's system and has a Storm Treatment Unit installed for treating run-off from the parking lot. The VCS High School and VCS Middle School connect to the County Drain and these facilities also have storm treatment units to treat parking lot areas. Commercial facilities are generally limited to the downtown area and have a zero set-back line, and therefore the buildings occupy 100% of the lot acreage with most of the parking lots under the control of the Village of Vicksburg within this area. The few remaining commercial sites (General Dollar, Accroseal, etc.) with dedicated parking are educated on a case-by-case basis as the need or issues occur.

SUMMARY

The Village of Vicksburg will increase public education by the following:

1. Participate in the Kalamazoo Stormwater Working Group (KSWG), the TMDL, or another active group. (Attend meetings, promote educational activities on website, etc.)
2. Provide information on the Community's website and/or links to centralized web page and utilize social media platforms to direct people to the educational materials. Work collaboratively to create, update and modify education components to develop a unified regional message.
3. Continue to support and provide Employee Training.
4. Educate commercial, industrial, and institutional entities as the need arises.
5. Conduct public survey twice per permit cycle.
6. Evaluate the effectiveness of the PEP at time of annual report.

VILLAGE OF VICKSBURG PEP - MEASURE OF ASSESSMENT

The collaborative group of partners will conduct a unified public survey twice per permit cycle to measure change in education level. The first survey will be within the first 2 years of the permit cycle (year 1 or 2) and the second survey will occur in the last 2 years of the permit cycle (year 4 or 5). This survey will be a brief and is intended to measure delivery mechanism effectiveness along with change in knowledge and behavior among residents.

The collaborative group of partners, KSWG, will assess the effectiveness of the overall PEP at the time of the annual report and make changes to improve the PEP for the remaining years within the permit cycle as it relates to the measurable goals for each Best Management Practice (BMP). The procedure for evaluating and determining the effectiveness of the overall PEP will be performed by the collaborative group of partners at the time of evaluation based on survey responses and other data available (website data, comments provided, etc.).

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure shall be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness. If current procedures or portions of the PEP are determined by the Storm Water Program Manager to be ineffective, the Village will make changes to the PEP based on input from EGLE and recommendations of the Storm Water Program Manager to improve delivery mechanism effectiveness along with increasing knowledge and behavior among residents.

Table 2 – PUBLIC EDUCATION PROGRAM (PEP)

STORM WATER MANAGEMENT PROGRAM (SWMP)

PROGRAM ELEMENTS, TASKS AND DELIVERABLES

PUBLIC EDUCATION PROGRAM ELEMENTS					
<u>Topic Number</u>	<u>PEP Topic</u>	<u>Delivery Mechanism / Methodology</u>	<u>Timetable</u>	<u>Evaluation/ Measured Element</u>	<u>Measurable Goals</u>
1	Promote public responsibility in the applicant's watershed	A representative of the MS4 community or agency participates in the TMDL, Kalamazoo Stormwater Working Group (KSWG) or other active group with education activities.	As Needed	Meeting attendance and participation in TMDL, KSWG or another applicable active group	Representative present at 50% or more of TMDL, KSWG, or other meetings. Participation by volunteering manpower, materials, or promoting educational activities on the website.
		Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.
2	Inform and educate the public about the connection of the MS4 to area waterbodies and the potential impacts discharges could have on surface waters of the state.	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.

PUBLIC EDUCATION PROGRAM ELEMENTS					
<u>Topic Number</u>	<u>PEP Topic</u>	<u>Delivery Mechanism / Methodology</u>	<u>Timetable</u>	<u>Evaluation/ Measured Element</u>	<u>Measurable Goals</u>
3	Educate the public on illicit discharges and promote public reporting of illicit discharges and improper disposal of materials into the MS4	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshoots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.
4	Promote preferred cleaning materials and procedures for car, pavement, and power washing.	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshoots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.
5	Inform and educate the public on proper application and disposal of pesticides, herbicides, and fertilizers.	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshoots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.

PUBLIC EDUCATION PROGRAM ELEMENTS					
<u>Topic Number</u>	<u>PEP Topic</u>	<u>Delivery Mechanism / Methodology</u>	<u>Timetable</u>	<u>Evaluation/ Measured Element</u>	<u>Measurable Goals</u>
6	Promote proper disposal practices for grass clippings, leaf litter, and animal wastes that may enter into the MS4.	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshoots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.
7	Identify and promote the availability, location, and requirements of facilities for collection or disposal of household hazardous waste, travel trailer sanitary wastes, chemicals, yard wastes, and motor vehicle fluids	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshoots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.
8	Inform and educate the public on proper septic system care and maintenance, and how to recognize system failure	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshoots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.

PUBLIC EDUCATION PROGRAM ELEMENTS					
<u>Topic Number</u>	<u>PEP Topic</u>	<u>Delivery Mechanism / Methodology</u>	<u>Timetable</u>	<u>Evaluation/ Measured Element</u>	<u>Measurable Goals</u>
9	Educate the public on and promote the benefits of green infrastructure and Low Impact Development.	Provide related documents on the community's website and/or links to centralized web page containing related topic. Utilize social media platforms (Facebook, Townsquare Media, etc.) to direct people to website and/or document location. The intent is to cover 2 of the 9 topics (topics 1-9) per year. Once the topic is available for promoting to the public and linked to the necessary website(s), the community or stormwater working group will utilize social media platform(s) to direct people to the material.	The topic is covered once per permit cycle (once per 5 years)	Educational document on the community's website and/or centralized web page Social media platform was used to direct people to the education document(s) Snapshots (photos) or copies of social media posts.	Education topic / documents are reviewed, revised, updated, or replaced and promoted at a minimum of once per permit cycle. Effectively reach the targeted audience within the community and collectively in all of Kalamazoo County. Goal is to have an outreach campaign with an average of 20,000 impressions a month, a click through rate (CTR) equal or above the national average.
10	Identify and educate commercial, industrial, and institutional entities likely to contribute pollutants to storm water runoff.	Visit facilities (as necessary) for personal education.	As Needed	Number of facilities visited, and number of employees educated.	Facilities are aware of where their on-site storm water goes.
1-10	Public Education delivery mechanism (Public Survey)	To be determined by Storm Water Program Manager. This may include Facebook or other social media outlet, newspaper publications, post card mailings, or other delivery mechanism.	Perform survey in year 1 or 2 to establish baseline. Perform survey in year 4 or 5 to measure change.	Webpage and Facebook metrics for KSWG and community websites, if available.	Obtain new ideas on how to reach out and educate residents. Evaluate responses to previous delivery mechanism to determine if it reached the target audience. Increase in the number of respondents with correct answers to storm water questions.

Chapter 8 – Illicit Discharge Elimination Program (IDEP)

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

ILLICIT DISCHARGE ELIMINATION PLAN (IDEP)

The IDEP with associated tables and forms is included within this Chapter.

Stormwater Ordinance

An ordinance was adopted by the Village Board on June 21, 2010 (Ordinance No. 261) and resolution 6-1-10-1. The Village adopted a comprehensive storm water ordinances to be in compliance with this current permit (Chapter 398 of the Code of Ordinances) in February 2021. A copy of the ordinance is included in Chapter 13.

Program to Find and Eliminate Illicit Discharges

As stated in the IDEP, at least once per 5-year permit cycle all of the discharge points are observed during dry weather to determine if there is the potential for an illicit discharge. A form is completed for each discharge point and a photo is taken. The forms and pictures are available at the Village of Vicksburg Hall and at the DPW office.

Staff Training

Staff training is completed once per 5-year permit cycle and when a new employee is hired. Training is dependent upon the type of staff and include (office, DPW, and seasonal). Office staff is trained on the basic awareness of the program and general overview. DPW is generally trained in how to respond to complaints, investigate illicit discharges and connections. Seasonal staff (generally limited to lawn mowing) is educated about maintenance buffers and to report unusual observations. This staff training in the past included a video developed by Wayne County. Other training materials available from the EGLE website and You-Tube may be added in future training.

Method for Determining Effectiveness

Methods for determining the effectiveness of the IDEP tasks are listed in Table 3 and discussed below. It is difficult to show effectiveness in the Village because the storm system is not very extensive. That is, there are few opportunities for illicit connections and the Village has a separate sanitary sewer system. The predominant land use is residential with some retail and light commercial. To date, very few illicit connections were identified by staff or reported and the ones that were have been corrected.

REVIEW AND ESTABLISHMENT OF LEGAL ENFORCEMENT AUTHORITY

This activity involved reviewing current legal authority and enforcement procedures of the Village to assure that it has adopted policy language necessary to fulfill its requirements under the MS4 program, and under the proposed work elements of the Storm Water NPDES Permit Application. The Village has integrated a storm water ordinance, found in Chapter 13, to implement and enforce the MS4 program.

OUTFALL IDENTIFICATION

Initial identification of outfalls within the jurisdiction of the Village has been conducted. Identification had been done through review of maps, plots, printouts, files, NPDES permits, municipal records, other agencies and field inspections. This review indicates that known public storm drains, county drains and drainage swales are primarily three types of systems. These include systems built to service Village and county roads and bridges, constructed as part of a plat development, or established for agricultural drainage.

Vicksburg made an effort in 2008 to locate all public utilities (storm and sanitary sewer) in their system by hiring a contractor to jet or clean the lines and manholes. At that time the Village did discover outfalls that they were unaware of and developed the map that was part of their current permit. Since then they made a hand drawn map of the storm system, which was drawn into GIS in 2008 and included with the permit application (which was repealed). The Village was confident that all outfalls have been discovered within the Village Limits at that time; however, continued investigation and mapping of all storm sewers and structures within the Village is ongoing by Village staff.

Angels Crossing golf course was purchased by the Village from the bank during the winter of 2009. This golf course discharges towards wetlands and has been added to the Village Storm Sewer Map.

The Vicksburg Public Schools have been added to Vicksburg permit as a nested jurisdiction in 2010 and updates to the map have been completed to include the school's property and "outfalls". Vicksburg Community Schools have their Points of Discharge labeled VCS1 – VCS10. Storm water runoff from Vicksburg High School, Vicksburg Middle School, Administration Building and the Bus Garage is collected and run through a Storm Treatment Unit, STU, (oil/water separators or Aqua Swirls). After passing thru a STU, storm water is discharged into the County Drain. Stormwater from Sunset Lake Elementary discharges directly in the Village of Vicksburg storm sewer down N. Boulevard; therefore, is not added as a new discharge point. Tobey and Indian Lake Elementary are not located in the Village; storm water from these two sites is infiltrated on site so will not add to the Village of Vicksburg discharges.

OUTFALL SCREENING PROGRAM

The Village has utilized its own employees, equipment and materials as much as possible and practical to perform Outfall Screening. The screening program identifies indicators of illicit and/or environmentally damaging discharges at storm drain outfalls. If screening indicators persist thorough follow-up evaluations (see attached Screening/Investigation SOP), then an illicit discharge will be presumed. As the Village has limited number of Outfalls and Points of Discharge, these items are not prioritized.

If during dry weather screening a previous unknown dry weather flow is discovered, the Village staff will immediately begin a field investigating of upstream manholes in an attempt to determine the source. If the source is not identified during this field screening, the Village/contracted services will take a water sample during the day of initial investigation for analyzing the discharge for indicator parameters. If field screening does not determine a source, the Village will within 45 days begin dye

testing, smoke testing and/or televising to help determine the source. If the discharge is hazardous to public health, the Village will immediately begin searching for the source.

INVESTIGATION OF ILLICIT DISCHARGES (CONTRACTED SERVICES)

Should outfall screening, sampling, citizen complaints or other mechanisms lead to discovery of suspected illicit discharge by the Village, then an illicit discharge investigation will be initiated. Due to limited staffing, equipment, etc., a detailed investigation will likely entail contracted services. These services shall be generally conducted in accordance with the Standard Operating Procedures (including forms) that are attached [i.e. based upon the City of Kalamazoo investigative model].

PUBLIC SANITARY SEWER OPERATION & MAINTENANCE

Public sewer in the Village is operated and maintained by the Village. Standard operating procedures are designed to prevent the release of sanitary wastes to the environment. Inflow and Infiltration (I&I) of sanitary waste is significantly addressed by the routine installation of storm sewer above the sanitary sewer. By maintaining a vertical separation, the chance of cross-contamination is greatly reduced. I&I are further reduced by on-going practices described below.

New service connections to the system are visually inspected. All new public sewer installation is inspected on-site and full-time during construction. Prior to acceptance, new sewers are air tested, deflection tested and videotaped. Furthermore, in response to known or suspected trouble areas, sanitary sewer mains are typically video inspected. Infrastructure inspection and service records are maintained.

Cracked sanitary or storm sewers can also be discovered by utility personnel by noticing a change in the physical integrity or flow characteristics within the infrastructure systems. In all of these situations the noted concerns shall be investigated in a timely manner and any failings repaired. Strategies for discovery include those discussed herein, visual and olfactory observations, and citizen complaints, etc. Incident tracking, field investigations, sampling and testing, and repair/resolution will be documented using standard forms included in this Chapter.

INDIRECT CONNECTIONS (DUMPING, SPILLS AND SURFACE SOURCES)

Illegal dumping directly or indirectly into storm catch basins and inlets, and spills collected by drain catch basins and inlets, are typically discovered by either visual and/or olfactory observations and are subsequently reported by citizens or municipal agents and field crews. An on-going effort to educate the citizens about water quality issues is critical to the success of decreasing illegal dumping into the storm water catch basins/inlets, and is included in the public education plan. If the Village receives a complaint related to illegal dumping or spills, they will investigate the complaint within 24-hours of receiving the notice.

PUBLIC SANITARY SEWER / ON-SITE SEWAGE DISPOSAL SYSTEMS (KALAMAZOO COUNTY HUMAN SERVICES DEPARTMENT)

A map of the sanitary sewer service area has been prepared so that areas where sanitary service is available are defined (Generally, the entire Village limits). In accordance with the Public Health Code, where public sanitary sewer service is available, the County Environmental Health, through coordination with municipal building officials, will refuse to permit installation of on-site sewage disposal systems.

As the on-site disposal system enforcing agency, County Environmental Health will continue to investigate sewage disposal system failures when received via complaint or inquiry, and will enforce correction.

PUBLIC AGENCY ‘CUSTOMER INTERACTIONS’

Because of soil erosion concerns, construction sites and related activities are recognized as major potential contributors to storm water pollution. Soil erosion control enforcement in the Village of Vicksburg along with soil erosion control permitting and inspection has been delegated to the Village of Vicksburg Staff, Street/DPW Director. The Village of Vicksburg staff also will call the Kalamazoo County Soil Erosion agent with any SESC concerns. The Road Commission of Kalamazoo County issues permits and monitors activities within its right-of-way outside the village limits. Work by utilities, contractors and other parties must comply with RCKC, KCDC and the Village of Vicksburg policies, including erosion control and site stabilization.

IDEP TRAINING

Additionally, the intent is to have Public Employees and Contractors educated regarding IDEP. Specifically the Village intends to have employee training, which may consist of DVD, off-site workshop, in-house training, or new employee orientation. The schedule for this training would be the existing employees to be trained once per 5-year permit cycle, and new employees to have one (1) training within 1-year of employment. This would also include Vicksburg Community School employees related to facilities or facility management. Contractors would be provided training materials and information in bid documents and/or preconstruction meetings and would be as needed when new contractors are hired.

COMPLAINTS & INCIDENT RESPONSE PROCEDURES

A procedure has been developed to respond to public complaints, or other reports of suspected improper connection or illicit discharges. At a minimum, the procedures include an administrative record keeping mechanism to assure full and proper resolution to the maximum extent practicable. Steps will include (1) documenting/recording the complaint or suspicion, (2) investigation, (3) source identification (4) voluntary and/or enforced corrective action, and (5) administrative tracking of steps 1 through 4 to assure remedy and closure.

A tracking system is important because locating and correcting a known or suspected discharge may not be immediately achievable. Full and prompt resolution of a reported incident may be problematic due to the episodic nature of some releases, or due to the difficulty in locating the source within an

extensive and complex drainage service area. Therefore, the incident procedure will include a DSA-based reporting system focused upon tracking both short- and long-term resolution of known and suspected concerns.

The overall goals of the tracking system are generally identified as being (a) confirmation of a concern, (b) location and identification of the source, (c) assurance that appropriate corrective action has been taken, and (d) on-going IDEP program prioritization for long-term resolution.

SPILL OR RELEASE PROCEDURE

If a spill or release of any polluting materials from the MS4 to the surface waters or ground waters of the state, unless a determination is made that the release is not in excess of the threshold reporting quantities in the Part 5 Rules, the Village will meet the following requirements:

1. Call to report releases exceeding threshold reporting quantities:
 - Kalamazoo District Office (269) 567-3500 (to be called immediately upon discovering the release) – during normal business hours; or
 - Michigan’s Pollution Emergency Alerting System (PEAS) at 800-292-4706, during non-business hours and weekends
2. Submit written report within 10 days after the release to:
 - EGLE, Water Resources Division, District Supervisor via MiWaters
3. Report releases as required under other regulations.

The written report will explain the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

SCREENING EVALUATION & ANNUAL PROGRAM PRIORITIZATION

The screening results and the incident reports will be collectively reviewed by the Village as part of an annual storm water program evaluation and prioritization effort. The purpose of this review will be to identify and prioritize proactive initiatives in areas of known concerns. This review will be based upon the outfall screening forms and the incident response forms. GIS tools will be used to the maximum extent practicable in linking recorded incidents to drainage infrastructures and geographic locations. Program prioritization decisions will be made among all the component activities of the storm water management program.

IDEP TASKS, DELIVERABLES, AND EVALUATION

The preceding discussion outlines the activities of the Village’s initiatives and the tasks, deliverables, and evaluation are found on Table 3.

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure will be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Table 3 - ILLICIT DISCHARGE ELIMINATION PROGRAM ELEMENTS (IDEP)

**STORM WATER MANAGEMENT PROGRAM (SWMP)
PROGRAM ELEMENTS, TASKS AND DELIVERABLES**

ILLICIT DISCHARGE ELIMINATION PROGRAM ELEMENTS					
<u>Task</u>	<u>Methodology</u>	<u>Time Table</u>		<u>Evaluation/ Measured Element</u>	<u>Measurable Goals</u>
		<u>Implementation</u>	<u>Evaluation</u>		
Outfall (point source) dry-weather screening	Periodic outfall re-screening	Ongoing	Annually	Outfall screening records	100% known outfall screened per permit cycle (i.e. a maximum interval of 5 years between investigations (re-screening))
Illicit discharge investigation and elimination	Elimination of identified illicit discharges	Ongoing	Annually	Contact forms and correspondence records	100% violation notices submitted to responsible party within 10 days (responsible parties to be notified within 24 hours if the illicit discharge is significant)
				Notification of non-compliance and/or demand letters	Failure of the responsible party to initiate corrective actions within 60 days shall cause a 2 nd notification to be sent; to be followed by formal citation and/or other appropriate enforcement actions
				Conformation of corrective action	100% of conformation inspection completed within 30 days following notification of corrections having been completed by the responsible party
					100% of conformation inspections are found to have adequately corrected the known deficiency
Public sanitary sewer seepage	Inspections and video taping of sanitary sewer structures and storm sewer mains.	As-Needed Based on complaints and/or inspection results	Annually	Inspection and maintenance records	100% resolution of any complaint or findings based on inspection results.
Administrative procedures	Update MS4 system mapping as additional discharge points are discovered or constructed	Ongoing	30-days from discovery	Mapped MS4 system	Updates and/or revisions within applicable timeframe
	Update and revising municipal facility inventory along with prioritization and up-to-date structural storm water control inventory as inventories are added, removed, or no longer owned or operated by the Village.	Ongoing	30-days from facility use changes or a new facility or structural storm water controls are added / removed/ or no longer owned.	Up-to-date Municipal Facility Inventory and Up-to-date structural storm water control inventory.	Updates and/or revisions within applicable timeframe
	DPW personnel training Seasonal personnel training Office personnel training	Existing employees – trained 1 per Permit Cycle New Employees – Trained during 1 year of employment	Annually	Training attendance records	All applicable staff trained according to the training schedule and applicable information DPW – Complaint response, Investigation –Spills and illicit connections Office – general overview and basic awareness Seasonal (mowing) – maintenance buffers and reporting unusual observations

STANDARD OPERATION PROCEDURES For OUTFALL SCREENING & INVESTIGATION OF ILLICIT DISCHARGES*

I. Definitions

The following are key terms and their definitions for municipal separate storm sewer systems (MS4) and procedures to perform outfall screening and the investigation of illicit discharges:

Illicit discharge: Any discharge (or seepage) to the separate storm water drainage system that is not composed entirely of storm water or uncontaminated groundwater.

Illicit connection: A physical connection to the separate storm water drainage system that 1) primarily conveys illicit discharges into the system and/or 2) is not authorized or permitted by the local authority (where a local authority requires such authorization or permit).

Point source: An outfall from a drainage system to waters of the state, or a point where a storm water drainage system discharges into a system operated by another public body.

II. Outfall Screening

The primary method to confirm the *presence of illicit discharges* will be to perform a physical inspection (screening) of the outfalls. All outfalls will initially be categorized as either having a dry weather flow or not. Figure 1: Flow Chart for Outfall Field Evaluation is designed to provide procedural guidance to upstream field investigations. A collection of Field Observations Forms (Attachment) has been prepared to record information such as weather conditions, discharge characteristics (presence and rate of dry weather flow), visual and olfactory observations of discharge characteristics (odor, color, turbidity, and floatable matter). Physical characteristics along the land/water interface will also be noted, including deposits, stains, and vegetative type and stress adjacent to the outfall, and structure condition. The form will be used to record both field and laboratory water quality results. If a dry weather flow does not exist and there is no evidence of an illicit discharge, that outfall will be revisited two additional times before the end of the initial permit period (i.e. April 1, 2008). Outfalls shall be screened at least once every five years thereafter.

If a dry weather flow exists, the discharge water will be tested for parameters such as temperature, pH, specific conductivity or total dissolved solids, total chlorine, and fluoride using appropriate field sampling/indicator kits. Each outfall will also be sampled for laboratory

* This Model SOP for the Investigation of Illicit Discharges was developed by the Kalamazoo Area Storm Water Working Group and is based upon a preliminary draft and model forms provided by the City of Kalamazoo.

analysis of fluoride and phosphorus for field confirmation and the TMDL, respectively. Additional sampling for laboratory analysis will be used only if other methods are unsuccessful in determining the source of the discharge. Additional laboratory parameters will be selected on a case-to-case basis based on the indicators best indicative of the most likely source in the area but may include surfactants/detergents, phenols, ammonia/ammonium, toxicity, and E-coli. The following describes proposed general strategies for various initial flow situations.

Dry Weather flow Indicating Groundwater

If a dry weather flow exists and initial field visual indications, olfactory observations, and field analysis indicate the lack of negative discharge characteristics discussed above, the source will initially be field investigated as being from the public water supply system or natural untreated groundwater. Since groundwater services 100 percent of the source of the Public Water Supply System and fluoride is an additive, a sample will be collected to determine if fluoride levels exist within the common range of the water system: 0.7 to 1.0 mg/L (ppm). If it is, the reason will be determined and recorded, such as from a temporary scheduled activity such as the routine flushing of the water mains, landscape irrigation runoff, dechlorinated swimming pool discharges, emergency firefighting, or a broken water main, etc. If the fluoride levels are within the typical range of area groundwater of 0.2 to 0.3 mg/L (ppm), the possibility of in-flow/infiltration of the storm water infrastructure, pumped groundwater/dewatering activities, etc. will be investigated, categorized, and recorded. If the investigation indicates that the source is not solely groundwater, the strategy described below will be followed.

Dry Weather Flow Not Indicating Groundwater

If a dry weather flow exists and it exhibits unnatural and/or negative characteristics such as odor, color, sheen, staining, floatables and other deposits, vegetative stress or excessive growth, etc., or the discharge was determined not to be from the public water supply system or natural untreated groundwater, then further discharge samples will be collected for analysis to help indicate the type and origin of the flow. To the extent practicable, screening techniques shall be undertaken at the nearest upstream manhole. If indications of a dry weather flow, illicit discharge persist, then in like manner the screening shall continue upstream to determine the section of storm main from which the illicit discharge originates. Results will be recorded on the Field Investigation Form.

III. Investigation of Illicit Discharge(s).

When outfall screening techniques indicate the existence of a potential illicit discharge, additional administrative and field investigations shall be undertaken to identify and locate the suspected source. Field Investigation Forms shall be reviewed and collected samples (if any) analyzed to help indicate the type and origin of the flow. Land use familiarity and storm sewer records will be reviewed for known connections in the upstream vicinity of the apparent segment or point of origin. Property and facility ownership will be reviewed. If potential sources are not apparent, additional field investigation shall be initiated to further refine the

location of the segment (if still undetermined) of the storm main from which the suspected illicit discharge is originating.

Source Investigation.

Screening and sampling techniques will be repeated until the apparent storm sewer segment or point of origin of the illicit discharge is reasonably ascertained. Results of these activities will be recorded on the Field Investigation Form. Names and addresses of facilities/residences along the storm main segment between the "wet" and "dry" manholes will be recorded on the Source Investigation Form. MS4 System Records will be reviewed for third-party connection listings in the upstream vicinity of the apparent segment or point of origin. Property and facility ownership will be determined. If potential sources are not apparent, the suspected segment of the storm main will be televised.

Televising the storm main will be used to visually observe and note illicit connections, pipe condition, and create a permanent record of conditions at a specific time. Conditions such as heavily stained pipe, grease build-up on pipe walls, food scraps, toilet and other paper products, soapsuds, chemicals, paint, and other waste products will be looked for and recorded. If illicit connections are still not apparent, the search for illicit connections using other strategies such as sampling for additional parameters for laboratory analysis, televising of additional storm main, smoke testing, etc. will be performed as deemed appropriate. Laboratory analysis parameters will be selected on the basis of area land use and the presence/non-presence of septic systems, and may include surfactants/detergents, phenols, ammonia/ammonium, E-coli, and toxicity screening tests.

If there is a high level of confidence regarding the source(s) of the illicit discharge based on results from this approach, the property and/or facility owner will be contacted to arrange for testing at and near the suspected illicit connection origin, as discussed in the following section.

Correspondence and Site Inspections

All contacts and correspondence will be recorded on a Contact & Correspondence Form. The property/business owners of suspected illicit connection sources would be notified by certified letter that an investigation of illicit discharges is ongoing in their vicinity, and their facility is required to be inspected on a specific date and time. An explanation of the project and inspection and testing procedures will be provided and they will be requested to contact the municipal agent if another date and time are necessary. Other sources of information regarding the property may be researched in preparation for the site inspection, including inspection reports associated with Occupancy Permits, Building Permits, Industrial Pre-treatment Program inspections and will be requested to increase their observation and reporting of poor housekeeping and suspicious plumbing connections.

An inspection will target evidence of illicit connections, illegal dumping, or poor housekeeping practices that could be a source of illicit discharges. A Facility Inspection Form will be completed to document the results of the inspection. Once an inspection has been made, an-

other letter will be sent informing them of the results, including a list of any necessary corrective actions/observed violations and/or recommendations for improved best management practices. They will be given 60 days to correct any listed illicit connections and improve poor house-keeping practices as necessary. The property owner and/or facility owner is responsible for the elimination of all illicit connections/discharges and the subsequent contacting of appropriate municipal agents to arrange for a follow-up inspection.

If violations had been found and the illicit connections and poor best management practices are reportedly eliminated and improved, respectively, a follow-up letter will be sent or a phone call will be made by the municipal agent to schedule a confirmatory inspection. After the inspections are completed and the facility is found in compliance, a final letter will be sent as a notification of compliance and appreciation. If the property/business owners do not eliminate the illicit connections as directed, a notification of non-compliance letter discussing the initiation of the legal process to complete the necessary work, citing existing code or the future IDEP Ordinance, when completed.

Testing Procedures

Generally, color dye will serve as the primary investigative means to investigate suspected illicit connections. Use of colored dyes shall be performed in accordance with MDEQ guidance and directives. Prior to use, the types of dyes will be approved by MDEQ. In addition, the municipal agent will notify MDEQ prior to dye use in case calls regarding visual observance of color discharges to the Public Emergency Assistance System (PEAS) occur.

Until such time that the Storm Water Work Group adopts a Standard Operating Procedure (SOP) for Dye, the Wayne County Department of Environmental Watershed Management Division, Dye Testing Procedures will be considered as a general guide.

Arrangements will be made for property and facility access as necessary. A crew of two or more will perform the dye inspections after a review is performed of the municipal storm water system adjacent to the subject site and a reasonable understanding of the facility plumbing configuration is achieved. If smoke testing is determined as a necessary means for source identification, the municipal agent will utilize practices consistent with industry standards. The municipal agent will contact MDEQ prior to dye or smoke testing and a reasonable effort will be made to contact all property and facility owners that may witness the effects of the testing.

Colored dye will be placed in selected plumbing fixtures at the suspected source location and downstream sanitary and storm water manholes will be monitored for the presence of dye. If dye is observed in the sanitary manhole(s) but not in the storm water system under adequate viewing conditions, it will initially be assumed that the source(s) of the illicit discharge is elsewhere and the investigation will continue. If no dye is observed in the sanitary or storm systems, another investigative method such as televising or smoke testing, etc. will be implemented to locate the illicit connection or additional dye applications may be attempted.

If dye is observed in the storm water system, a source of the illicit discharge will be considered confirmed. Subsequently, the property owner and facility owner will be formally notified directing them to eliminate the illicit connection within 60 days and to contact the city when completed to arrange for a confirmatory inspection. If dry weather flows are no longer visible after confirmation of the illicit connection elimination, it will be assumed that the illicit connection has been corrected unless evidence to the contrary exists. If dry weather flows continues, other potential sources will be investigated.

Suspected Intermittent Illicit Flows

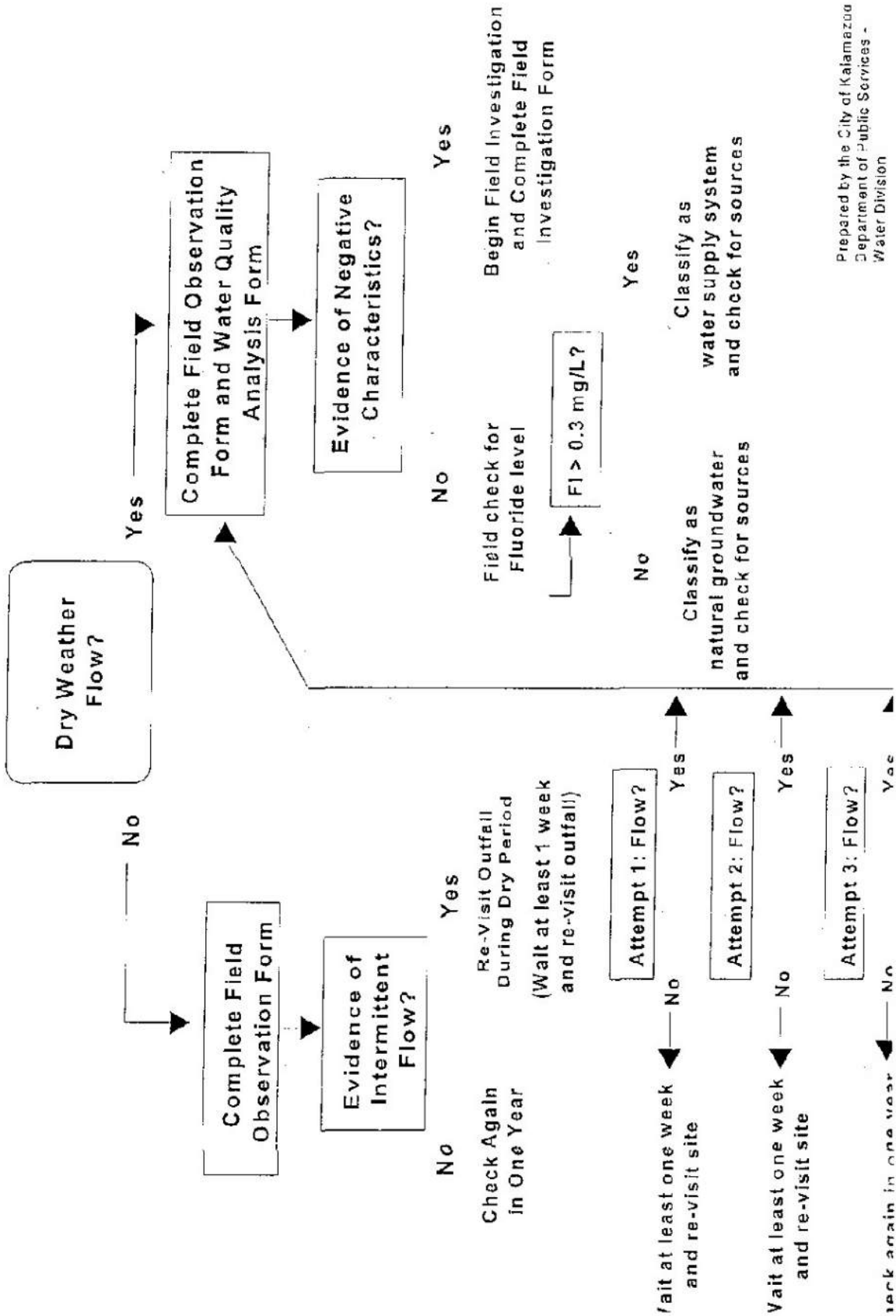
If dry weather flows were not observed at the outfall but evidence of deposits, stains, unusual vegetative type and stress, and odor adjacent to the outfall exist, an intermittent flow investigation will be initiated (Figure 1). Up to three subsequent visits will be made within one year (at least one week apart) during a dry period to document and sample a discharge. The investigative sequence of events and methodology will be similar to that with the dry weather flow but may also include wet weather sampling if the intermittent flows are not observed. Intermittent flows will be second in priority to dry weather flows.

Forms and Diagrams*

- Decision Tree – Suspected Illicit Discharge
- Outfall Evaluation/Field Observation Form
- Water Quality Analysis Form
- Field Investigation Form (Upstream Manhole Reconnaissance)
- Field Investigation Form (Potential Sources)
- Source Investigation Form
- Facility Inspection Form
- Contact and Correspondence Form
- Phone Conversation Log
- General Comment Form

* These Model forms and diagrams (preliminary drafts) of the Kalamazoo Area Storm Water Working Group were provided by the City of Kalamazoo.

**FIGURE 1
FLOW CHART FOR OUTFALL
FIELD EVALUATION**



Prepared by the City of Kalamazoo
Department of Public Services -
Water Division



OUTFALL EVALUATION FIELD OBSERVATION FORM

Outfall ID: _____ Discharge Water Body: _____

Date: _____ Time: _____ Inspector(s): _____

WEATHER

Temperature(°F): _____
☐ Clear ☐ Partly Cloudy
☐ Overcast ☐ Rain ☐ Snow

DISCHARGE CHARACTERISTICS

Flow Rate

☐ Dry, no water present ☐ Trace, insufficient to quantify ☐ Intermittent
☐ Measurable, Gallons per minute = _____ Method Used _____

Odor

☐ In flow ☐ At structure ☐ within 6 feet of structure
☐ None ☐ Gasoline ☐ Oil ☐ Solvent ☐ Sewage ☐ Sulfur/Rotten Egg
☐ Rancid/Sour ☐ Other _____

Color

☐ In flow ☐ At structure ☐ within 6 feet of structure
☐ Clear ☐ Yellow ☐ Green ☐ Red ☐ Gray ☐ Black
☐ Light Brown ☐ Medium Brown ☐ Dark Brown ☐ Other _____

Turbidity/Clarity

☐ In flow ☐ At Structure ☐ within 6 feet of structure
☐ Clear ☐ Slightly Cloudy ☐ Moderately Cloudy ☐ Highly Cloudy ☐ Opaque

Floatables

☐ In flow ☐ At structure ☐ within 6 feet of structure
☐ None ☐ Trash ☐ Sewage ☐ Oily Sheen ☐ Scum ☐ Other _____

PHYSICAL CHARACTERISTICS

Deposits/Stains

☐ In flow ☐ At structure ☐ within 6 feet of structure
☐ None ☐ Sediment ☐ Oily ☐ Grease ☐ Crystalline Powder
☐ Fragments ☐ Other _____

Vegetation

☐ In flow ☐ At structure ☐ within 6 feet of structure
☐ None ☐ Normal ☐ Excessive ☐ Algae ☐ Other _____

Structural

☐ In flow ☐ At structure ☐ within 6 feet of structure
☐ Normal ☐ Cracking ☐ Settlement ☐ Corrosion ☐ Other _____

COMMENTS

(SEE BACK FOR WATER QUALITY ANALYSIS FORM)

THE CITY OF



**OUTFALL EVALUATION
WATER QUALITY ANALYSIS FORM**

Outfall ID: _____ Discharge Water Body: _____

Date: _____ Time: _____ Inspector(s): _____

DISCHARGE CHARACTERISTICS

Field Analysis (required for every sample)

Temperature (°F): _____ pH: _____

Specific Conductivity (micromhos): _____ OR Total Dissolved Solids (ppm): _____

Total Chlorine (ppm): _____ Fluoride (mg/L): _____

Laboratory Analysis

**Only required for Fluoride and Phosphorus unless approved by supervisor.
Record result and place Laboratory Analytical Reports in appropriate outfall file.**

Fluoride (mg/L): _____ Total Phosphorus (ug/L): _____

Surfactants/Detergents: _____ Phenols: _____ Ammonia/Ammonium: _____

Toxicity Screening: _____ E-Coli: _____

Other: _____

Note: If outfall is underwater or not safe to access, obtain sample from first available upstream manhole using an in-line sampling device ("sampling stick").



ILLICIT DISCHARGE ELIMINATION PLAN
FIELD INVESTIGATION FORM

Outfall ID with Dry Weather Flow: _____

Date: _____ Time: _____ Inspector(s): _____

Upstream Manhole Reconnaissance

Start with immediate upstream manhole on primary storm main and work consecutively upstream.
Indicate manholes inspected on field map(s).

Manhole I.D.: _____ Dry Weather Flow? ☐ Yes ☐ No

If yes, continue to next up-gradient manhole.

If no, check field maps for connections within subject storm main segment between outfall and first upstream "dry" manhole. Proceed up-gradient manhole reconnaissance in each secondary storm main segment, repeating same procedure until the main segment contributing the flow is identified. List two manhole I.D.'s defining segment and indicate on field map.

Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No
Manhole I.D.: _____	Dry Weather Flow? ☐ Yes ☐ No

over



**ILLICIT DISCHARGE ELIMINATION PLAN
SOURCE INVESTIGATION FORM**

Outfall ID with Dry Weather Flow: _____

Investigator(s): _____

Pipe Segment To Investigate

"Wet" Manhole ID: _____

"Dry" Manhole ID: _____

Pipe Segment ID: _____

Sources To Be Investigated

**List facilities/residences and associated addresses along storm main segment between
"wet" and "dry" manholes, starting with most downstream and proceeding upstream:**

- | | |
|----------------|----------------|
| 1. Name _____ | Address: _____ |
| 2. Name _____ | Address: _____ |
| 3. Name _____ | Address: _____ |
| 4. Name _____ | Address: _____ |
| 5. Name _____ | Address: _____ |
| 6. Name _____ | Address: _____ |
| 7. Name _____ | Address: _____ |
| 8. Name _____ | Address: _____ |
| 9. Name _____ | Address: _____ |
| 10. Name _____ | Address: _____ |
| 11. Name _____ | Address: _____ |
| 12. Name _____ | Address: _____ |
| 13. Name _____ | Address: _____ |
| 14. Name _____ | Address: _____ |
| 15. Name _____ | Address: _____ |



**DISCHARGE TO STORM SEWER
FIELD INVESTIGATION FORM**

Storm Sewer Structure Entry Point ID: _____

Downstream Outfall ID: _____

Inspector(s): _____ Date: _____ Time: _____

Observations

Observed Conditions: _____

Results

Action Taken: _____

Followup Needed: _____

Comments



ILLCIT DISCHARGE ELIMINATION PLAN FACILITY INSPECTION FORM

Outfall ID with Dry Weather Flow: _____

Date: _____ Time: _____ Inspector(s): _____

FACILITY INFORMATION

Name of Facility: _____ Address: _____

Facility Contact: _____ Phone Number: _____

ILLCIT DISCHARGE TESTING

Type of Test: ☐ Dye ☐ Smoke ☐ Other _____

Test Results

☐ Proper Connection - The fixtures tested in this establishment have been found to be properly connected to the sanitary sewer system. No problems were noticed at time of inspection.

☐ Incomplete/unfinished (state reason): _____

☐ Unsuccessful attempt (state reason): _____

☐ Violation/Illicit Connection/Improper discharge:

☐ Illicit Connection

☐ Improper Discharge

☐ Poor Housekeeping

List All Fixtures Tested: _____

Comments: _____



**ILLICIT DISCHARGE ELIMINATION PLAN
CONTACT & CORRESPONDENCE FORM**

Outfall ID with Dry Weather Flow: _____

Inspector(s): _____ Date: _____

Contact/Correspondence (check type):

☐ Phone Log (describe or attach separate log)

Contact: _____

Discussion: _____

☐ Letters (attach)

☐ Notification of Inspection/Testing Schedule

☐ Notification of Inspection Follow-up Results/Necessary Corrective Actions

☐ Notification of Illicit Connection Elimination Confirmation Inspection Schedule

☐ Notification of Compliance/Appreciation

☐ Notification of Non-Compliance/Legal Procedures

☐ Other (Describe): _____

Owner/Operator: _____

Address: _____

City: _____ Zip Code: _____

Regarding Business: _____

Address: _____

City: _____ Zip Code: _____



ILLICIT DISCHARGE ELIMINATION PLAN PHONE CONVERSATION LOG

Date: _____ Time: _____

City Representative: _____

Person Talked With

Name: _____ Title: _____

Address: _____ Organization: _____

Phone Number(s): _____

Illicit Discharge or Connection

Location: _____

Description of Discharge: _____

Illicit discharge or connection observation: _____
(Date) (Time)

Other notes: _____

Message Referral

Message referred to: _____ on _____
(City Representative) (Date & Time)

How was referral made? (check all that apply)

☐ Phone Conversation ☐ Phone Message ☐ Email ☐ In Person

Provide copy of log to appropriate City contact

Confirmation of Phone Log Receipt: _____
(signature) (Date)

Action taken or to be taken: _____

(To be filed in outfall file)

Environmental Services 10/03



SPILL OR RELEASE REPORT

NOTE: Some State and Federal regulations require a specific form to use and procedures to follow when reporting a release. Those forms and procedures **MUST** be used and followed if reporting under those regulations. Please refer to the Michigan Reporting Requirements Tool to aid you in determining the proper form to use. This report form, although not required to be used, is designed to aid person to report releases under regulations. To report a release, some regulations require a facility to call the EGLE PEAS Hotline at 800-292-4706 (or the EGLE District Office that oversees the county where it occurred) and other agencies and provide information that is included in this form. This form may also be used for the written follow-up report to the department. If you prefer to submit this report electronically by FAX or e-mail, contact the regulating agency for the correct telephone number or e-mail address. Go to www.michigan.gov/chemrelease for more information.

Please print or type all information.

Name of Person Submitting Written Report		Title of Person Submitting Written Report		Telephone Number (provide area code)		
Name of Business		Release Location (Provide address if different than business, if known, and give directions to the spill location. Include nearest highway, town, road intersection, etc.)				
Street Address						
City	State					ZIP
Business Telephone Number (provide area code)						
Site Identification Number and Other Identifying Numbers (if applicable)		County	Township	Tier/Range/Section (if known)		
Release Data: Complete all applicable categories. Check all the boxes that apply to the release. Provide the best available information regarding the release and its impacts. Attach additional pages if necessary.						
Date of Release (if known)	Date of Discovery	Duration of Release (if known)	Type of Incident			
Time of Release (if known)	Time of Discovery	days hours minutes	☐ Explosion ☐ Loading/unloading release ☐ Fire ☐ Pipe/valve leak or rupture ☐ Leaking container ☐ Vehicle accident ☐ Other			
Oam Opm						
Material Released (chemical or trade name)		CAS Number or Hazardous Waste Code	Estimated Quantity Released (indicate unit e.g. lbs, gals, cu ft or yds)	Physical State Released (indicate if solid, liquid, or gas)		
☐ Check here if additional materials listed on the attached page						

Factors Contributing to Release		Source of Loss	
☐ Equipment failure ☐ Operator error ☐ Faulty process design	☐ Training deficiencies ☐ Unusual weather conditions ☐ Other 	☐ Container ☐ Railroad car ☐ Pipeline ☐ Ship	☐ Tanker ☐ Tank ☐ Truck ☐ Other
Type of Material Released		Material Listed on or Defined by	
☐ Agricultural: manure, pesticide, fertilizer ☐ Chemicals ☐ Flammable or combustible liquid ☐ Hazardous waste ☐ Liquid industrial waste ☐ Oil/petroleum products or waste ☐ Salt ☐ Sewage ☐ Unknown ☐ Other 	☐ CAA Section 112(r) list (40 CFR Part 68) ☐ CERCLA Table 302.4 (40 CFR Part 302) ☐ EPCRA Extremely Hazardous Substance (40 CFR Part 355) ☐ NREPA Part 31, Part 5 Rules polluting material ☐ NREPA Part 111 or RCRA hazardous waste ☐ NREPA Part 121 liquid industrial waste ☐ Unknown ☐ Other 	Immediate Actions Taken	
		☐ Containment ☐ Diversion of release to treatment ☐ Dilution ☐ Evacuation ☐ Decontamination of persons or equipment ☐ Hazard removal ☐ Neutralization ☐ Monitoring ☐ System shut down ☐ Other 	
Release Reached			
☐ Surface waters (include name of river, lake, drain involved)			
☐ Distance from spill location to surface water, in feet			
☐ Drain connected to sanitary sewer (include name of wastewater treatment plant and/or street drain, if known)			
☐ Drain connected to storm sewer (include name of drain or water body it discharges into, if known)			
☐ Groundwater: Is it a known or suspected drinking water source? Yes ☐ No ☐ What is the name of aquifer, if known?			
☐ Soils (include type e.g. clay, sand, loam, etc.)			
☐ Ambient Air			
☐ Spill contained on impervious surface			
Extent of Injuries(if any)	Was Anyone Hospitalized? ☐ Yes Number Hospitalized: ☐ No	Number of Injuries Treated Onsite: 	

Describe the incident, the type of equipment involved in the release, how the volume of loss was determined, along with any resulting environmental damage caused by the release. Identify who immediately responded to the incident (own employees or contractor — include cleanup company name, contact person, and telephone number). Also identify who did further cleanup activities if performed or known when report submitted.

☐ **Check here if description or additional comments are included on attached page**

Estimated quantity of any recovered materials and a description of how those materials were managed (include disposal method if applicable)

☐ **Check here if description or additional comments are included on attached page**

Assessment of actual or potential hazards to human health (Include known acute or immediate and chronic or delayed effects, and where appropriate, advice regarding medical attention necessary for exposed individuals.)

☐ **Check here if description or additional comments are included on attached page**

Michigan Department of Environment, Great Lakes, and Energy Notified

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All EGLE Staff Contacted

Telephone Number

Name of Person Making Initial Report

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- ☐ Air Quality Division
- ☐ Drinking Water and Environmental Health Division
- ☐ Environmental Support Division
- ☐ Materials Management Division
- ☐ Office of Climate and Energy
- ☐ Office of the Clean Water Public Advocate
- ☐ Office of the Environmental Justice Public Advocate
- ☐ Office of the Great Lakes
- ☐ Oil, Gas, and Minerals Division
- ☐ Remediation and Redevelopment Division
- ☐ Water Resources Division

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- ☐ National Response Center (NRC): 800-424-8802
- ☐ US Coast Guard Office:
- ☐ Detroit ☐ Grand Haven ☐ Sault Ste. Marie
- ☐ US Department of Transportation
- ☐ US Environmental Protection Agency
- ☐ 911 (or primary public safety answering point)
- ☐ Local Fire Department
- ☐ Local Police/State Police/Sheriff Dept
- ☐ Local Emergency Planning Committee
- ☐ State Emergency Response Commission via MI SARA Title III Pgm
- ☐ Wastewater Treatment Plant Authority
- ☐ Hazmat Team
- ☐ Local Health Department
- ☐ MIOSHA
- ☐ Bureau of Fire Services Fire Marshal Division
- ☐ MI Dept of Agriculture & Rural Development: 800-405-0101
- ☐ Other

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Signature of Person Submitting Written Report

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Chapter 9 – Construction Storm Water Runoff Control Program

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Construction Storm Water Runoff Control Program

POLICY

This policy is to establish procedures for the Village of Vicksburg Construction Storm Water Runoff Control Program.

BACKGROUND

The Village of Vicksburg is not a Part 91 Qualifying Soil Erosion Control Agency. The Village relies on the Kalamazoo County Soil Erosion Agent (KCDC) for its rules and regulations.

PROCEDURE

The Village will support and promote program requirements of the local Soil Erosion and Sedimentation Control Authority.

During the site plan review developers are referred to the County SESC agency for permitting when appropriate. If the site is 1 acre or larger and contains a point source discharge of storm water from a construction activity, then the developer will also be advised to comply with State of Michigan, Permit by Rule (Rule 323.2190), which includes the contractor providing a certified storm water operator and conducting regular inspections in compliance with Permit by Rule.

If complaints related to SESC are received from the public, the complaint will be referred to DPW staff for evaluation. DPW staff will perform a site inspection within 48 hours of being notified of the issue and determine site compliance. For sites not complying with the requirements of the soil erosion permit, DPW staff will contact the Kalamazoo County Soil Erosion Agent in a reasonable timeframe to inform of the infraction and provide enforcement action for improvements. In addition, Vicksburg also notifies the county SESC agent if the Village notices any issues that need to be addressed by the County SESC staff.

If soil, sedimentation, or other pollutants are discharged to Vicksburg's MS4 from a construction activity, the Village will notify the EGLE with 24-hours of discovery. Other pollutants may include, but not limited to pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed.

Additionally, the Village will notify the EGLE within 24-hours per part 4, Rule 50 (R 323.1050 – Physical characteristics) if the surface waters of the state have any of the following physical properties in unnatural quantities which are or may become injurious to any designated use: turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits.

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure shall be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Chapter 10 – Post-Construction Storm Water Runoff Program

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Post-Construction Storm Water Runoff Program

OVERVIEW

Site plans within the Village of Vicksburg are reviewed by the planning commission. As a general rule, the municipality requires site plan review for all but single family residential buildings. The review includes appropriate storm water Best Management Practice's (BMP's) such as: on-site management (no additional runoff standard); isolation of storm water from pollutants; secondary containment when required; and protection of central environmental resource areas, and long term operations and maintenance along with the requirements of the Performance Standards adopted by the Village. The applicant, in his plan submittals for Site Plan Approval, shall demonstrate compliance with these performance standards and shall be responsible for evaluating the elected best management practices.

The Village's Performance Standards apply to all new and redeveloped sites with projects that that require site plan review, regardless of the size of the parcel or area that is disturbed. These requirements also apply to all public and private sites within the Village, regardless of whether the stormwater outlet(s) from the site discharge to a designated county drain, Village storm sewer system, waters of the state or any other types of conveyance. All water quantity structurers will be subject to post-construction water requirements.

These Performance Standard's requirements also apply to sites under the control of public agencies such as schools, Federal and State governmental facilities, Road Commission of Kalamazoo County, Village of Vicksburg, a designated County Drain, and other entities that might not otherwise be subject to site plan review procedures and requirements as set forth in other sections of the Village's codified ordinances. When the Village is notified of a project or potential project by an agency within the Village limits that does not require site plan review, the Village will provide the agency written communications and a copy of the Village's Performance Standards and also request reviewing the proposed plans to provide input for the agency to implement such Standards.

Complaints of storm water or local flooding issues are responded to promptly by enforcing storm water ordinances and commitments made during site plan approval.

Problematic retention, detention, and infiltrative areas are reviewed after rainfall events to ensure infiltration. The Village currently owns twelve (12) infiltration areas, generally located in the west and northwest side of the Village.

As mentioned earlier, the Village adopted a comprehensive storm water ordinances to be in compliance with this current permit (Chapter 398 of the Code of Ordinances) and includes the following:

a) Minimum Treatment Volume Standard

The document provides a "performance standard" for the minimum treatment volume standard.

b) Channel Protection

The "performance standard" also defines the channel protection criteria.

c) Operation and Maintenance for Water Quality Treatment

The document defines enforcement mechanisms for the Village to use to ensure operation and maintenance is continued for installed BMP's. This includes the execution and recording of a storm water BMP O&M agreement (see Chapter 15 of this application). This O&M agreement is transferred to subsequent property owners as outlined within the agreement.

SITE-SPECIFIC REQUIREMENTS (CONTAMINATED SITES)

Site plans within the Village of Vicksburg are reviewed by the planning commission. As a general rule, infiltration and maintaining all storm water on-site in the preferred method.

Sites which are contaminated (soil and/or groundwater) require special consideration during site plan review and are expected to still comply with the Village's stormwater performance standards. Typical solutions are to use proprietary treatment systems for storm water treatment and vaults and/or lined detention systems with controlled outlets for reducing flow rates to comply with such requirements. Additionally, the projects will be coordinate with EGLE staff as appropriate. The ultimate goal of the Village is to not have the developer /owner exacerbate existing conditions.

SITE-SPECIFIC REQUIREMENTS (HOT SPOT SITES)

If the subject property is a potential "Hot Spot" area with the potential for significant pollutant loading or with the potential for contaminating public water supply (wells), additionally site-specific requirements may apply to address the contaminate(s) of concern. Example of typical "hot spots" areas included, but not limited to gas stations, commercial vehicle maintenance and repair, auto recyclers, recycling centers, and scrap yards.

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure will be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Table 4 – POST CONSTRUCTION

**STORM WATER MANAGEMENT PROGRAM (SWMP)
PROGRAM ELEMENTS, TASKS AND DELIVERABLES**

POST CONSTRUCTION					
Task	Methodology	Time Table		Evaluation/ Measured Element	Measurable Goals
		Implementation	Evaluation		
Site Appropriate BMP's	Site plans for all new and redeveloped sites other than single family homes shall be reviewed by the planning commission. Review shall include appropriate storm water BMP's such as: on-site management (no additional runoff standard); isolation of storm water from pollutants; secondary containment when required; and protection of central environmental resource areas, and long term operations and maintenance along with the requirements of the Storm water ordinance adopted by the Village. Site plans include a Stormwater Management Plan Site Plans include City's worksheets for Water Quality Treatment Volume, Channel Protection, and where applicable, Flood Control. Property Owner provides and executed copy of the BMP O&M Agreement for recording Performance Standard's requirements also apply to sites under the control of public agencies such as schools, Federal and State governmental facilities, Road Commission of Kalamazoo County, Village of Vicksburg, a designated County Drain, and other entities that might not otherwise be subject to site plan review procedures and requirements as set forth in other sections of the Village's codified ordinances. When the Village is notified of a project or potential project by an agency within the Village limits that does not require site plan review, the Village will provide the agency written communications and a copy of the Village's Performance Standards and also request reviewing the proposed plans to provide input for the agency to implement such Standards. All water quantity structurers will be subject to post-construction water requirements.	On-going	On-going	Site plans are reviewed and conform to applicable Performance Standards, such as, minimum treatment volume, channel protection, riparian buffers operation and maintenance outlined in the Village's ordinance Village Engineer verifies developer's engineers calculations	All site plans reviewed and conform to applicable Performance Standards within the Village ordinance. BMP O&M Agreement is executed and recorded All public agencies such as schools, Federal and State governmental facilities, Road Commission of Kalamazoo County, Village of Vicksburg, a designated County Drain, and other entities that might not otherwise be subject to site plan review procedures and requirements as set forth in other sections of the Village's codified ordinances conform to applicable Performance Standards within the Village ordinance. All new water quantity structurers met post-construction water requirements.
Long-term operation and maintenance and enforcement	Respond to complaints of storm water or local flooding issues promptly by enforcing storm water ordinances, performance standards, and commitments made during site plan approval.	On-going	On-going	Number of complaints	Number of complaints vs. number of complaints resolved
	Informal observation of private problematic retention and detention ponds after rainfall events to ensure infiltration.	On-going	On-going	Number of ponds that are not functioning properly	Fewer ponds that are not functioning properly
	Site plans provide O&M procedures related to site specific Stormwater Treatment Units (STUs) and/or BMPs.	On-going	On-going	Information provided on site plan and installed per Village approval. BMPs identified in the Stormwater Management Plan	100% site plan conformance BMP O&M agreement is recorded
	Site plans provide provisions such as periodic inspections related to Stormwater Treatment Units (STUs) and/or BMPs.	On-going	On-going	Information provided on site plan and inspected per Village approval.	BMPs installed per plan and inspection records available upon request.

POST CONSTRUCTION					
Task	Methodology	Time Table		Evaluation/ Measured Element	Measurable Goals
		Implementation	Evaluation		
	BMP agreement associated with the site plans provide provisions related to periodic inspections of Stormwater Treatment Units (STUs) and/or BMPs.	On-going	On-going	Information provided on site plan and inspected per Village approval.	BMPs installed per plan and inspection records provided to Village on an annual basis and also available upon request.
	Record Retention – Inspections and other records pertaining to O&M of best management practices are maintained by the property owner and retained for a minimum of five years	On-going	On-going	Site provide timely annual reporting 5 years of records available	Village maintains the annual reports on file at Village Hall related to individual sites. Village notifies property owner with 30-days if annual report is not provided. Records available from property owner upon request

Chapter 11 – Pollution Prevention and Good Housekeeping Program

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Pollution Prevention and Good Housekeeping

MUNICIPAL FACILITIES & FACILITY-SPECIFIC STORM WATER MANAGEMENT

The Village owns and operates a Municipal Building with a co-located police station. The municipal water tower is located behind the Municipal Building.

The Village owns and operates a Department of Public Works (DPW) maintenance building. The Village of Vicksburg DPW maintenance building and Storage Yard is located on North Main Street. Storm sewer are located in North Main Street, however the storm water from the Storage Yard does not discharge to these storm sewers. Only half of the DPW building, a portion of the driveway and the front lawn of this property would drain to the storm sewers. Two leaching basins are located in the storage yard to collect storm water and the remaining runoff is carried by overland flow under/through a fence and collects in the Grand Trunk Railroad right-of-way located south of the property where it infiltrates. The Village DPW maintains the yard and associated activities in conformance to common sense related to pollution prevention and good housekeeping, like grounds keeping and preventing “tracking” out from the yard. A map showing the aerial photograph of this property with the drainage patterns and leaching basins indicated is included in the Chapter.

The Village also operates parking lots, a public beach, a golf course and several parks. Most of these locations discharge storm water either into the storm sewers in the street or on site retention basins except the golf course.

Angels Crossing golf course was purchased by the Village from the bank during the winter of 2009. This golf course discharges towards wetlands.

Vicksburg Community Schools became nested within the Village of Vicksburg’s watershed-based permit in 2010 and therefore the Village of Vicksburg has added the Vicksburg Community School’s storm water discharges to their overall storm sewer system. Storm water runoff from Vicksburg High School, Vicksburg Middle School, Administration Building and the Bus Garage is collected and run through a Stormwater Treatment Unit, STU, (oil/water separators or Aquaswirls). After passing thru a STU, storm water is discharged into the County Drain. Stormwater from Sunset Lake Elementary discharges directly in the Village of Vicksburg storm sewer down N. Boulevard and has a storm treatment unit installed prior to discharging. Tobey and Indian Lake Elementary are not located in the Village; storm water from these two sites is infiltrated on site.

The facilities above are reviewed and prioritized by the Village based on having the high, medium, or low potential of discharging pollutants to surface waters of the state. The prioritization of the Village of Vicksburg’s and Vicksburg Community School’s facilities are as follows:

Village Hall / Police Station	Low Priority
DPW facility	Low Priority
Village Parks	Low Priority
Public Beach	Low Priority
Golf Course	Low Priority
VCS Administration Building	Low Priority
VCS High School	Low Priority
VCS Middle School	Low Priority
VCS Sunset Lake Elementary	Low Priority
VCS Bus Maintenance Garage	High Priority

Considerations in prioritizing each facility included:

- Amount of urban pollutants stored at the site (sediment, nutrients, metals, hydrocarbons, pesticides, fertilizers, herbicides, chlorides, trash, bacteria, and other site-specific pollutants)
- Identification of improperly stored materials
- The potential of polluting activities to be conducted outside (vehicle washing)
- Proximity to waterbodies
- Poor housekeeping practices
- Discharge of pollutants of concern to impaired waters

If a facilities use changes or a new facility is obtained by the Village, the Storm Water Program Manager shall update/revise the facility assessments a minimum of 30 days prior to discharging stormwater from a new facility and within 30 days of determining a need to update/revise the facility assessment. At a minimum the Village will identify the BMPs currently implemented or to be implemented during the permit cycle to prevent or reduce pollutant runoff at each facility to surface waters of the state using the assessment and prioritization list identified in the above paragraphs.

STORM WATER CONTROL INVENTORY

The Village of Vicksburg owns and maintains public roads, sanitary sewer, storm sewer, and water main. The Village has twenty-three (23) outfalls which discharge directly to the creek, lakes or adjoining wetlands. Three (3) of the primary outfalls were installed with Storm Treatment Units. In total the Village has 4 STUs as Outfall has dual units due to flow requirements. The Village also has twenty (20) outfalls that discharge to 12 infiltration areas under the jurisdiction of the Village and none of these outfalls contain any storm water treatment system. The Village also has nine (9) locations known as outfalls that connect to the “Vicksburg Drain” under the jurisdiction of the Kalamazoo County Drain Commission, which also does not contain any storm water treatment system.

The Vicksburg Public Schools Vicksburg Community Schools has nine (9) points of discharge to KCDC, two (2) STUs, and 2 oil/grit separators. Storm water runoff from Vicksburg High School, Vicksburg Middle School, Administration Building and the Bus Garage is collected and run through a Storm Treatment Unit, STU, (oil/water separators or Aquaswirls). After passing thru a STU, storm water is discharged into the County Drain.

A map showing the Village's overall storm sewer system and a list of assets are included in Chapter 3.

STRUCTURAL STORM WATER CONTROL AND MAINTENANCE ACTIVITIES

The Village of Vicksburg prioritizes the catch basins within the system for routine inspection, maintenance, and cleaning based on preventing or reducing pollutant runoff. Approximately 55% (363 of 658 structures) of storm structures discharge to the waters of the state. These 363 structures are located in the urban downtown areas east and south Sunset Lake, Angels Crossing clubhouse and Bridgeview Condominium area, and along Prairie Street and Boulevard Street. The structures are given higher priority over the 295 that do not discharge to waters of the state.

The Village performs detailed visual inspections of leaching basins drywells on a 2-year cycle and catch basins on a 3-year cycle. Sumps in catch basin within Village's storm system are 2' deep below the lowest invert of the pipes. Debris levels are determined by measuring the distance between the lowest pipe and the top of the sediment by a grade rod (pole) with distant markings and then documented on a reporting sheet and/or GIS. Catch basin cleanouts are done on an as needed basis and are cleaned when the depth of sedimentation exceeds approximately 1/3 the sump depth of the structure (less than 14" of gap between the lowest invert and top of debris). These services are contracted-out, with vendor records retained for verification that the waste was disposed of properly. Cleaning, dewatering, storage, and disposal of materials and sediment complies with EGLE's "Catch Basin Cleaning Activities Guidance Document". Currently no storm structures within the Village have warranted a more frequent inspection than outlined above.

If the Village determines during the inspection of catch basins or via citizen complaint that more routine maintenance or cleaning is necessary, the Village will revise its frequency for inspection of a specific structure accordingly by inspecting the structure yearly to determine an acceptable inspection frequency. The Village will inspect all newly constructed storm structures at 1-year and 3-years from installation to determine if once per 3-year routine inspection is applicable or if a more frequent inspection is warranted.

As part of the SAW grant, the Village has completed the mapping of their sanitary sewer system and the vast majority of their storm sewers. Within the Village, sanitary sewers are at an elevation below the storm sewer system; therefor seepage of sanitary sewage to storm systems is not likely. In areas where they are in close proximity and at similar elevation, the Village, by the use of video and/or dry weather screen evaluates if seepage is occurring.

MUNICIPAL OPERATIONS AND MAINTENANCE ACTIVITIES

Vicksburg Community Schools provides compliance actions similar to the Village and included but not limited to, staff training, public education, outfall discharge point observation, compliance with the Village's performance standards, vehicle maintenance and fueling practices. All necessary compliance associated with school property and school activities are completed by Vicksburg Community School's staff. Vicksburg Community Schools will take a lead role in educational efforts and have education information available to staff, students, and parents. Vicksburg Community School's staff will be included in all training efforts made by the Village of Vicksburg.

Street Sweeping

Street sweeping is performed twice per year and is limited to curb and gutter street. Sweeping is performed in the spring to remove salt and in the fall to remove leaves and organic debris. If the Village determines a street requires more routine sweeping is necessary, based on citizen comments or if the surface waters of the state develop any of the following physical properties in unnatural quantities which are or may become injurious to any designated use: turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits caused by pollutants upon Village streets and parking lots, the Village will revise its frequency for sweeping of that street to an acceptable frequency. Currently no streets within the Village have warranted a more frequent sweeping than once per year.

These services are contracted-out, with vendor records retained for verification that the waste was disposed of properly. As the Village is responsible for ensuring contractors use proper disposal methods, the Village uses bid specification or contract language and requests documentation upon completion. Potential pollutants associated with street sweeping included silt and sedimentation (TSS) that could contain phosphorus, nitrogen, or other contaminants. Proper sweeping methods include operating sweeping equipment according to the manufacturer's operating instructions and to protect water quality. Cleaning, dewatering, storage, and disposal of street sweeper waste materials complies with EGLE's "Catch Basin Cleaning Activities Guidance Document" to minimize release of the pollutants.

Contractors conducting work within City limits are also required to maintain their sites and not track sedimentation onto City streets and parking lots. If sedimentation is found from active construction sites to the tracked onto City right-of-ways, the Contractors are notified and required to immediately sweep the affected area to remove the sediment.

Composting

The Village collects leaves during the fall months and disposes of the leaves on a vacant lot in town. The leaves are then tilled and composted naturally. Potential pollutants are not expected to be discharged from this operation and maintenance activity.

Salt & Winter Operations – Village of Vicksburg

During the winter, the Village applies salt to the sidewalks and roads when necessary. The Village follows the guidance of MDOT for deicing and will consider other options if MDOT determines they are most cost effective. The Village's salt trucks and spreaders are manually calibrated based on conditions. After a heavy snow fall, snow is collected from the downtown area and hauled to the former paper mill site where the snow melts and leaches directly into the soil. The Village's salt storage building is located at the DPW property. A Pollution Incident Prevention Plan (PIPP) was prepared and is included in this Chapter.

Salt & Winter Operations – Vicksburg Community Schools

During the winter, the VCS applies salt to the sidewalks, entryways and parking lots when necessary. Vicksburg Community Schools only stores a small quantity on site contained in bags, with is used for the sidewalks near the entrances. The salt used for the parking lots is obtained from the Village of Vicksburg's DPW salt storage yard and is transported to the site at the time of use. This work is performed by VCS staff and is not currently contracted out. VCS's salt trucks and spreaders are manually calibrated based on conditions. The Village's salt storage building is located at the DPW property.

Vehicle Washing - Vicksburg

Village vehicles are washed in a bay where the water drains into a floor drain that is connected to the sanitary sewer system. A private facility is also occasionally used that drains directly to the sanitary sewer. Potential pollutants are not expected to be discharged from this operation and maintenance activity.

Vehicle Bus Washing - Vicksburg Community Schools

Buses are washed in a bay located at the bus garage. They are washed 2 to 3 times per week depending upon the road conditions and weather. The water from the wash bay drains into a floor drain that is connected to the sanitary sewer system. Potential pollutants are not expected to be discharged from this operation and maintenance activity.

Vehicle Fueling

The Village vehicles are fueled at public gas station located within the Village. All employees are instructed to stay by and monitor their vehicle when fueling. Potential pollutants would be gasoline or diesel fuel but are not expected to be discharged from this operation and maintenance activity.

Household Hazardous Waste Recycling Program

The Village of Vicksburg has curbside recycling pickup available to all residents. Additionally, Vicksburg began re-participating in funding the Household Hazardous Waste program and is free to all Village Residents. The Village also has literature related to the HHW program at the Village's office for residents to obtain more information regarding this program. Potential pollutants are not expected to be discharged from this operation and maintenance activity.

Sidewalk, Curb and Gutter repair and pothole patching

The Village of Vicksburg performs small quantity repairs to sidewalk, curb and gutters, and patching of potholes. The DPW staff blocks catch basins during the course of work to prevent pollutants (such as saw cutting fluids) from reaching nearby structures. Potential pollutants are not expected to be discharged from this operation and maintenance activity with proper preventative procedures.

Large scale sidewalk removal and replacement, along with curb and gutter replacement is done in conjunction with road or utility projects and are contracted out and are part of the Contractors

agreements. Contractors are provided information in bid documents and/or preconstruction meetings regarding BMPs associated with preventing pollutants from reaching catch basins and water bodies. Concrete washout from cement trucks is limited to single sites, away from catch basins and water bodies.

Municipal Operations and Maintenance Activity Assessment

The Village of Vicksburg will assess on an annual basis its municipal operation and maintenance activities, related to roads, parking lots, and sidewalk maintenance; cold water operations; and vehicle washing and maintenance of municipal owned vehicles. The assessment shall identify all pollutants that could be discharged from each O&M activity. The Village shall implement BMPs and/or procedures to prevent or reduce pollutant run-off. If current practices are determined to be ineffective in preventing or reducing pollutant run-off, the Village will update or revise its existing BMPs O&M procedures to an effective BMPs method or activity within 30 days of determine current procedures are ineffective.

MANAGING VEGETATABLE PROPERTIES

The Village does not apply fertilizer or pesticides to any Village-owned lawn except for this golf course. Also, at these locations and grass clippings are mulched in place, not bagged. In the event a pesticide is required, the Village only uses ready-to-use products from the original container.

The golf course complies with Public Act 299 of 2010 that restrict the application of fertilizers with available phosphate. Related to the golf course, a summary of PA 299 does the following:

- Prohibits the application of any fertilizer that is labeled as containing available phosphate (P2O5) to turf, unless an exception applies.
- Allows, as general exceptions, the application of a phosphate fertilizer to turf in any of the following circumstances: (1) when a test conducted within the preceding three years by a laboratory that follows recognized national standards has shown a need for it; (2) when the turf is in its first growing season; or (3) when the fertilizer is finished sewage sludge, organic manure, or manipulated manure, and it is applied at a rate of not more than 0.25 pounds of phosphorus per 1,000 square feet.
- Allows the application of phosphate fertilizer to a golf course in any of the following circumstances: (1) the golf course has been certified after its staff have completed an approved training course (2) a test has shown the need for it and the fertilizer is applied at an allowed rate (3) the turf is in its first growing season and the fertilizer is applied at an allowed rate.
- Prohibits the application of any fertilizer on turf located within 15 feet of surface water, unless there is a vegetative buffer between the turf and surface water, or certain equipment.

CONTRACTOR REQUIREMENTS AND OVERSITE

Contractors are hired by the Village on an as-needed basis for street sweeping, catch basin cleaning and less frequently for sidewalk and curb and gutter construction. These services that are contracted-out with vendors require records to be retained for verification that the waste was disposed of properly. Contractors are required to comply with EGLE’s “Catch Basin Cleaning Activities Guidance Document” and operate equipment according to the manufacturer’s operating instructions and to protect water quality. Contractors are provided information in bid documents and/or preconstruction meetings regarding disposal of debris from catch basin and storm pipe cleaning, or street sweeping.

EMPLOYEE TRAINING

The Village educates Public Employees and Contractors regarding Pollution Prevention and Good Housekeeping BMPs. Specifically, the Village provides employee training, which may consist of DVD, You-Tube Videos, off-site workshop, in-house training, or new employee orientation. The schedule for this training is the existing employees are trained once per permit cycle, and new employees have one (1) training event within 1-year of employment. Office staff is trained on the basic awareness of the program and general overview. DPW is generally trained in vehicle fueling, salt and winter operations, vehicle washing and maintenance. Seasonal staff (generally limited to lawn mowing) is educated about fertilizers, pesticides, vehicle fueling, and equipment maintenance.

TABLE 5

Table 5 shows the overall storm water pollution prevention activities of the Permittee and outlines the overall Pollution Prevention Program Elements (i.e. MS4 owner/operator best management practices (BMP) for system operation and maintenance).

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure shall be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Table 5 – POLLUTION PREVENTION & GOOD HOUSEKEEPING

**STORM WATER MANAGEMENT PROGRAM (SWMP)
PROGRAM ELEMENTS, TASKS AND DELIVERABLES**

POLLUTION PREVENTION & GOOD HOUSEKEEPING FOR MUNICIPAL OPERATION - MS4 OWNER/OPERATOR BMP's (Operation & Maintenance Program Elements)					
Task	Methodology	Time Table		Evaluation/ Measured Element	Measurable Goals
		Implementation	Evaluation		
(a) maintenance activities, maintenance schedules, and inspection procedures for storm water structural controls to reduce pollutants (including floatables) in discharges from our permitted separate storm water drainage system					
Evaluate storm water structural controls, Village owned infiltration areas / retention ponds, and Storm Treatment Units.	Visually observe catch basin's sediment traps to assess if maintenance is required.	Approximately 1/3 of all catch basins annually	Annually	Number of Catch Basins Observed	All catch basins observed every 3 years
	Visually observe infiltration areas/ retention ponds to verify they are functioning as intended. Cleaning needs and any significant erosion or infrastructure wear or damage is reported to the Village's DPW Supervisor or VCS Facility Manager for follow up	Annually – All infiltration areas / retention ponds	Annually	Infiltration Areas / retention ponds are visually inspected while they are mowed several times per year.	All infiltration areas / retention ponds are observed annually
	Visually observe Stormwater Treatment Units (STUs) to assess if maintenance is required. Cleaning needs is reported to the VCS Facility Manager for follow up.	Annually – All Stormwater Treatment Units (STUs)	Annually	Stormwater Treatment Units (STUs) are visually inspected	All Stormwater Treatment Units (STUs) are observed annually
Maintenance of storm water structural controls.	Removal of sedimentation and floatables from catch basin sedimentation traps via contracted service.	As-Needed	Annually	Depth of sediment exceeds 1/3 of sump depth	100% of catch basins found to contain excessive sedimentation to be cleaned within 6 months.
	Restore erosion issues within infiltration areas	As-Needed	At time of Mowing	Case-by-case, based on visual observation during mowing of areas	100% of the Village's infiltration areas / retention ponds are stabilized and show no signs of significant erosion.
	Remove sedimentation from pond bottoms	As-Needed	Annually	Infiltration areas have stopped working properly. Sedimentation is covering 50% of the outfall pipe. Sedimentation exceeds 12 inches.	100% of the Village's infiltration areas / retention ponds are working properly and outfall pipe into the ponds are unobstructed.
	Removal of sedimentation and floatables from Stormwater Treatment Units (STUs) via contracted service.	As-Needed Based on yearly inspection	Annually	Sedimentation or floatables exceeds the manufacturer's recommendation for the Stormwater Treatment Units (STUs). Maximum duration of cleaning a STUs does not exceed 3 years.	All sedimentation and floatables have been removed from the Stormwater Treatment Units (STUs) within the last 3 years (maximum duration) or has had all sedimentation and floatables removed when STU's capacity exceeds the manufacturer's recommendation.

POLLUTION PREVENTION & GOOD HOUSEKEEPING FOR MUNICIPAL OPERATION - MS4 OWNER/OPERATOR BMP's (Operation & Maintenance Program Elements)					
Task	Methodology	Time Table		Evaluation/ Measured Element	Measurable Goals
		Implementation	Evaluation		
(b) controls for reducing or eliminating the discharges of pollutants from streets, roads, highways and parking lots, and maintenance garages					
Ensure that pollutants are not disposed into surface waters	DPW procedures for pavement sweeping. Street sweeping is done throughout the Village's curbed streets as needed (twice per year), with sweepings taken to a landfill. Certain areas are swept more frequently, as needed. Debris is placed directly into a dump truck, with no dewatering.	On-going	Annually	records of receipts from the landfill; Track amount if sedimentation collected and the frequency of streets sweeping	Achieving the recommended street sweeping frequency to minimize debris from entering surface water (i.e. twice per year on curb and gutter streets) city-wide, more frequency in targeted areas) No Citizen complaints which would require street sweeping.
	DPW procedures for - snow and ice removal operations. Salt trucks are calibrated based on weather conditions. The preferred practice is to avoid discharge of plowed snow into waters of the state, due to the associated pollutants. The Village stockpiles snow within the grass areas at the former Mill site.	On-going	Annually	Salt trucks are calibrated based on weather conditions. The amount of salt used is tracked only on an annual basis.	100% of Staff Conformance to procedures
	Maintenance vehicles and School Bus washing	On-going	Annually	Vehicles wash in wash bay with floor drain connected to sanitary sewer	100% of vehicles washed occur at in approved washing site.
	Maintenance vehicles and School Bus maintenance	On-going	Annually	Vehicles maintained in workshop type bay or shop with floor drain connected to sanitary sewer	100% of vehicles repaired / maintained at approved site.
	Fueling of maintenance vehicles and equipment	On-going	Annually	Vehicles and equipment are fueled at a public fueling station. All employees are instructed to stay by and monitor their vehicles when fueling	No fuel spills entered the storm system
	Fueling of school buses	On-going	Annually	School buses are fueled at school fueling area and/or via mobile fuel tanker truck. Bus drivers and/or fuel tanker operator visual observe the fueling operation. Bus drivers and/or fuel tanker operator knows where fuel spill kits are located and how to use them.	No fuel spills entered the storm system
	DPW yard is maintained and no tracking of sedimentation is found on the roadway area	On-going	Annually	No sedimentation is found on driveway area. Sedimentation to be swept to prevent tracking onto roadway.	No tracking of sedimentation occurs from DPW yard

POLLUTION PREVENTION & GOOD HOUSEKEEPING FOR MUNICIPAL OPERATION - MS4 OWNER/OPERATOR BMP's (Operation & Maintenance Program Elements)					
Task	Methodology	Time Table		Evaluation/ Measured Element	Measurable Goals
		Implementation	Evaluation		
	<u>Administrative Procedures</u> Office staff is trained on the basic awareness of the program. DPW is generally trained in vehicle fueling, salt and winter operations, vehicle washing and maintenance. Seasonal staff (generally limited to lawn mowing) is educated about fertilizers, pesticides, vehicle fueling, and equipment maintenance.	Existing employees – trained 1 per Permit Cycle New Employees – Trained during 1 year of employment	Annually	Training attendance records	All applicable staff trained according to the training schedule with the appropriate knowledge
(c) procedures for the proper disposal of operation and maintenance waste from the permitted separate storm water drainage system (dredge spoil, accumulated sediments, floatables, and other debris)					
Ensure that pollutants are not disposed into surface waters	Collected catch basin sediments shall be contracted to a responsible party. Sediments and water shall be tested and disposed of properly in a licensed Type II municipal landfill unless contaminated then sediment shall be disposed of properly.	On-going	Annually	Collected/ tabulated data Cleaning the inside of the catch basin is done as needed, and is performed by a contractor. Records in the form of waste manifests, which contain the volume of waste and disposal location.	100% of sedimentation tested and disposed of properly
	Street Sweeping debris is disposed of properly in a licensed Type II municipal landfill by contracted service provider.	As-Needed	Annually	Village contracts out with outside services with contract language or specifications for how to properly dispose of materials.	Documentation that all debris was properly disposed.
	Dredged material and/or accumulated sediments found within retention ponds / infiltration areas is stabilized on site adjacent to infiltration areas	As-Needed	Annually	90% of sediment is removed for infiltration / pond areas and 100% properly stabilized on site within 14 days.	Infiltration areas / retention ponds function properly and all material from dredging operation is stabilized.
(d) ways to ensure that new flood management projects assess the impacts on the water quality of the receiving waters and, whenever possible, examine existing projects for incorporation of additional water quality protection devices or practices					
Properly design, engineer and permit new flood management projects.	Permittee initiated flood control projects will include provisions to reduce pollutants to water bodies to maximize extent practicable by including such criteria in all RFP's for flood control engineering services. Performance Standard's requirements also apply to sites under the control of public agencies such as schools, Federal and State governmental facilities, Road Commission of Kalamazoo County, Village of Vicksburg, a designated County Drain, and other entities that might not otherwise be subject to site plan review procedures and requirements as set forth in other sections of the Village's codified ordinances. When the Village is notified of a project or potential project by an agency within the Village limits that does not require site plan review, the Village will provide the agency written communications and a copy of the Village's Performance Standards and also request reviewing the proposed plans to provide input for the agency to implement such Standards.	On-going through site plan review	Annually	Track and compare the number of flood control projects that include water quality criteria	Utilizing new technologies to reduce pollutants in storm water All new projects implement Village Performance Standards for water quantity
	Examine existing water quantity structures for incorporation of additional water quality protection devices or practices.	Consider when such structures are scheduled for major repair or replacement	Annually	New technologies are considered when planning for major repair or replacement of existing structures.	All major repaired or replacement of existing storm quantity water structures, consider potential incorporation of new technology for water quality features.

POLLUTION PREVENTION & GOOD HOUSEKEEPING FOR MUNICIPAL OPERATION - MS4 OWNER/OPERATOR BMP's (Operation & Maintenance Program Elements)					
Task	Methodology	Time Table		Evaluation/ Measured Element	Measurable Goals
		Implementation	Evaluation		
(e) Implementation of controls to reduce the discharge of pollutants related to application of pesticides, herbicides, and fertilizers applied in our permitted jurisdiction.					
Proper use of lawn chemicals and pesticides.	Use a phosphorus-free fertilizer on Village parks, lawn areas, VCS property, and other areas. The Village currently does not use pesticides within their community.	On-going	Annually	If the Village or VCS applies fertilizer, what type of fertilizer was used.	All areas that the Village or VCS apply fertilizer, a phosphorus-free fertilizer are used.
	Use fertilizer in compliance with PA 299 of 2010 at the Village owned golf course. Pesticides applications are done in accordance to the Michigan Department of Agriculture and Rural Development (MDARD) at the Village owned golf course	On-going	Annually	Application of phosphate fertilizer only in following circumstances: (1) the golf course has been certified after its staff have completed an approved training course (2) a test has shown the need for it and the fertilizer is applied at an allowed rate (3) the turf is in its first growing season and the fertilizer is applied at an allowed rate. Prohibits the application of any fertilizer on turf located within 15 feet of surface water, unless there is a vegetative buffer between the turf and surface water, or certain equipment.	Compliance with PA 299 of 2010. Compliance with MDARD. A golf course person is licensed by the State of Michigan for pesticides. Angels Crossing golf course is certified by the Michigan Turfgrass Environmental Stewardship Program

CATCH BASIN CLEANING ACTIVITIES

GUIDANCE

INTRODUCTION

Catch basins are included in storm sewer system designs as a best management practice to remove pollutants such as gravel, sand, oils, and organic material carried by storm water runoff. Catch basins are designed to capture the pollutants in a sump, which may vary in depth depending on the design. The solids captured in the sump may have elevated concentrations of metals from street runoff or drainage from industrial, commercial, and residential properties. In order to maintain the effectiveness of the catch basin, the sump must be regularly inspected and cleaned out. The Water Resources Division (WRD) and Materials Management Division (MMD) of the Michigan Department of Environment, Great Lakes, and Energy's (EGLE) oversee environmental regulations pertaining to this activity. The Michigan Occupational Safety and Health Administration (**MIOSHA**) within the Department of Labor and Economic Opportunity oversees confined space entry and other worker health and safety standards.

Waste generated from catch basin cleaning activities and discharged back into the storm sewer system is unauthorized per **Part 31, Water Resources Protection (Part 31) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA)** and is therefore illegal. The combined solid and liquid waste stream from cleaning storm sewers systems, including catch basin sumps, is legally defined as "liquid industrial by-product" pursuant to **Part 121, Liquid Industrial By-Products (Part 121) of NREPA**. If an environmental spill were captured by a storm sewer system, the material in the storm sewer system could be a hazardous waste pursuant to the **Part 111, Hazardous Waste Management (Part 111) of the NREPA** and subject to additional management requirements.

If the storm sewer system is found to contain contaminants or abandoned waste materials, report the details to EGLE by calling the **Pollution Emergency Alert System** at 800-292-4706.

VISUAL INSPECTION

When cleaning out catch basin sumps, it is important to conduct a visual inspection prior to the cleaning. This is necessary to ensure the water in the sump has not been contaminated and qualifies to be managed as a liquid industrial by-product. The visual inspection is important for worker safety and to ensure proper management of the material once it is removed from the catch basin sump. If contamination is expected based on a visual inspection (visible sheen, discoloration, turbidity, obvious odor, etc.), a grab sample should be collected and analyzed

before handling the materials and generating a waste. While waiting for the sample analysis, efforts to prevent stormwater from entering the storm sewer system should be taken. For additional details on performing visual inspections, see the U.S. Environmental Protection Agency's [Storm Water Management Fact Sheet on Visual Inspections](#). For additional details on sampling and determining if a material is hazardous or not, please see the EGLE [Waste Characterization Guidance](#).

HANDLING THE LIQUID INDUSTRIAL BY-PRODUCT

The following are options for handling liquid industrial by-products generated from catch basin cleaning activities:

1. Have the liquid industrial by-product transported to drying beds to separate the solids and liquids. This is usually performed at a publicly-owned treatment plant or at a privately-owned permitted facility where the liquid portion of the waste stream is separated from the solids and treated prior to discharge. Once dry, the solids should be disposed in a licensed solid waste landfill in accordance with [Part 115](#), Solid Waste Management, of the NREPA.
2. Request permission from the local wastewater treatment plant operator to discharge the combined solid/liquid waste into the sanitary system. Most treatment plants will require pre-treatment prior to the discharge. All applicable local ordinance provisions must be followed.
3. When conducting catch basin cleaning activities where the above options are not available, the following method can be used after the water in the sump is confirmed to be non-contaminated.
 - Using a sump pump, or any other pumping mechanism, remove the majority of water in the sump of the basin without disturbing the solid material below. Do not use pumps connected to the vacuum truck's holding tank.
 - The clear water may then be directly discharged to one of the following:
 - Municipal sanitary sewer system (with prior approval from local sewer authority).
 - Application to the ground adjacent to the catch basin may be allowed on a site-specific basis. To learn more about this option, contact the WRD, Groundwater Discharge Program, at 517-290-9607.
 - The remaining liquid/solid in the sump should be collected with a vacuum truck and disposed of off-site in accordance with Parts 115 or 121.

The owner of the storm sewer system is responsible for meeting the liquid industrial by-products generator requirements under Part 121, even if the catch basins are cleaned out by a private contractor. See the [Liquid Industrial By-Products Generator Requirements](#) guidance for more details on the generator requirements for handling liquid industrial by-products.

Transporters of catch basin clean-out materials must be permitted and registered to transport liquid industrial by-products. Only local, state, and federal government agencies are exempt from

this and only when using their own vehicles and staff to do the work. Transporters needing a permit and registration must notify MMD of their transport activity and obtain a Site Identification Number using the [EQP5150 Form](#). There is a \$50 fee for a new Site Identification Number that can be paid for [on-line](#). For more details on transporter requirements, see the [Hazardous Materials Transportation Act, 1998 PA 138, as amended](#) and [Transporters Web page](#).

When the liquid by-product is transported over public roadways by local government officials or by contractors, a [shipping document](#) is required. The shipping document can be a bill of lading, non-hazardous waste manifest, uniform hazardous waste manifest, consolidated shipping document, etc. The shipping records must be kept by both the generator and the transporter for at least three years from the date of shipment. The portion of the vehicle that contains the liquid industrial by-product and/or containers used to transport the liquid industrial by-products must be kept closed except when adding or removing the waste, and the exteriors must be kept free of any liquid industrial by-products and residue. Containers must also be labeled with words describing their contents. For more details on shipping documents, including details on consolidated shipping documents, please see the [Liquid Industrial By-Products Frequently Asked Questions](#).

Facilities accepting liquid industrial by-products must meet the following operating requirements:

- They must notify MMD using the [EQP 5150 Form](#) that they are operating a liquid industrial by-product designated facility, obtain a Site Identification Number, and meet the operating requirements under [Part 121](#). This includes implementing practices to prevent unauthorized discharge of the liquid industrial by-products; keeping shipping, training, and other records; having emergency response plans; annually reporting the amount and types of liquid industrial by-products received; and reporting unauthorized release to the environment. If managing containers of liquid industrial, they must be kept closed, labeled, and protected from the weather, fire, physical damage, and vandals.
- The discharge of the liquids into the treatment plant that is permitted by the WRD must meet the wastewater treatment plant requirements. Any other discharge of the liquids would require a separate EGLE discharge permit.
- Any resulting solid waste from processing must be managed as specified under [Part 115](#) and disposed in a licensed solid waste landfill. Contact the landfill for the specific testing and disposal requirements needed to verify the waste is solid and not a hazardous waste. They will likely require specific tests or only accept data from specific laboratories. Ask the disposal company for a list of required tests, the purpose for the tests, approved testing methods, and acceptable laboratories. The solids cannot be used as fill on public or private property, or for any other use, unless they meet the conditions in Section 11504 of [Part 115](#) and can be demonstrated to be an inert material. EGLE relies upon the methods in the [Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria](#) for collecting representative samples.

See [Part 121](#) for more details on the operating requirements for liquid industrial by-products designated facilities.

Street sweeping activities are also subject to the above solid waste requirements. Street sweeping involves the use of specialized equipment to remove litter, loose gravel, soil, pet waste, vehicle debris and pollutants, dust, de-icing chemicals, and industrial debris from road surfaces. See the best management practices for [Street Sweeping](#).

WHERE TO GO FOR HELP

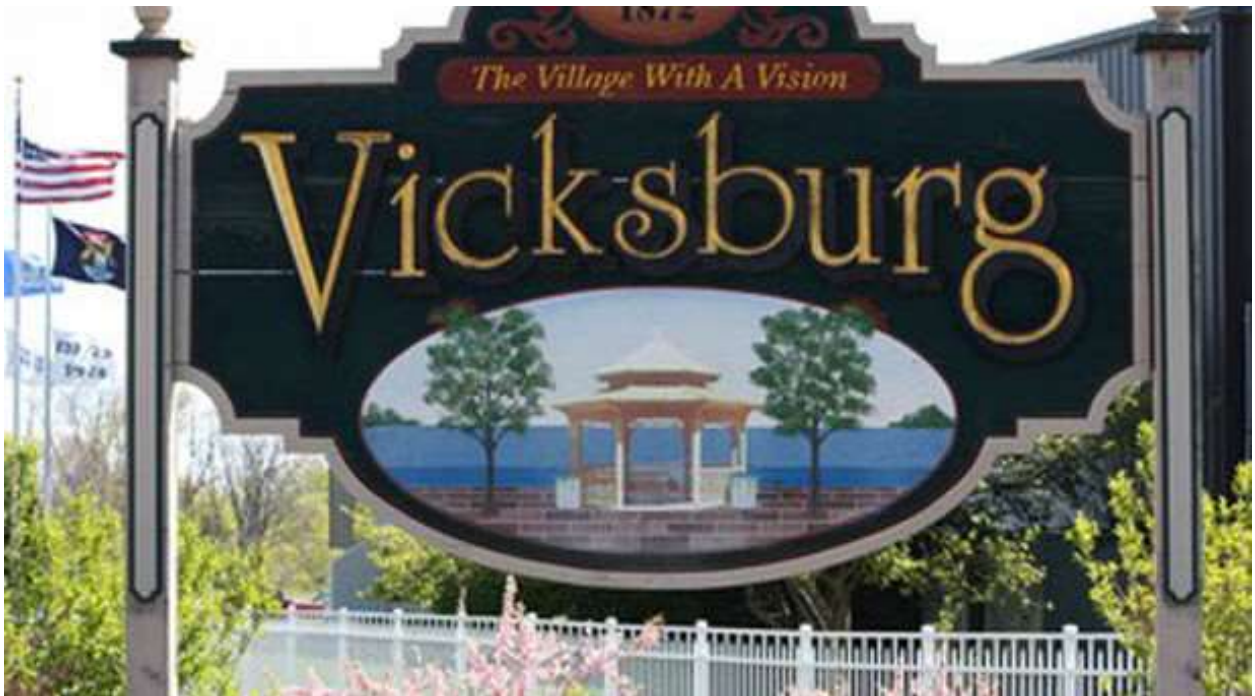
- Using the solids as fill or other use under Part 115:
[Jeff Spencer](#): 517-281-4411 | SpencerJ3@Michigan.gov
- Part 121 and Hazardous Materials Transportation Act transportation requirements
[Jeanette Noechel](#): 586-494-5091 | NoechelJ@Michigan.gov
- Managing waste under Part 31, or general questions regarding this guidance
[Christe Alwin](#): 517-420-1501 | AlwinC@Michigan.gov
- Groundwater permitting requirements
[Sherry Thelen](#): 517-290-9607 | ThelenS5@Michigan.gov
- Confined space entry requirements:
[MIOSHA Consultation, Education and Training Division](#): 800-866-4674

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Village of Vicksburg

Pollutant Incident Prevention Plan



February 2023

INTRODUCTION

The Village of Vicksburg is committed to protecting its residents, visitors, and the surrounding area from contamination of drinking water wells. As part of operations within the Village of Vicksburg, the Department of Public Works stores solid salt in quantities over 5 tons. As required by Part 5 Rules, Spillage of Oil and Polluting Material, promulgated pursuant to Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) (R 324-2001 through R 324.2009) the following plan has been developed to identify procedures needed to properly contain the salt and other polluting materials onsite, identify the procedures to address releases, and inventory salt storage.

The DPW Director will be the designated spill prevention coordinator. The Director may designate duties and responsibilities to a staff member as needed.

The Coordinator shall evaluate the pollution incident prevention plan every 3 years or after any release that requires implementation of the plan, whichever is more frequent. The Coordinator shall update the plan when facility personnel, processes, or procedures identified in the plan change or as otherwise necessary to maintain compliance with this rule. Upon preparation of an updated plan, the Coordinator shall re-notify the Department of Environmental Checklist and recertify compliance with these rules.

FACILITY IDENTIFICATION

Municipality:

Village of Vicksburg

Jim Mallery, Village Manager

126 N. Kalamazoo Avenue

Vicksburg, Michigan 49097

Phone: 269-649-1919

After hours emergency: 269-649-1144 (Village of Vicksburg Police Department)

Facility:

Department of Public Works

Randy Schippers, DPW Director

201 N. Main Street

Vicksburg, Michigan 49097

Phone: 269-649-1919

After hours emergency: 269-649-1144

Contacts:

Primary:

Randy Schippers

DPW Director

269-649-1919 Office

269-649-1919 DPW Office

269-217-7642 Cellular

rschippers@vikcksburgmi.org

Alternate:

Jim Mallery

Village Manager

269-649-1919 Office

269-365-8391

jmallery@vicksburgmi.org



Emergency Notification Procedures

In the event of an on-site emergency, the following procedures will be implemented for internal and external notification once any necessary emergency response personnel (911) are activated.

1. Staff members will be required to immediately notify the plan coordinator and their designee(s) through verbal communication.

The Coordinator/Designee shall:

1. Notify All Department of Public Works employees of the emergency and initial action plan;
2. Contact Michigan Department of Environmental Quality
 - a. PEAS Hotline 800-292-4706
 - b. District Office during business hours 269-3121-0548
3. U.S. Coastguard – National Response Center 800-424-8802
4. City of Kalamazoo County Wastewater Treatment Plant – Business Hours (269) 337-8701; After Hours (269) 337-8148.
5. Spill Cleanup Contractor, or consulting firm, or both
 - a. Clean Earth 269-381-2400
6. Other local, state, and/or federal agencies or entities that you may be required to report releases under other regulations.
7. If needed, local media utilizing the Village of Vicksburg public relations guidance. (Appendix A)

MATERIAL INVENTORY

1. Rock Salt; Sodium Chloride (NaCl); Chemical Abstract Service Number 7647-14-5

All Material Safety Data Sheets (MSDS) are located in the Department of Public Works office located at 201 N. Main, Vicksburg, Michigan 49097.

SPILL CONTROL AND CLEANUP PROCEDUES

In the event a spill occurs, a Spill or Release Report will be completed and filed with the appropriate agency. (Appendix B)

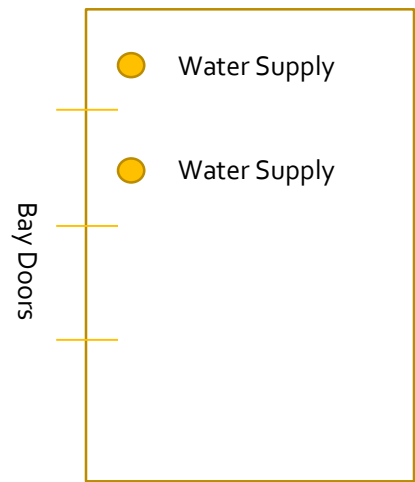
Inventory of spill control and clean-up equipment:

1. Vac Truck (1)
 2. Backhoe (2)
 3. Pumps (3)
 4. Shovels, Wheelbarrows, Brooms, Dust Pans (Multiple)
 5. Personnel Protective Equipment (Gloves, Safety Glasses, Hard Hats, Reflective Vests)
- Available in the DPW Main Office. Issued to each Public Works employee upon hire.

Spill control and clan-up equipment is stored in the Equipment Storage garage located adjacent to the Rock Salt Storage barn unless otherwise noted. In the event of a spill or release, the proper equipment will be utilized to control and clean-up the incident. If the incident is beyond the capabilities of the on-site equipment an outside spill contractor will be used. Recovered materials will be disposed of in accordance with local, state, and/or federal guidelines.

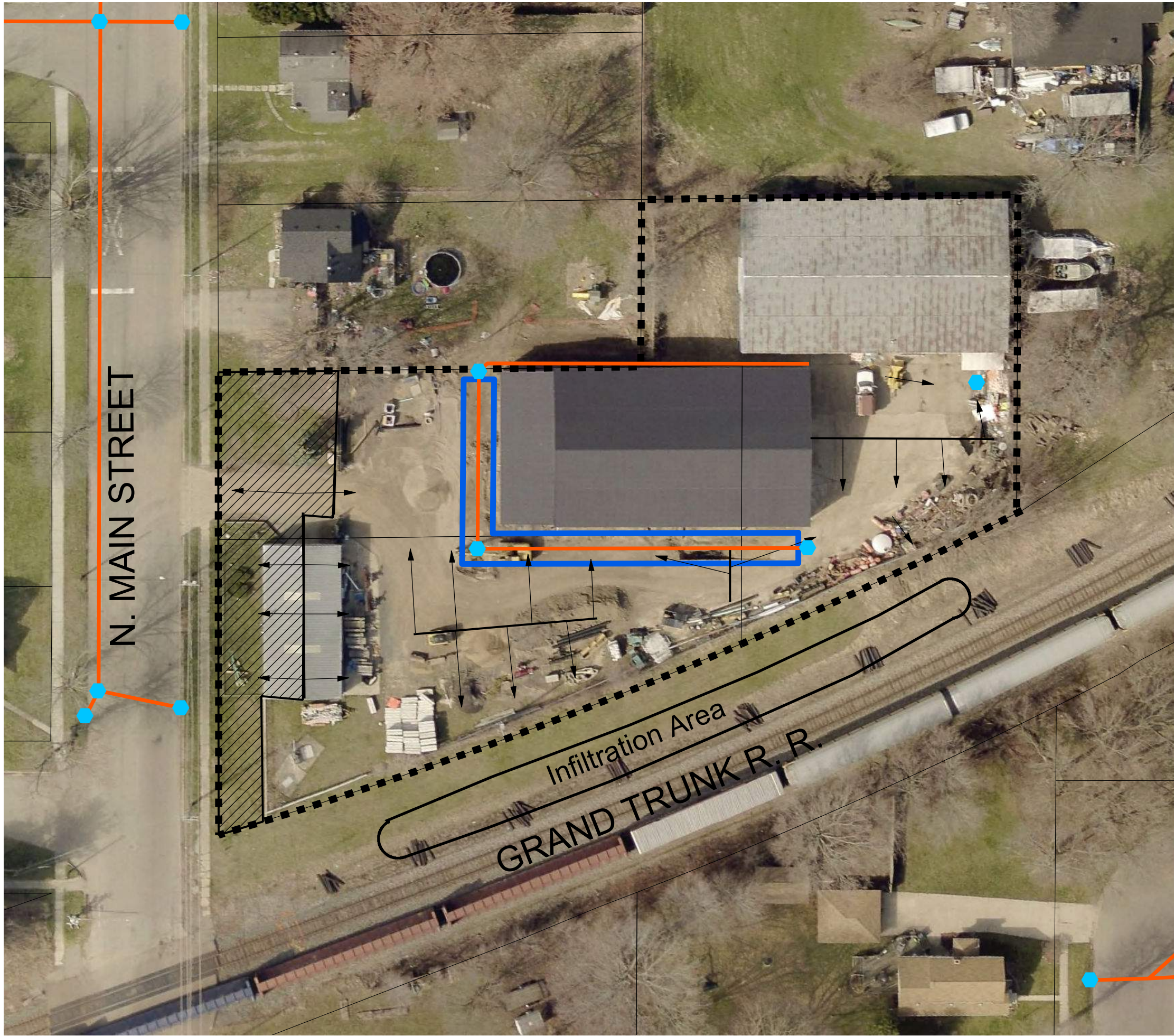
SITE PLAN

The DPW site is secured by a gate and security alarm system.



STORAGE FACILITY

The storage facility is pole barn construction with metal over wood walls. The roofing material is metal. The loading/unloading doors are garage doors. The floor is cement. The eaves run along the perimeter of the structure and drain into the parking lot. The driveway is gravel and the cement skirt runs around the structure. There are not any drains that need to be covered in the event of a spill.

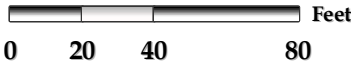


Village of Vicksburg

Northeast Corner of N. Main Street
and Grand Trunk Railroad
Kalamazoo County, Michigan

Vicksburg Storage
Yard Drainage Map

April 2023
2200189



Scale: 1" = 40'

LEGEND

- Storm Main
- Storm Structures
- Drainage Arrows
- Portion of Site Draining to MS4
- Underground Infiltration Area

FACILITY NAME:

*Vicksburg Community Schools
2017-2018*

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Department of Environmental Quality (DEQ)
Water Resources Division (WRD)
Storm Water Pollution Prevention Plan (SWPPP) Template
Template Revision Date: 3/12/2015

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12.0	Figure 1 – Facility Site Map
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16.0	Routine Inspection Form
17.0	Comprehensive Site Inspection Form
18.0	Visual Assessment Report Form
19.0	Employee Training Form
20.0	Annual SWPPP Review Report Form
21.0	DEQ Spill or Release Report

1.0 GENERAL FACILITY INFORMATION

Facility Information:

- Name of Facility: **Vicksburg Community Schools**
- Facility Address: **301 S. Kalamazoo Vicksburg, MI 49097**
- County: **Kalamazoo**
- Standard Industrial Classification (SIC) Code:
- Owner or Authorized Representative:

Facility Contact Information:

- Name: **Nancy Spicketts**
- Title: **Facility Director/**
- Telephone: **269.321.1027**
- Email Address: **nspicketts@vicksburgschools.org**
- Mailing Address: **301 S. Kalamazoo Vicksburg MI 49097**

Facility Contact information to be aware of:

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address, email address, if available, and telephone number of the new facility contact).

- a) The facility contact shall be (or a duly authorized representative of this person):
 - for a corporation, a principal executive officer of at least the level of vice president, or a designated representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the permit application or other NPDES form originates,
 - for a partnership, a general partner,
 - for a sole proprietorship, the proprietor, or
 - for a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager, or other duly authorized employee.
- b) A person is a duly authorized representative only if:
 - the authorization is made in writing to the Department by a person described in paragraph a. of this section; and
 - the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Certified Storm Water Operator Information:

- Name: **Jim Meyers**
- Certification Number & Expiration Date:
- Telephone: **269.254.6621**
- Email Address: **jmeyers@vicksburgmi.org**
- Is the Certified Operator an employee at the facility: ☐ Yes ☒ No
 - If the answer to the above question is "No" then include the Certified Operator's business name and mailing address: **Vicksburg DPW 126 North Kalamazoo, Vicksburg MI 49097**

Permit Information:

- General Permit Number:
- Certificate of Coverage (COC) or Individual Permit Number:
- COC or Individual Permit Effective Date of Coverage:
- Receiving Waters:
- Required Monitoring: ☐ Yes ☐ No
- Identify the Total Daily Maximum Load (TMDL) listed on COC:

Brief Industrial Activity Description:

If this facility is a seasonal facility describe the seasonal operation and what months the facility will be operating:

2.0 STORM WATER POLLUTION PREVENTION TEAM

The storm water pollution prevention team is responsible for developing, implementing, maintaining, and revising this SWPPP. The members of the team and their primary responsibilities (i.e. implementing, maintaining, record keeping, submitting reports, conducting inspections, employee training, conducting the annual compliance evaluation, testing for non-storm water discharges, signing the required certifications) are as follows:

Name & Title	Responsibility
Jim Meyers	Certified Operator
Nancy Spicketts	Facilities Director
Karen McKinstry	Transportation Director
<u>Space to list additional members and their responsibility if necessary:</u>	

3.0 SITE MAP

Preparing a site map or sketch is the first step in assessing the facility. See the DEQ Industrial Storm Water Certified Operator Training Manual for additional information.

The facility's site map includes all applicable items listed in the permit, which include:

- 1) Buildings and other permanent structures
- 2) Storage or disposal areas for significant materials
- 3) Secondary containment structures and descriptions of what they contain in the primary containment structures
- 4) Storm water discharge points (which include outfalls and points of discharge), numbered or otherwise labeled for reference
- 5) Location of storm water and non-storm water inlets (numbered or otherwise labeled for reference) contributing to each discharge point
- 6) Location of NPDES permitted discharges other than storm water
- 7) Outlines of the drainage areas contributing to each discharge point
- 8) Structural runoff controls or storm water treatment facilities
- 9) Areas of vegetation (with brief description such as lawn, old field, marsh, wooded, etc.)
- 10) Areas of exposed and/or erodible soils and gravel lots
- 11) Impervious surfaces (roofs, asphalt, concrete, etc.)
- 12) Name and location of receiving waters
- 13) Areas of known or suspected impacts on surface waters as designated under Par 201 (Environmental Response) of the NREPA.

SEE FIGURE 1 FOR FACILITY SITE MAP

4.0 SIGNIFICANT MATERIALS

Definition: Significant materials are any material which could degrade or impair water quality, including but not limited to:

- ✓ Raw Materials
- ✓ Fuels **Diesel**
- ✓ Solvents
- ✓ Detergents **Degreaser**
- ✓ Plastic pellets
- ✓ Finished materials (i.e. metallic products)

- ✓ Hazardous Substances designated under section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), see 40 CFR 372.65
- ✓ Any chemical the facility is required to report pursuant to section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA)
- ✓ Polluting Materials – Oil and any material, in solid or liquid form, identified as polluting material under the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code) **55 Gallon drum of oil. 55 gallon of DEF (Diesel Exhaust Fluid)**
- ✓ Hazardous Wastes as defined in Part 111 of the Michigan Act
- ✓ Fertilizers
- ✓ Pesticides
- ✓ Waste Products (i.e. ashes, slag, sludge, plant waste, animal waste)

During the significant materials identification phase, all sources of potential storm water contamination need to be identified. Both the inside and outside of the facility must be inventoried to determine the materials and practices that may be sources of contamination to storm water runoff. Note the identification phase must address residual contaminants which may be found on items stored outside.

4.1 Inventory of Exposed Significant Materials

The permit requires a general inventory of significant materials that could enter storm water. For each material listed the SWPPP shall include the ways in which each type of material has been or has reasonable potential to become exposed to storm water (e.g. spillage during handling; leaks from pipes, pumps, or vessels; contact with storage piles, contaminated materials or soils; waste handling and disposal; deposits from dust or overspray; etc.). In addition, the SWPPP must identify the inlet(s) spilled significant materials may enter and the discharge point(s) through which the spilled significant material may be discharged.

SEE TABLE 1 FOR SIGNIFICANT MATERIAL INVENTORY

4.2 Description of Industrial Activities & Significant Material Storage Areas

The permit requires industrial facilities to evaluate the reasonable potential for contribution of significant materials to storm water runoff from at least the following areas or activities:

- 1) Loading, unloading, and other material handling operations
- 2) Outdoor storage including secondary containment structures
- 3) Outdoor manufacturing or processing activities
- 4) Significant dust or particulate generating processes
- 5) Discharge from vents, stacks, and air emission controls
- 6) On-site waste disposal practices
- 7) Maintenance and cleaning of vehicles, machines, and equipment
- 8) Areas of exposed and/or erodible soils
- 9) Sites of Environmental Contamination listed under Part 201 (Environmental Response) of the NREPA
- 10) Areas of significant material residues
- 11) Areas where animals congregate (wild or domestic) and deposit wastes
- 12) Other areas where storm water may contact significant materials

For each applicable item, the permit requires a written description of the specific activity or storage area. Along with the written description of the activities or storage areas, a description of the significant materials associated with those items must be included.

SEE TABLE 1 FOR INDUSTRIAL ACTIVITY AND SIGNIFICANT MATERIAL STORAGE AREA DESCRIPTIONS

4.3 List of Significant Spills

The permit requires a list of significant spills and significant leaks of polluting materials that occurred at areas that are exposed to precipitation or that otherwise discharge to a point source at the facility. The listing shall

include spills that occurred over the three years prior to the effective date of a certificate of coverage authorizing discharge under the General Permit. The listing shall include the date, volume, exact location of release, and actions taken to clean up the material and/or prevent exposure to storm water runoff or contamination of surface waters of the state. Any release that occurs after the SWPPP has been developed shall be controlled in accordance with the SWPPP and is cause for the SWPPP to be updated as appropriate within 14 calendar days of obtaining knowledge of the spill or loss. If there have been no spills of polluting materials, state that in this section.

Question: Have there been any significant spills or significant leaks of polluting materials in the last 3 years?

☐ Yes x ☐ No

- If the answer above is "Yes" then input the applicable information in the table below:

Significant Spills and Significant Leaks of Polluting Materials Table		
Location & Date	Material & Volume	Corrective Actions Taken

4.4 Summary of Sampling Data

The permit requires a summary of existing storm water discharge sampling data (if available) describing pollutants in storm water discharges associated with industrial activity at the facility. The summary shall be accompanied by a description of the suspected sources of the pollutants detected. (If there is no storm water discharge sampling data, state that in this section.)

Question: Is there any storm water discharge sampling data available? ☐ Yes x ☐ No

- If the answer to the above question is "Yes" then summarize the information below and maintain the data with the SWPPP file.

Summary of Sampling Information:

4.5 Actions Taken to Investigate Illicit Connections

The permit requires that the SWPPP include a description of the actions taken to identify and eliminate illicit connections to the storm sewer system. All illicit connections to Municipal Separate Storm Sewer Systems (MS4s) or waters of the state should be permanently plugged or re-routed to the sanitary sewer system, in accordance with the authorization from the local Wastewater Treatment Plant. Any discharge from an illicit connection is a violation of the conditions of this permit.

Actions taken to investigate and eliminate any illicit connections to the storm sewer system:

5.0 NON-STRUCTURAL CONTROLS

Non-structural controls are practices that are relatively simple, fairly inexpensive, and applicable to a wide variety of industries or activities. Non-structural controls are intended to reduce the amount of pollution getting into the surface waters of the state and are generally implemented to address the problem at the source. They do not require any structural changes to the facility. These are typically everyday types of activities undertaken by employees at the facility. Many facilities may already have nonstructural controls in place for other reasons. The permit requires that the SWPPP shall, at a minimum, include each of the following non-structural controls:

5.1 Preventative Maintenance Program (Routine Inspection Program)

The permit requires written procedures and a schedule for routine preventive maintenance which includes inspection and maintenance of storm water management and control devices (e.g. cleaning of oil/water separators and catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters. Generally the focus of this permit requirement is on exterior items. A written report of the inspection and corrective actions shall be maintained on file and shall be retained for three years. See the DEQ Industrial Storm Water Certified Operator Training Manual for additional information.

The Routine Inspection Form is in Section 16.0.

If this requirement is addressed in other facility procedures, reference those procedures here:

Drive up to fuel pump

Use fueling gloves

Fuel Vehicle

Let spout finish dripping before putting it back

Replace Spout in it proper place and be sure that is secured

Know the procedure if there is a fuel spill

Dry material is in the cabinet in case of spill

In case of emergency and fuel won't shut off, go directly the red button on the outside of garage wall and push it and report it immediately to the office of mechanic.

Office or mechanic will contact RW Mercer.

5.2 Housekeeping Procedures (Routine Inspection Program)

The permit requires that the SWPPP include written procedures and a schedule to implement routine good housekeeping inspections to maintain a clean, orderly facility. Good housekeeping inspections are intended to reduce the potential for significant materials to come in contact with storm water. The routine good housekeeping inspections should be combined with the routine inspection for the preventative maintenance program. Generally the focus of this permit requirement is on exterior areas. A written report of the inspection and corrective actions shall be maintained on file and shall be retained for three years. See the DEQ Industrial Storm Water Certified Operator Training Manual for additional information.

The Routine Inspection Form is in Section 16.0.

If this requirement is addressed in other facility procedures, reference those procedures here:

The table below describes the Routine Inspection Program Procedures:

Routine Inspection Program Procedures Table		
Description of Area or Equipment Inspected	Tasks Performed During Inspection	Frequency of Inspection
Dumpster lids north of building	Secure dumpster lids	Monthly
Diesel fuel area west of building	Check to make sure fuel hasn't spilled	After bus fueling
Indoor garage area	Leaking oil	daily
Buses/Transportation Vehicles		
Spill Kits	Making sure they are stocked	monthly
Oil Tracking out of building	Soil inspection	weekly

5.3 Comprehensive Site Inspection & Visual Assessments of Storm Water Discharges

The permit requires written procedures and a schedule for comprehensive site inspection. The inspections shall include but not be limited to, the areas and equipment identified in the preventive maintenance program and good housekeeping procedures. The inspection shall also include a review of the routine preventive maintenance reports, good housekeeping inspections reports, and any other paperwork associated with the SWPPP. The comprehensive site inspection shall be conducted by the Industrial Storm Water Certified Operator quarterly. At a minimum one inspection shall be performed within each of the following quarters: January – March, April – June, July – September, and October – December.

The permittee may request Department approval of an alternate schedule for comprehensive site inspections. Such a request may be made if the permittee meets the following criteria: the permittee is in full compliance with the permit, the permittee has an acceptable SWPPP, the permittee has installed and/or implemented adequate structural controls at the facility, the permittee has all required inspection reports available at the facility, and the permittee has an Industrial Storm Water Certified Operator at the facility.

A report of the comprehensive site inspection results shall be prepared and retained for three years. The report shall include the following information:

- ✓ Date of the inspection
- ✓ Name(s), title(s), and certification number(s) of the personnel conducting the inspection
- ✓ Precipitation information (i.e. a description of recent rainfall or snow met events)
- ✓ All observations relating to the implementation of control measures
- ✓ Any required revisions to the SWPPP resulting from the inspection
- ✓ A certification stating the facility is in compliance with this permit and the SWPPP, or, if there are instances of noncompliance, they are identified

The Comprehensive Site Inspection Form is in Section 17.0.

Comprehensive site inspection schedule:

There are no previous files. We will use this as a baseline. June/December 2 times a year

Comprehensive site inspection written procedures:

The Industrial Storm Water Certified Operator will perform the comprehensive site inspections. All areas and items identified in Routine Inspection Procedures Table are included in the comprehensive site inspections. In addition all paper work associated with the routine inspections will be reviewed. The comprehensive site inspection report form will include a compliance certification statement. List any additional details (if necessary) related to the comprehensive site inspection procedures here:

Visual Assessments of Storm Water Discharges ****CHECK YOUR GENERAL PERMIT FOR APPLICABILITY****

The permit requires written procedures and a schedule for quarterly visual assessments of storm water discharges. The visual assessments shall be conducted by the Industrial Storm Water Certified Operator. At a minimum one visual assessment shall be performed within each of the following quarters: January – March, April – June, July – September, and October – December. If the Department has approved an alternate schedule for the comprehensive site inspection, the visual assessment may likewise be conducted in accordance with the same approved alternate schedule.

Visual assessment training/informational tutorials are available on the DEQ, WRD Industrial Storm Water webpage or by clicking on the following links:

- Part 1: https://www.youtube.com/watch?v=rhXbA1R_VZk&feature=youtu.be
- Part 2: https://www.youtube.com/watch?v=AdGziksz_g&feature=youtu.be
- Part 3: <https://www.youtube.com/watch?v=ZiajZM6Avlg&feature=youtu.be>

The Visual Assessment Report Form is in Section 18.0.

Visual Assessment schedule:

SEE SECTION 14.0 FOR THE VISUAL ASSESSMENT PROCEDURES

5.4 Material Handling & Spill Prevention / Clean-Up Procedures

The permit requires a description of material handling procedures and storage requirements for significant materials. Equipment and procedures for cleaning up spills shall be identified in the SWPPP and made available to the appropriate personnel. The procedures shall identify measures to prevent spilled materials or material residues on the outside of the containers from being discharged into storm water.

The SWPPP may include, by reference, requirements of either a Pollution Incident Prevention Plan (PIPP) prepared in accordance with the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code); a Hazardous Waste Contingency Plan (HWCP) prepared in accordance with 40 CFR 264 and 265 Subpart D, as required by Part 111 of the Michigan Act; or a Spill Prevention Control and Countermeasure (SPCC) plan prepared in accordance with 40 CFR 112.

Question: Does the facility have any additional material handling & spill / clean-up procedures on file in addition to the SWPPP? x ☐ No ☐ Yes

- If the answer is "No" complete the table below
- If the answer is "Yes" then reference the procedures and where they are located here and complete the table below as necessary:

Spills and leaks together are the largest industrial source of storm water pollution. Thus, this SWPPP specifies material handling procedures and storage requirements for significant materials. Equipment and procedures necessary for cleaning up spills and preventing the spilled materials from being discharged have also been identified. All employees have been made aware of the proper procedures. See the DEQ Industrial Storm Water Certified Operator Training Manual for additional information.

The DEQ, WRD Industrial Storm Water program spill report compliance assistance document should be kept with the SWPPP. Download the document from the DEQ, WRD Industrial Storm Water webpage or by clicking on the following link: http://www.michigan.gov/documents/deq/wrd-isw-permit_info-spill-reporting_398791_7.pdf

If material handling and spill prevention / clean-up procedures are not addressed in other facility documents (referenced above) then the table below needs to be completed:

Material Handling & Spill Prevention / Clean-up Procedures Table		
Potential Spill Area	Material Handling & Storage Procedures	Spill Response Procedures & Equipment
Fuel Area	Diesel Fuel/Use Drip Basin	Small spills oil dry will be applied
Indoor garage area	Oil/DEF	Oil Dry applied swept and put into dumpster

SEE TABLE 2 FOR SPILL KIT INVENTORY

5.5 Soil Erosion & Sedimentation Control Measures

The permit requires the identification of areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion. Areas commonly prone to soil erosion are: gravel lots, bare earth or gravel at material handling areas around storm water inlets, areas with concentrated storm water runoff into streams or ditches, and access roads over open streams or ditches. Control measures must be implemented in areas prone to soil erosion and sedimentation. More information on soil erosion and sedimentation control may be obtained from the DEQ, Water Resources Division District Office.

Question: Is dust suppression material used on site? ☐ Yes ☒ No

- If "Yes" then describe the actions implemented to prevent an unauthorized discharge to the storm sewer system or surface waters of the state:

Question: Are there areas of the site that are prone to soil erosion and/or sedimentation? ☐ Yes ☒ No

- If "Yes" then complete the table below:

Soil Erosion & Sedimentation Control Measures Table	
Areas Prone to Soil Erosion or Sedimentation	Control Measures Implemented
<i>Check for soil erosion around building</i>	<i>Regrade and reseed as needed</i>
Space to list additional areas of concerns and control measures if necessary:	

5.6 Employee Training Program

The permit requires a description of employee training programs have been implemented to inform appropriate personnel at all levels of responsibility of the components and goals of the SWPPP. Recent modifications to the General Permits have included a requirement for annual employee training. An employee training video is available at the DEQ, WRD, Industrial Storm Water webpage or by clicking on the following link:
<https://www.youtube.com/watch?v=IGqvsztguRA&feature=youtu.be>

Employee training will be a major component in ensuring the success of the facility's SWPPP. The more knowledgeable all employees are about the facility's SWPPP and what is expected of them, the greater the chance that the plan will be effective. The following is a description of the employee training programs to be implemented to inform appropriate personnel at all levels of responsibility of the components and goals of the SWPPP (i.e. good housekeeping practices, spill prevention and response procedures, waste minimization practices, informing customers of facility policies, etc.).

The Employee Training Form is in Section 19.0.

Employee Training Frequency: **Yearly**

Employee Training Program Description: **YouTube videos, webinars**

5.7 TMDL Requirements

The permit requires that if there is a Total Maximum Daily Load (TMDL) established by the Department for the receiving water, which restricts the discharge of any of the identified significant materials or constituents of those materials, then the SWPPP shall identify the level of control for those materials necessary to comply with the TMDL.

The TMDL means the amount of pollutant load a water body, such as a lake or stream, can assimilate and still meet water quality standards. If a receiving water body does not meet the water quality standards for a specific pollutant, the DEQ will establish the appropriate daily maximum load for that pollutant to allow the water body to again meet water quality standards. If a permitted facility is expected to discharge that specific pollutant in its storm water to that water body, the General Permit requires the facility to list actions it will take to meet that TMDL requirement.

The applicable TMDLs will be identified on the Certificate of Coverage (COC).

See the DEQ, WRD, Industrial Storm Water Webpage for additional TMDL information or click this link for the TMDL compliance assistance document: http://www.michigan.gov/documents/deq/wrd-isw-permit-info-tmdl_398790_7.pdf

Question: Is there a TMDL Requirement listed on the COC? ☐ Yes x ☒ No

- If the answer to the above question is "Yes" then complete the table below:

TMDL Pollutant:	Best Management Practices Implemented to reduce the discharge of the TMDL pollutant:
Space to list additional TMDL pollutants and BMPs implemented onsite if necessary:	

5.8 List of Significant Materials Still Present

The permit requires the identification of significant materials expected to be present in storm water discharges following implementation of non-structural preventative measures and source controls. Non-structural controls are used to reduce pollutants at the source before they can get into the storm water runoff. In some cases, these types of controls will not be enough. A list of significant materials expected to be present in storm water discharges after implementation of nonstructural controls must be included in the SWPPP. The materials listed below will be addressed through the use of structural controls. (If there will be no significant materials present after the implementation of non-structural controls, state that in this section.)

Significant Material	Location and Control Measure:	Impacted Inlet(s):	Impacted Discharge Point(s):
Gasoline/diesel area	At Fuel area	A	B
Space available to add addition information if necessary:			

6.0 STRUCTURAL CONTROLS

The permit requires that where implementation of non-structural controls does not control storm water discharges in accordance with water quality standards, the SWPPP shall provide a description of the location, function, and design criteria of structural controls for prevention and treatment.

Structural controls may be necessary:

- 1) To prevent uncontaminated storm water from contacting or being contacted by significant materials; or
- 2) If preventive measures are not feasible or are inadequate to keep significant materials at the site from contaminating storm water. Structural controls shall be used to treat, divert, isolate, recycle, reuse, or otherwise manage storm water in a manner that reduces the level of significant materials in the storm water and provides compliance with the Water Quality Standards

Examples of structural controls include the following:

- | | |
|-------------------------------------|---------------------------------|
| ✓ Signs and Labels | ✓ Paving |
| ✓ Safety Posts | ✓ Curbing |
| ✓ Fences | ✓ Drip Pans |
| ✓ Security Systems | ✓ Secondary Containment |
| ✓ Temporary and Permanent Coverings | ✓ Catch Basin Inserts |
| ✓ Storm Water Conveyances | ✓ Detention and Retention Ponds |
| ✓ Diversion Dikes | ✓ Vegetative Filters |
| ✓ Grading | ✓ Oil/Water Separators |

These types of controls are physical features that control and prevent storm water pollution. They can range from preventive measures to collection structures to treatment systems. Structural controls will typically require construction of a physical feature or barrier. Below is a description of the structural controls used at the facility. See the DEQ Industrial Storm Water Operator Training Manual for additional details on structural controls.

Question: Are structural control measures used at the facility? x ☐ No ☐ Yes

- If answer above is "Yes" then complete the appropriate information in the table below.

Structural Controls Used at the Facility		
Description of structural control(s)	Location of structural control(s)	Significant Materials intended to be managed by the structural control(s)
<i>There are control measures implemented at this time. We are developing a plan and will have it in place summer of 2018 (Below are samples)</i>		
<i>Signage</i>	<i>At Fuel Area</i>	<i>Gasoline/Diesel</i>
<i>Spill Clean up</i>	<i>At Fuel Area</i>	<i>Gasoline/diesel</i>
<i>Refuse</i>	<i>Dumpster Area</i>	<i>Refuse/Dumpster Lid</i>
<i>Fences</i>	<i>Perimeter around compound</i>	<i>Protective Barrier to public</i>
<i>Security</i>	<i>Locks on gates and building</i>	<i>Protective Barrier to public</i>

7.0 NON-STORM WATER DISCHARGES

The permit requires that all discharge locations be evaluated for the presence of non-storm water discharges. Any unauthorized storm water discharges must be eliminated, or covered under another NPDES permit.

Storm water shall be defined to include all of the following non-storm water discharges provided pollution prevention controls for the non-storm water component are identified in the SWPPP.

Question: Is any of the 10 non-storm water discharges listed below applicable to the facility? x ☐ No ☐ Yes

- If the answer is "Yes" then complete the appropriate sections of the table below:

Check the Applicable Non Storm Water Discharges at the Facility:		Pollution Prevention Controls Implemented:	Impacted Inlet(s):	Impacted Discharge Point(s):
☐	1. Discharges from fire hydrant flushing			
☐	2. Potable water sources including water line flushing			
☐	3. Water from fire system testing and fire fighting training without burned materials or chemical fire suppressants			
☐	4. Irrigation drainage			
☐	5. Lawn watering			
☐	6. Routine building wash-down that does not use detergents or other compounds			
☐	7. Pavement wash waters where contamination by toxic or hazardous materials has not occurred (unless all contamination by toxic or hazardous materials has been removed) and where detergents are not used			
☐	8. Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids			
☐	9. Uncontaminated ground water			
☐	10. Foundation or footing drains where flows are not contaminated with process materials such as solvents			

Discharges from fire fighting activities are authorized by the permit, but are exempted from the requirement to be identified in the SWPPP.

8.0 ANNUAL REVIEW

The permit requires that the permittee shall review the SWPPP annually after it is developed and maintain written summaries of the reviews. Based on the review, the permittee shall amend the SWPPP as needed to ensure continued compliance with the terms and conditions of the permit. The annual review is to be retained on site for three years and depending on the general permit is required to be submitted to the DEQ district office on or before January 10th of each year.

The Annual Review Report Form is in Section 20.0.

Specify the month the Annual SWPPP Review will be performed:

9.0 INDUSTRIAL STORM WATER CERTIFIED OPERATOR UPDATE

The permit requires that if the Industrial Storm Water Certified Operator is changed or an additional Industrial Storm Water Certified Operator is added, the permittee shall provide the name and certification number of the new Industrial Storm Water Certified Operator to the Department. If a facility has multiple Industrial Storm Water Certified Operators, the name and certification number of the Industrial Storm Water Certified Operators shall be included in the SWPPP.

10.0 RECORD KEEPING

The permit requires that the permittee shall maintain records of all SWPPP related inspection and maintenance activities. Records shall also be kept describing incidents such as spills or other discharges that can affect the quality of storm water runoff. All such records shall be retained for three years. The following records are required by the permit:

- ✓ Routine preventive maintenance inspection reports
- ✓ Routine good housekeeping inspection reports
- ✓ Comprehensive site inspection reports
- ✓ Documentation of visual assessments
- ✓ Employee training records
- ✓ Written summaries of the annual SWPPP review
- ✓ Short Term Storm Water Characterization Study data

11.0 SWPPP CERTIFICATION

The permit requires that the SWPPP shall be reviewed and signed by the Certified Storm Water Operator(s) and by either the permittee or an authorized representative in accordance with 40 CFR 122.22. The SWPPP shall be retained on-site at the facility which generates the storm water discharge.

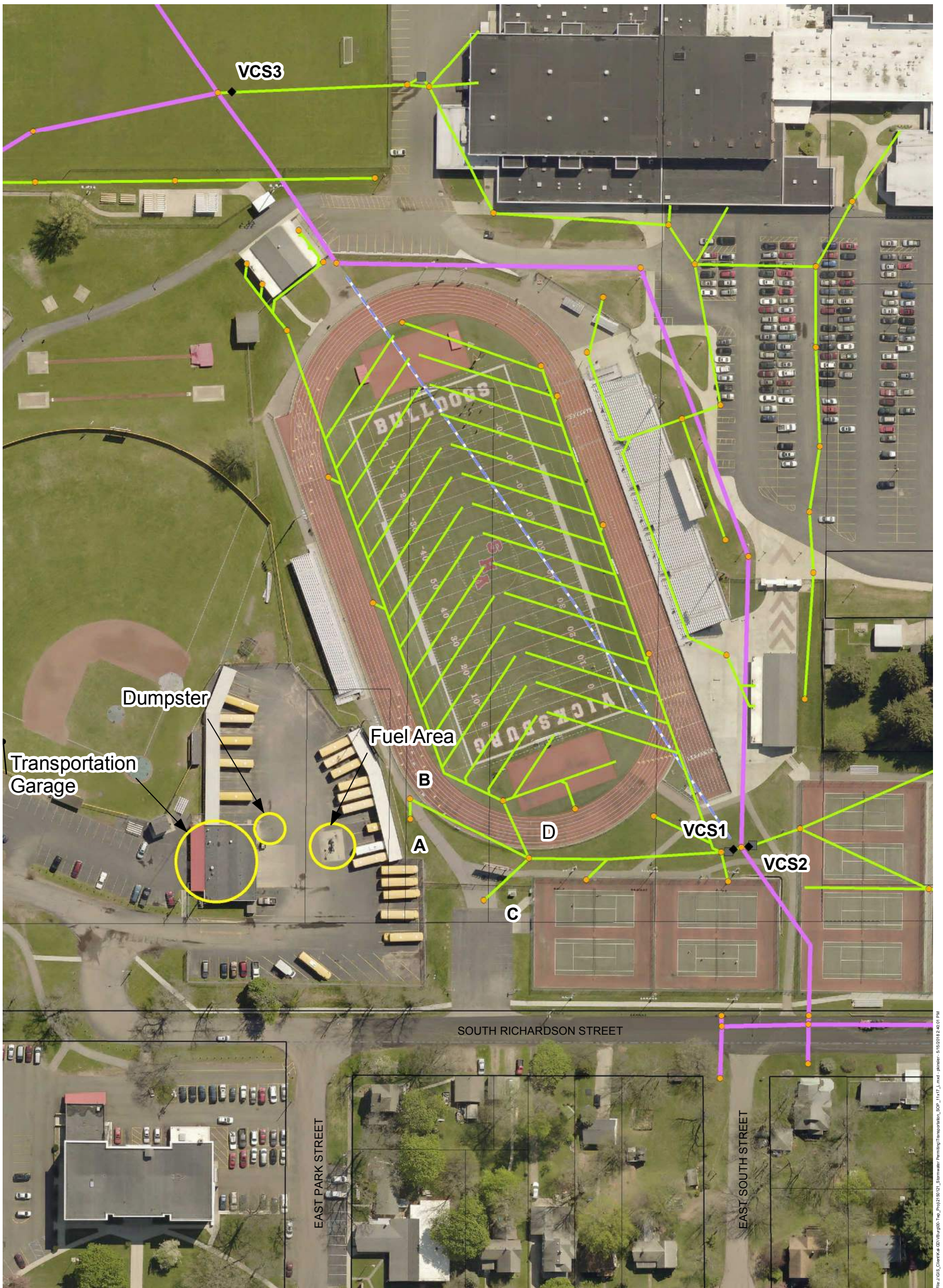
I certify under penalty of law that the storm water drainage system in this SWPPP has been tested or evaluated for the presence of non-storm water discharges either by me, or under my direction and supervision. I certify under penalty of law that this SWPPP has been developed in accordance with the General Permit and with good engineering practices. To the best of my knowledge and belief, the information submitted is true, accurate, and complete. At the time this plan was completed no unauthorized discharges were present. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Permittee or Authorized Representative
Printed Name & Title:
Signature & Date:

Industrial Storm Water Certified Operator
Printed Name & Certification Number:
Signature & Date:

Space to list additional Industrial Storm Water Certified Operators if Necessary	
Printed Name & Certification Number	Signature & Date

12.0 FIGURE 1 – FACILITY SITE MAP (Use separate sheet if necessary)



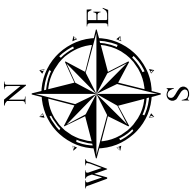
LEGEND

- ◆ Point of Discharge
- Storm Structure
- Storm Treatment Unit
- ◆ Outfall
- Storm Infiltration Area
- Vicksburg Community Schools
- Village of Vicksburg
- KCDC
- Abandoned

**Vicksburg Community Schools
Transportation Facility**
Located In
Village of Vicksburg, Kalamazoo County, Michigan

S. O. P.

May 2018



Phone: 269-372-1158
PN# 2150121

13.0 TABLE 1 – SIGNIFICANT MATERIAL INVENTORY AND DESCRIPTION OF INDUSTRIAL ACTIVITY OR SIGNIFICANT MATERIAL STORAGE AREAS

Instructions - Fill out the applicable areas or activities in the corresponding sections. Add more lines as needed. Once you have described the area or activity, list the significant materials that are associated with the areas or activities, the exposure methods, and evaluate the level of exposure. Once that is completed indicate the inlet(s) and discharge point(s) that would be impacted if significant materials were discharged from the areas or activities described.

Section Listed in General Permit	Storage Areas / Activity Areas	Significant Materials	Exposure Method	Reasonable Potential Evaluation (high, medium, low)	Inlet(s)	Discharge Point(s)
1) Loading, unloading, and other material handling operations	Fuel Area	Gasoline/Diesel	Spills	Med	A	B
2) Outdoor storage including secondary containment structures	N/A					
3) Outdoor manufacturing or processing activities	N/A					
4) Significant dust or particulate generating processes	N/A					
5) Discharge from vents, stacks, and air emission controls	N/A					
6) On-site waste disposal practices	Outdoor Dumpster	Refuse	Uncovered lid	Medium	A	B

13.0 TABLE 1 CONTINUED

Section Listed in General Permit	Storage Areas / Activity Areas	Significant Materials	Exposure Method	Reasonable Potential Evaluation (high, medium, low)	Inlet(s)	Discharge Point(s)
7) Maintenance and cleaning of vehicles, machines and equipment	Bus	Road Grime	Run off	High	A	B
8) Areas of exposed and/or erodible soils	N/A					
9) Sites of Environmental Contamination listed under Part 201	N/A					
10) Areas of significant material residues	N/A					
11) Areas where animals congregate (wild or domestic) and deposit wastes	N/A					
12) Other areas where storm water may contact significant materials	N/A					

14.0 VISUAL ASSESSMENT PROCEDURES

1. List the discharge point(s) (as indicated on the SWPPP map):
 - a) Is there substantially identical discharge points? ☐ Yes ☐ No
If "Yes" then complete a) and b) below, if "No" go to Number 2.
 - b) Describe the justification for the substantially identical discharge points determination?
 - c) List the schedule for alternating the substantially identical discharge points:
2. Describe the monitoring (sampling) location for each discharge point:
3. List the Qualified Personnel that will collect the water sample:
4. Training for the Qualified Personnel includes viewing the Visual Assessment Webinar and/or the 3 Visual Assessment Tutorials on the DEQ, WRD Industrial Storm Water webpage. Check the appropriate box below:
☐ Yes
☐ No, however a copy of the training materials used are included with this procedure.
5. List the sampling equipment used for the collecting the water sample(s):
6. Complete a) through c) below to describe the storm event information.
 - a) Describe how qualifying storm events are determined (including nature of the event):
 - b) Describe how each discharge point was evaluated to determine when a discharge would begin:
 - c) Describe what would constitute an adverse weather condition that would prevent sample collection:
7. Describe how the samples will be collected (Determine the timing sequence for water sample collection from the discharge points):
8. Describe the water sampling instructions that the Qualified Personnel will follow:
9. Describe how observations made by the Qualified Personnel will be documented during the discharge (include nature of the event):
10. Describe the sample storage procedures if applicable:
11. Describe the procedures the Industrial Storm Water Certified Operator will follow to perform the visual assessment(s) of the water sample(s):

12. List the name(s) of the Industrial Storm Water Certified Operator that will be performing the water sample visual assessment(s):
13. The DEQ, WRD Visual Assessment Report form should be used to document each water sample visual assessment. Check the appropriate box below:
- ☐ Yes, the DEQ, WRD Visual Assessment Report form is used.
- ☐ No, the DEQ, WRD Visual Assessment Report form is not used however the form being used to meet this requirement is included with this procedure.
14. Colored Photos shall be used to record the visual assessment(s). If other methods of recording observations will be used describe those methods:
15. All visual assessment documentation should be kept with the SWPPP file. If documentation will be kept at an alternate location state that location:
16. Describe the follow-up actions that will be taken if unusual characteristics are observed during the visual assessment(s):

15.0 TABLE 2 – SPILL KIT INVENTORY

List the spill response equipment that will be maintained in each location or locker (refer to MSDSs to determine recommended clean-up methods and supplies):

Person responsible for maintaining this inventory: **Karen McKinstry**
At this time there are limited spill kits. We will implement the following by 7.30.18

Locker number or location	Absorbents (pads, booms, kitty litter, etc.)	Tools (shovels, brooms, squeegees, etc.)	Personal Protective Equipment (rubber gloves, boots, masks, etc.)	Other Supplies (warning tape, labels, markers, MSDSs, etc.)
Next Fuel Pumps	Oil Dry	Shovel, Broom, Plastic Bags	Gloves	Warning Labels on fuel pumps.

Label each spill kit with the words "SPILL KIT" and the necessary emergency telephone number(s) or pager number(s) of persons to be contacted in case of a spill or leak that is beyond the training and equipment available on or near each spill locker:

Facility Responsible Person/Phone Number: **Karen McKinstry 269.321.1027**
 Spill Response Contractor (if any)/Phone Number: **RW Mercer 269.321.2280**
 DEQ District Office Phone Number: **269.567.3500**
 DEQ 24-Hour Emergency Spill Reporting Hot-Line: **1-800-292-4706 (PEAS Number)**

Stencil the following warning on each spill kit:

**"WARNING: NEVER HOSE DOWN A SPILL!
 CLEAN IT UP PROMPTLY AND DISPOSE OF THE WASTE PROPERLY."**

[illegible]

17.0 COMPREHENSIVE SITE INSPECTION FORM

Date:	Time:
-------	-------

Certified Operator Information	
Print Name:	Signature:

Precipitation Information	
Check the most appropriate box that represents the weather condition during the inspection:	
☐ Dry	☐ Rain ☐ Snow ☐ Other, explain:

Compliance Certification Statement	
Based on the results of this inspection the facility is in compliance with the general permit and the SWPPP:	
☐ Yes	☐ No, explain:

[illegible]

18.0 VISUAL ASSESSMENT REPORT FORM

Visual Assessment Sample Information		
Facility Name:		COC No. <u>or</u> NPDES Permit No:
Industrial Storm Water Certified Operator Name:		
Name / Title of person collecting sample if other than Cert. Operator:		
Date of Comprehensive Inspection:	Is this a substitute sample? ☐ No ☐ Yes Explain:	
Discharge Point # / Name:	Substantially Identical Discharge Point? ☐ No ☐ Yes List:	
Description of sample collection location:		
Date / Time Discharge Began:	Date / Time Sample Collected:	Date / Time Sample Examined:
For rain events - if sample was collected > 30 minutes from start of discharge, provide explanation:		
Snowmelt ☐	Rainfall ☐ Inches:	If rain event - previous storm ended > 72 hours prior to start of this event? ☐ No ☐ Yes

Observations	
Color: ☐ None ☐ Yes (describe):	Floating Solids: ☐ No ☐ Yes (describe):
Oil Films / Sheens: ☐ None ☐ Flecks ☐ Globs ☐ Sheen ☐ Other	
Describe appearance of film/sheen:	
Foam (gently shake sample): ☐ No ☐ Yes	Suspended Solids: ☐ No ☐ Yes (describe):
Settleable Solids: ☐ No ☐ Yes (describe):	
Odor: ☐ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Hydrocarbons ☐ Chemical ☐ Other (describe):	
Turbidity/Clarity: ☐ Clear ☐ Slightly Cloudy ☐ Cloudy ☐ Milky ☐ Other (describe):	
Picture of sample taken (required): ☐ No ☐ Yes Storage location:	
Receiving waters observed? ☐ N/A ☐ No ☐ Yes (describe):	

Follow-up:
Based on the visual observation, are there unnatural characteristics in the discharge (cloudiness, color, sheen, etc.)? ☐ No ☐ Yes
Potential sources of observed unnatural characteristics ☐ N/A <u>or</u> describe:
Implemented / recommended corrective action(s) ☐ N/A <u>or</u> describe:
Scheduled date for correction:

I certify that the above information is correct	
Certified Operator Signature	Date

RETAIN THIS FORM FOR A MINIMUM OF 3 YEARS

19.0 EMPLOYEE TRAINING FORM

Date of Session:

Trainer Information

Print:

Signature:

Training Session Information

Topics Covered:

[illegible]

20.0 ANNUAL SWPPP REVIEW REPORT FORM

Facility Information	
Designated Name:	Certificate of Coverage No. <u>or</u> Individual Permit No.:
Facility Address:	County:
Facility Contact Information	
Name:	Telephone No.:
Email Address:	Certification No.:
Backup Facility Contact Information	
Name:	Telephone No.:
Email Address:	Certification No.:
Industrial Storm Water Certified Operator Information	
Name:	Telephone No.:
Email Address:	Certification No.:
Space to list additional operators if applicable:	

The SWPPP Checklist on the DEQ, WRD Industrial Storm Water webpage should be used to review the facility's SWPPP and before the following 10 questions are completed.

1. Facility general information is current and accurate	Yes ☐	No ☐	
2. Site map is current and accurate	Yes ☐	No ☐	
3. Significant material inventory is current and accurate	Yes ☐	No ☐	
4. New exposures, processes and related controls have been documented appropriately in the SWPPP	Yes ☐	No ☐	NA ☐
5. Spills have been recorded and reported as appropriate	Yes ☐	No ☐	NA ☐
6. Employee SWPPP training was conducted and documented	Yes ☐	No ☐	
7. Records of routine preventative maintenance and housekeeping inspections are available in the SWPPP file	Yes ☐	No ☐	
8. Comprehensive site inspections have been completed, certified and filed in the SWPPP file	Yes ☐	No ☐	
9. Visual Assessments have been completed and the reports have been filed in the SWPPP file	Yes ☐	No ☐	NA ☐
10. Corrective actions noted in the inspection reports have been completed	Yes ☐	No ☐	
11. The SWPPP is compliant with the permit and has been reviewed and signed by the Certified Storm Water Operator and the permittee or designated representative	Yes ☐	No ☐	
Additional Comments:			

I certify that the above information is correct:	
Name:	Signature / Date:

SUBMIT THIS FORM TO THE DEQ, WRD DISTRICT OFFICE IDENTIFIED ON YOUR CERTIFICATE OF COVERAGE ON OR BEFORE **JANUARY 10TH** OF EACH YEAR

21.0 DEQ SPILL OR RELEASE REPORT



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

SPILL OR RELEASE REPORT

NOTE: Some regulations require a specific form to use and procedures to follow when reporting a release. Those forms and procedures **MUST** be used and followed if reporting under those regulations. This report form is to aid persons reporting releases under regulations that do not require a specific form. This report form is not required to be used. To report a release, some regulations require a facility to call the PEAS Hotline at 800-292-4706, or DEQ District Office that oversees the county where it occurred, and other regulating agencies and provide the following information. A follow-up written report may be required. Keep a copy of this report as documentation that the release was reported. If you prefer to submit this report electronically by FAX or e-mail, contact the regulating agency for the correct telephone number or e-mail address. See the DEQ website on Spill/Release Reporting for more reporting information.

Please print or type all information.

NAME AND TITLE OF PERSON SUBMITTING WRITTEN REPORT			TELEPHONE NUMBER (provide area code)		
NAME OF BUSINESS			RELEASE LOCATION (provide address if different than business, if known, and give directions to the spill location. Include nearest highway, town, road intersection, etc.)		
STREET ADDRESS					
CITY	STATE	ZIP CODE			
BUSINESS TELEPHONE NUMBER (provide area code)					
SITE IDENTIFICATION NUMBER AND OTHER IDENTIFYING NUMBERS (if applicable)			COUNTY	TOWNSHIP	TIER/RANGE/SECTION (if known)
RELEASE DATA. Complete all applicable categories. Check all the boxes that apply to the release. Provide the best available information regarding the release and its impacts. Attach additional pages if necessary.					
DATE & TIME OF RELEASE (if known) ____/____/____ ____am/pm	DATE & TIME OF DISCOVERY ____/____/____ ____am/pm	DURATION OF RELEASE (if known) ____ days ____ hours ____ minutes	TYPE OF INCIDENT ☐ Explosion ☐ Fire ☐ Leaking container ☐ Loading/unloading release ☐ Pipe/valve leak or rupture ☐ Vehicle accident ☐ Other _____		
MATERIAL RELEASED (Chemical or trade name) ☐ CHECK HERE IF ADDITIONAL MATERIALS LISTED ON ATTACHED PAGE.		CAS NUMBER or HAZARDOUS WASTE CODE	ESTIMATED QUANTITY RELEASED (indicate unit e.g. lbs, gals, cu ft or yds)	PHYSICAL STATE RELEASED (indicate if solid, liquid, or gas)	
FACTORS CONTRIBUTING TO RELEASE ☐ Equipment failure ☐ Operator error ☐ Faulty process design ☐ Training deficiencies ☐ Unusual weather conditions ☐ Other _____			SOURCE OF LOSS ☐ Container ☐ Railroad car ☐ Pipeline ☐ Ship ☐ Tank ☐ Tanker ☐ Truck ☐ Other _____		
TYPE OF MATERIAL RELEASED ☐ Agricultural: manure, pesticide, fertilizer ☐ Chemicals ☐ Flammable or combustible liquid ☐ Hazardous waste ☐ Liquid industrial waste ☐ Oil/petroleum products or waste ☐ Salt ☐ Sewage ☐ Other _____ ☐ Unknown		MATERIAL LISTED ON or DEFINED BY ☐ CAA Section 112(r) list (40 CFR Part 68) ☐ CERCLA Table 302.4 (40 CFR Part 302) ☐ EPCRA Extremely Hazardous Substance (40 CFR Part 355) ☐ Michigan Critical Materials Register or permit ☐ NREPA Part 31, Part 5 Rules polluting material ☐ NREPA Part 111 or RCRA hazardous waste ☐ NREPA Part 121 liquid industrial waste ☐ Other list _____ ☐ Unknown		IMMEDIATE ACTIONS TAKEN ☐ Containment ☐ Dilution ☐ Evacuation ☐ Hazard removal ☐ Neutralization ☐ System shut down ☐ Diversion of release to treatment ☐ Decontamination of persons or equipment ☐ Monitoring ☐ Other _____	
RELEASE REACHED ☐ Surface waters (include name of river, lake, drain involved) _____ Distance from spill location to surface water, in feet _____ ☐ Drain connected to sanitary sewer (include name of wastewater treatment plant and/or street drain, if known) _____ ☐ Drain connected to storm sewer (include name of drain or water body it discharges into, if known) _____ ☐ Groundwater (indicate if it is a known or suspected drinking water source and include name of aquifer, if known) _____ ☐ Soils (include type e.g. clay, sand, loam, etc.) _____ ☐ Ambient Air _____ ☐ Spill contained on impervious surface _____					

EXTENT OF INJURIES, IF ANY 	WAS ANYONE HOSPITALIZED? ☐ Yes NUMBER _____ HOSPITALIZED: _____ ☐ No	TOTAL NUMBER OF INJURIES TREATED ON-SITE: _____																																																																							
DESCRIBE THE INCIDENT, THE TYPE OF EQUIPMENT INVOLVED IN THE RELEASE, HOW THE VOLUME OF LOSS WAS DETERMINED, ALONG WITH ANY RESULTING ENVIRONMENTAL DAMAGE CAUSED BY THE RELEASE. IDENTIFY WHO IMMEDIATELY RESPONDED TO THE INCIDENT (own employees or contractor — include cleanup company name, contact person, and telephone number). ALSO IDENTIFY WHO DID FURTHER CLEANUP ACTIVITIES, IF PERFORMED OR KNOWN WHEN REPORT SUBMITTED ☐ CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED ON ATTACHED PAGE 																																																																									
ESTIMATED QUANTITY OF ANY RECOVERED MATERIALS AND A DESCRIPTION OF HOW THOSE MATERIALS WERE MANAGED (include disposal method if applicable) ☐ CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED ON ATTACHED PAGE 																																																																									
ASSESSMENT OF ACTUAL OR POTENTIAL HAZARDS TO HUMAN HEALTH (include known acute or immediate and chronic or delayed effects, and where appropriate, advice regarding medical attention necessary for exposed individuals.) ☐ CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED ON ATTACHED PAGE 																																																																									
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY NOTIFIED: INITIAL CONTACT BY: ☐ Telephone ☐ Fax ☐ Email ☐ Other DATE/TIME INITIAL CONTACT: _____ ☐ PEAS: 800-292-4706 Log Number Assigned _____ ☐ DEQ District or Field Office Divisions or Offices Contacted: <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">☐ Baraga</td> <td style="width: 33%;">☐ Gwinn</td> <td style="width: 33%;">☐ Air Quality</td> </tr> <tr> <td>☐ Bay City</td> <td>☐ Jackson</td> <td>☐ Land & Water Management</td> </tr> <tr> <td>☐ Cadillac</td> <td>☐ Kalamazoo</td> <td>☐ Office Geological Survey</td> </tr> <tr> <td>☐ Crystal Falls</td> <td>☐ Lansing</td> <td>☐ Remediation and Redevelopment</td> </tr> <tr> <td>☐ Detroit</td> <td>☐ Newberry</td> <td>☐ Waste and Hazardous Materials</td> </tr> <tr> <td>☐ Gaylord</td> <td>☐ Warren</td> <td></td> </tr> <tr> <td>☐ Grand Rapids</td> <td>☐ Wyoming</td> <td>☐ Water Bureau</td> </tr> </table> DEQ Office locations are subject to change NAME AND TITLE OF PERSON MAKING INITIAL REPORT: _____ DEQ STAFF CONTACTED & PHONE NUMBER: _____ _____	☐ Baraga	☐ Gwinn	☐ Air Quality	☐ Bay City	☐ Jackson	☐ Land & Water Management	☐ Cadillac	☐ Kalamazoo	☐ Office Geological Survey	☐ Crystal Falls	☐ Lansing	☐ Remediation and Redevelopment	☐ Detroit	☐ Newberry	☐ Waste and Hazardous Materials	☐ Gaylord	☐ Warren		☐ Grand Rapids	☐ Wyoming	☐ Water Bureau	OTHER ENTITIES NOTIFIED: <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">☐ National Response Center (NRC): 800-424-8802</td> <td style="width: 10%;">Date: _____</td> <td style="width: 20%;">Time: _____</td> </tr> <tr> <td>☐ US Coast Guard Office:</td> <td>_____</td> <td>_____</td> </tr> <tr> <td style="padding-left: 20px;">☐ Detroit ☐ Grand Haven ☐ Sault Ste. Marie</td> <td></td> <td></td> </tr> <tr> <td>☐ US Department of Transportation</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ US Environmental Protection Agency</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ 911 (or primary public safety answering point)</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Local Fire Department</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Local Police and/or State Police</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Local Emergency Planning Committee</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ State Emergency Response Commission via MI SARA Title III Program</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Wastewater Treatment Plant Authority</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Hazmat Team</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Local Health Department</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Department of Labor & Economic Growth MIOSHA</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Department of Labor & Economic Growth Fire Safety</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Michigan Department of Agriculture: 800-405-0101</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>☐ Other _____</td> <td>_____</td> <td>_____</td> </tr> </table> PERSON CONTACTED & PHONE NUMBER: _____ _____	☐ National Response Center (NRC): 800-424-8802	Date: _____	Time: _____	☐ US Coast Guard Office:	_____	_____	☐ Detroit ☐ Grand Haven ☐ Sault Ste. Marie			☐ US Department of Transportation	_____	_____	☐ US Environmental Protection Agency	_____	_____	☐ 911 (or primary public safety answering point)	_____	_____	☐ Local Fire Department	_____	_____	☐ Local Police and/or State Police	_____	_____	☐ Local Emergency Planning Committee	_____	_____	☐ State Emergency Response Commission via MI SARA Title III Program	_____	_____	☐ Wastewater Treatment Plant Authority	_____	_____	☐ Hazmat Team	_____	_____	☐ Local Health Department	_____	_____	☐ Department of Labor & Economic Growth MIOSHA	_____	_____	☐ Department of Labor & Economic Growth Fire Safety	_____	_____	☐ Michigan Department of Agriculture: 800-405-0101	_____	_____	☐ Other _____	_____	_____
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Chapter 12 – Total Maximum Daily Load (TMDL) Implementation Plan

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Total Maximum Daily Load (TMDL) Implementation Plan

BACKGROUND AND EFFORT

The Village of Vicksburg is not currently discharging to a body of water that has a TMDL. The Village discharges to Sunset Lake and Portage River of the St. Joseph River Watershed. If a TMDL is developed for these water bodies, this plan will be edited.

MONITORING

The Village will consider performing outfall monitoring and sampling at a minimum of 2 times during the permit cycle or at a frequency sufficient to determine if the BMPs are adequate in making progress toward achieving the TMDL pollutant load reduction if a TMDL is developed for these water bodies or may consider modeling in lieu of sampling.

OTHER

Any questions on this policy and procedure should be directed to the Storm Water Program Manager.

PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure will be reviewed on an annual basis by the Storm Water Program Manager for any updates to improve effectiveness.

Chapter 13 – Stormwater Management Ordinances (Chapter 398)

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Chapter 398

STORMWATER MANAGEMENT

ARTICLE I **General**

- § 398-1. Intent and purpose.
- § 398-2. Statutory authority; enforcement.
- § 398-3. Findings.
- § 398-4. Applicability and general provisions.
- § 398-5. Definitions.

ARTICLE II **Prohibitions and Allowable Discharges**

- § 398-6. Prohibited discharges.
- § 398-7. Prohibited illicit connections.
- § 398-8. Allowable discharges.
- § 398-9. Storage of hazardous or toxic materials in drainageway.

ARTICLE III **Inspection, Monitoring, Reporting and Recordkeeping**

- § 398-10. Inspection and sampling.
- § 398-11. Stormwater-monitoring facilities.
- § 398-12. Accidental discharges.
- § 398-13. Recordkeeping requirement.

ARTICLE IV **Performance and Design Standards**

- § 398-14. Responsibility to implement BMPs.
- § 398-15. Performance standards.

- § 398-16. Design standards.
- § 398-17. Hot spots properties.
- § 398-18. Contaminated properties.

ARTICLE V **Stormwater Management Plan and Post Construction**

- § 398-19. Stormwater management plan.
- § 398-20. Maintenance and repair of stormwater BMPs.

ARTICLE VI **Enforcement**

- § 398-21. Sanctions for violation.
- § 398-22. Failure to comply; completion.
- § 398-23. Emergency measures.
- § 398-24. Cost recovery for damage to stormwater drainage system.
- § 398-25. Collection of costs; lien.
- § 398-26. Suspension of access to stormwater drainage system.
- § 398-27. Appeals.
- § 398-28. Judicial relief.
- § 398-29. Civil infraction.
- § 398-30. Remedies not exclusive.
- § 398-31. Cumulative remedies.

ARTICLE VII **Interpretation**

- § 398-32. Interpretation of words and phrases.
- § 398-33. Catchline headings.

[HISTORY: Adopted by the Village Council of the Village of Vicksburg 2-17-2020 by Ord. No. 285. Amendments noted where applicable.]

ARTICLE I

General

§ 398-1. Intent and purpose.

- A. The purpose of this chapter is to protect the public health, safety and welfare of Village residents and to protect property values, quality of life, and natural systems relating to stormwater runoff control and management. The Village finds it is a matter of public concern and benefit to protect water bodies and properties within the Village and to reduce the future need for public expenditures relating to flooding, water quality, and stormwater system maintenance. Both the quality and quantity of stormwater runoff are a matter of public concern.
- B. It is also the purpose of this chapter to establish minimum stormwater management requirements and controls to accomplish, among others, the following objectives:
 - (1) To provide environmental protection to the waters of the state consistent with the State and Federal Clean Water Acts;
 - (2) To regulate the contribution of pollutants to the stormwater drainage system and natural water bodies by stormwater discharges by any user;
 - (3) To prohibit illicit discharges and connections to the stormwater drainage system and natural water bodies;
 - (4) To remove existing pollutants into stormwater and the degradation that said constituents may cause to the environment;
 - (5) To require permits for connections to the municipal separate storm sewer system (MS4);
 - (6) To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this chapter; and
 - (7) To provide appropriate remedies for failure to comply with this chapter.
- C. In addition to the requirements herein, a developer shall comply with the Village of Vicksburg construction requirements pertaining to stormwater sewer construction and stormwater drainage regulations.

§ 398-2. Statutory authority; enforcement.

- A. This chapter is adopted in accordance with the General Law Village Act, being MCLA § 61.12 et seq.; the Drain Code of 1956, as amended, being MCLA § 280.1 et seq.; the Land Division Act, as amended, being MCLA § 560.101 et seq.; the Revenue Bond Act, as amended, being MCLA § 141.101 et seq.; the Natural Resources and Environmental Protection Act, as amended, being MCLA § 324.101 et seq.; Section 401(p) of the Federal Water Pollution Control Act (also known as the Clean Water

Act), as amended, being 33 U.S.C. § 1342(p) and 40 CFR Parts 9, 122, 123 and 124; and other applicable state and federal laws.

- B. The Village shall administer, implement and enforce the provisions of this chapter. Any powers granted or duties imposed upon the Village may be delegated in writing by the Village Council of the Village of Vicksburg to persons or entities acting in the beneficial interest of or in the employ of the Village. That person shall be known as the Stormwater Protection Administrator.

§ 398-3. Findings.

The Village finds that stormwater regulation and management is a matter of public health, safety and welfare because:

- A. Water bodies, roadways, structures, and other property within and downstream of the Village are at times subjected to flooding.
- B. Flooding is a danger to the lives and property of the public and is also a danger to the natural resources of the Village and the region.
- C. Changes in land use alter the hydrologic response of watersheds, resulting in increased stormwater runoff rates and volumes, which further result in increased flooding, increased stream channel erosion, and increased sediment transport and deposition.
- D. Stormwater runoff produced by changes in land use contributes to increased quantities of water-borne pollutants.
- E. Illicit discharges contain pollutants that will significantly degrade the stream and Lake Michigan and water resources of the Village, thus threatening the health, safety and welfare of the citizenry.
- F. Illicit discharges enter the stormwater drainage system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system or spills connected by drain inlets).
- G. Establishing the measures for controlling illicit discharges and connections contained in this chapter and implementing the same will address many of the deleterious effects of illicit discharges.
- H. Any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to public health, safety and welfare and is declared and deemed a nuisance.

§ 398-4. Applicability and general provisions.

This chapter shall apply to all discharges entering the stormwater drainage system and natural water bodies generated on any developed and undeveloped lands within the Village.

§ 398-5. Definitions.

For the purpose of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section, unless the context in which they are used specifically indicates otherwise:

ONE-HUNDRED-YEAR STORM — That water occupation adjacent to a body of water which results from a storm event having a 1% probability of occurrence in any given year. Thus, a fifty-year storm has a 2% probability, a ten-year storm a 10% probability, etc.

AUTHORIZED ENFORCEMENT AGENCY — The Village of Vicksburg and/or any persons or agencies designated to act as the authorized enforcement agency by the Village Council of the Village of Vicksburg.

BEST MANAGEMENT PRACTICES (BMPs) — Structural devices or nonstructural practices that are designed to prevent pollutants from entering stormwater flows, to direct the flow of stormwater, or to treat polluted stormwater flows. BMPs may include, but shall not be limited to, those described in the Michigan Department of Environmental Quality "Guidebook of BMPs for Michigan Watersheds." Equivalent practices and design criteria that accomplish the purposes of this chapter (including, but not limited to, minimizing stormwater runoff and preventing the discharge of pollutants into stormwater) shall be as determined by the Village Engineer and, when applicable, the standards of the Kalamazoo County Drain Commissioner.

CLEAN WATER ACT — The Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq., as amended, and the applicable regulations promulgated thereunder.

DETENTION BASIN — A structure or facility, natural or artificial, which stores stormwater on a temporary basis and releases it at a predetermined rate. A detention basin may drain completely after a storm event, or it may be a pond with a fixed minimum water elevation between runoff events.

DISCHARGE — The introduction (intentionally or unintentionally, directly or indirectly) of any liquid, substance, pollutant or other material into a stormwater drainage system or natural water body.

DISCHARGE — The rate of flow or volume of water passing a given point; expressed as cubic feet per second.

DISCHARGE PERMIT — A permit issued by the owner of the municipal separate storm sewer system (MS4) to a user for a discharge into the MS4.

DISCHARGER — Any person or entity who directly or indirectly discharges stormwater from any premises or property. "Discharger" also includes any employee, officer, director, partner, contractor or other person who participates in, or is legally or factually responsible for, any act or omission that is, or results in, a violation of this chapter.

DISTURBED AREA — An area of land subject to the removal of vegetative cover and/or earthmoving activities.

DRAIN — Any and all conduits, facilities, measures, areas and structures that serve to convey, catch, hold, filter, store and/or receive stormwater or groundwater, either on a temporary or permanent basis.

DRAINAGE — The collection, conveyance or discharge of groundwater and/or surface water.

DRAINAGE SYSTEM — All facilities, areas, and structures which serve to convey, store, or receive stormwater, either on a temporary or permanent basis.

DRAINAGEWAY — A natural or artificial facility, area, or structure which conveys or transports stormwater runoff from one location to a different location. This may include a drain, water body or floodplain.

EARTH CHANGE — Any human activity which removes ground cover, changes the slope or contours of the land, or exposes the soil surface to the actions of wind and rain. Earth change includes, but is not limited to, any excavating, surface grading, filling, landscaping, or removal of vegetative roots.

EPA — The U.S. Environmental Protection Agency.

EROSION — The removal of soil particles from the land by the action of water, wind, ice, or other geological agents.

FLOODPLAIN — The area, usually low lands, adjoining the channel of a river, stream or watercourse or lake or other body of standing water, that has been or may be covered by floodwater.

GRADING — Any stripping, excavating, filling, and stockpiling of soil, or any combination thereof, and the land in its excavated or filled condition.

HAZARDOUS MATERIALS — Any solid, liquid, semisolid or gaseous substance or material that because of its quantity, quality, concentration or physical, chemical or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible illness or serious incapacitating but reversible illness, or may pose a substantial present or potential hazard to human health or the environment if improperly treated, stored, transported, disposed of, or otherwise managed.

ILLICIT CONNECTION — Any method or means or conduit for conveying an illicit discharge into a natural water body or a stormwater drainage system.

ILLICIT DISCHARGE — Any discharge to a water body or a stormwater drainage system that does not consist entirely of stormwater, that is not allowed by the terms of an NPDES permit, or that is not an allowable discharge, as defined by this chapter.

INFILTRATION — The percolation and movement of water downward into and through the soil column. The rate of this movement is expressed in inches per hour.

MDEQ — Michigan Department of Environmental Quality.

MS4 — Municipal separate storm sewer system, as defined by federal and state laws.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT — A permit issued by the EPA or a state under authority delegated pursuant to the Clean Water Act that allows the discharge of pollutants to waters of the United States.

NONSTORMWATER DISCHARGE — Any discharge to the stormwater drainage system or a water body that is not composed entirely of stormwater.

OFF-SITE FACILITY — Any portion of a stormwater management system which is located off the development site which it serves.

PERFORMANCE STANDARD — The technical standard or set of standards to be met. Performance standards may be periodically revised by the Village Council in response to state and federal regulatory requirements, changed scientific knowledge, or similar changed conditions and/or enhanced knowledge.

PERSON — An individual, firm, partnership, association, public or private corporation, public agency, instrumentality or any other legal entity.

POLLUTANT — Includes, but is not limited to, the following: any dredged spoil, solid waste, vehicle fluids, yard wastes, animal wastes, agricultural waste products, sediment, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological wastes, radioactive materials, hazardous materials, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal, commercial and agricultural waste, or any other contaminant or other substance defined as a pollutant under the Clean Water Act. "Pollutant" also includes properties or characteristics of water, including, but not limited to, pH, heat, TSS, turbidity, color, BOD, COD, toxicity and odor.

PREMISES — Any building, structure, lot, parcel of land or portion of land, or property, whether improved or unimproved, including adjacent sidewalks and parking strips.

PRIMARY DRAINAGE SYSTEM — Facilities, structures, and areas which convey, store, or receive runoff from storms up to a ten-year frequency.

PROPERTY OWNER — Any person having legal or equitable title to property or premises or any person having or exercising care, custody or control over any property or premises.

RECEIVING BODY OF WATER — Any watercourse or wetland into which surface waters are directed, either naturally or artificially.

RETENTION BASIN — A holding area for stormwater, either natural or constructed, which does not have a positive outlet. Water is removed from retention basins through infiltration and/or evaporation processes, and may or may not have a permanent pool of water.

RUNOFF — The portion of precipitation which does not infiltrate or percolate into the ground, but rather moves over the land, eventually reaching a body of water, wetland, or low area.

SECONDARY DRAINAGE SYSTEM — Facilities, structures, and areas which convey, store or receive runoff from storms up to a one-hundred-year frequency without causing serious damage to adjacent properties.

SEDIMENT — Any solid particulate matter, both mineral and organic, which has been moved from the site of origin by erosion, is being transported by water, is in suspension in water, or has been deposited in a body of water, wetland or floodplain.

SITE — Any tract, lot, or parcel of land or combination of tracts, lots, or parcels, which compose an area proposed for development and/or earth change.

SOIL EROSION — The stripping of soil and weathered rock from land, creating sediment for transportation by water, wind or ice, and enabling formation of new sedimentary deposits.

STATE OF MICHIGAN WATER QUALITY STANDARDS — All applicable state rules, regulations, and laws pertaining to water quality, including the provisions of Section 3106 of Part 31 of 1994 P.A. 451, as amended.

STORM DRAIN — A system of open or enclosed conduits and appurtenant structures intended to convey or manage stormwater runoff, groundwater and drainage.

STORMWATER DRAINAGE SYSTEM — Storm sewers, conduits, curbs, gutters, catch basins, drains, ditches, pumping devices, parking lots, roads or other man-made channels that are designed or used, singly or together in combination with one another, for collecting or conveying stormwater.

STORMWATER FACILITY — Methods, structures, BMPs, areas, or related items, which are used to control, store, receive, infiltrate, or convey runoff.

STORMWATER MANAGEMENT PLAN — Maps and written information which describe the way in which stormwater will be controlled, both during and after construction.

STORMWATER POLLUTION PREVENTION PLAN — A document that describes the BMPs and activities to be implemented by a person or business to identify sources of pollution or contamination at a site, and the actions to eliminate or reduce pollutant discharges to stormwater, a storm drain or stormwater drainage system, and/or a water body to the maximum extent practicable.

STORMWATER RUNOFF (or STORMWATER) — The runoff and drainage of precipitation resulting from rainfall, snowmelt or other natural event or process.

TOXIC MATERIAL — Any pollutant or combination of pollutants that is or can potentially be harmful to the public health or the environment, including without limitation those listed in 40 CFR 401.15 as toxic under the provisions of the Clean Water Act or listed in the Critical Materials Register promulgated by the Michigan Department of Environmental Quality, or as otherwise provided by local, state or federal laws, rules or regulations.

WASTEWATER — Any water or other liquid, other than uncontaminated stormwater, discharged from a property or premises. The term includes any water that has in any way been used and degraded or physically or chemically altered.

WATER BODY — A river, lake, stream, creek or other watercourse or wetlands.

WATERCOURSE — Any waterway or other body of water having reasonably well-defined banks, including rivers, streams, creeks and brooks, whether continually or intermittently flowing; and lakes and ponds, as shown on the official maps of the Michigan Department of Natural Resources and Kalamazoo County Drain Commissioner.

WETLAND — Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation and/or aquatic life. Also known as a bog, swamp, marsh, etc. (from § 324.30301 of Michigan Compiled Laws, Part 303 of NREPA, Wetlands Protection). The Michigan Department of Environmental Quality is the authority on the presence and regulatory status of wetlands.

ARTICLE II

Prohibitions and Allowable Discharges**§ 398-6. Prohibited discharges.**

- A. It is unlawful for any person to discharge or cause to be discharged to a stormwater drainage system or water body, directly or indirectly, any substance or material, including, but not limited to, pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater or an allowable discharge. This prohibition includes the commencement, conducting or continuance of any illicit discharge by any person to a stormwater drainage system or water body.
- B. Any person discharging stormwater shall effectively prevent pollutants from being discharged with the stormwater, except in accordance with BMPs.
- C. The authorized enforcement agency is authorized to require dischargers to implement pollution prevention measures, using stormwater pollution prevention plans and BMPs, as determined necessary by the authorized enforcement agency, to prevent or reduce the discharge of pollutants to a stormwater drainage system or water body.
- D. The discharge prohibitions of this section shall not apply to any nonstormwater discharge allowed under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the EPA, provided the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the stormwater drainage system.

§ 398-7. Prohibited illicit connections.

- A. It is unlawful for any person to construct, use, maintain (or to allow the construction, use, maintenance or continued existence of) an illicit connection.
- B. This prohibition expressly includes, without limitation, illicit connections made prior to the effective date of this chapter, and regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

§ 398-8. Allowable discharges.

The following nonstormwater discharges are permissible, provided they do not result in a violation of State of Michigan water quality standards, and provided that they are undertaken in compliance with any applicable or required BMPs:

- A. Water supply line flushing.
- B. Landscape irrigation runoff.
- C. Diverted stream flows.
- D. Rising groundwater.

- E. Uncontaminated groundwater infiltration to storm drains.
- F. Uncontaminated pumped groundwater.
- G. Discharges from potable water sources.
- H. Foundation drains.
- I. Air-conditioning condensate.
- J. Irrigation water.
- K. Springs.
- L. Water from crawl space pumps.
- M. Footing drains and basement sump pumps.
- N. Lawn watering runoff.
- O. Waters from noncommercial car washing.
- P. Flows from riparian habitats and wetlands.
- Q. Residual street wash water.
- R. Discharges or flows from emergency firefighting activities.
- S. Single-family, residential swimming pool discharges so long as the pool waters have been effectively dechlorinated (less than 0.5 parts per million chlorine) and so long as the discharge does not occur during times of heavy rains.
- T. Dye testing using MDEQ-approved dyes, so long as authorized by a DEQ Rule 97 Certificate of Approval, and preceded by a written notification to and approval from the Stormwater Protection Administrator.

§ 398-9. Storage of hazardous or toxic materials in drainageway.

Except as permitted by law, it shall be unlawful for any person to store or stockpile within a drainageway any hazardous or toxic materials, unless adequate protection and/or containment has been provided so as to prevent any such materials from entering a stormwater drainage system or water body.

ARTICLE III

Inspection, Monitoring, Reporting and Recordkeeping

§ 398-10. Inspection and sampling.

The authorized enforcement agency may inspect and/or obtain samples from a discharger's property or premises as necessary to determine compliance with the requirements of this chapter. Upon request, the discharger shall allow the properly identified representatives of the authorized enforcement agency to enter the property or premises of the discharger at all hours necessary for the purposes of such inspection, investigation, or monitoring, including, but not

limited to, smoke/dye testing, televising pipes, examination and/or copying of records that are required by this chapter to be maintained, sampling and excavation. The authorized enforcement agency shall provide the discharger reasonable advance notice of the need for such access, if possible and consistent with protection of public health and safety and the environment. The properly identified representatives may place on the discharger's property or premises the equipment or devices used for such sampling or inspection. Unreasonable delays in allowing access to a property or premises is a violation of this chapter.

§ 398-11. Stormwater-monitoring facilities.

If directed in writing to do so by the authorized enforcement agency, a discharger of stormwater runoff from any property or premises shall provide and operate equipment or devices for the monitoring of stormwater runoff to provide for inspection, sampling and flow measurement of each discharge to a water body or a stormwater drainage system, as specified by the authorized enforcement agency. The authorized enforcement agency may require a discharger to provide and operate such equipment and devices if it is necessary or appropriate for the inspection, sampling and flow measurement of discharges in order to determine whether adverse effects from, or as a result of, such discharges may occur. All such equipment and devices for the inspection, sampling and flow measurement of discharges shall be installed and maintained at the discharger's expense in accordance with applicable laws, ordinances and regulations.

§ 398-12. Accidental discharges.

Any discharger who accidentally discharges into a stormwater drainage system or a water body any substance other than stormwater or an allowable discharge shall immediately notify the authorized enforcement agency of the discharge. If the notification is given orally, a written report concerning the discharge shall be filed with the authorized enforcement agency within five days. The written report shall specify all of the following:

- A. The composition of the discharge and the cause thereof.
- B. The exact date, time and estimated volume of the discharge.
- C. All measures taken to clean up the discharge, all measures taken or proposed to be taken to mitigate any known or potential adverse impacts of the discharge, and all measures proposed to be taken to reduce and prevent any recurrences.
- D. The names and telephone numbers of the individual making the report and (if different) the individual who may be contacted for additional information regarding the discharge.

§ 398-13. Recordkeeping requirement.

Any person that violates the requirement of this chapter or that is subject to monitoring under this chapter shall retain and preserve for no less than five years any and all books, drawings, plans, prints, documents, memoranda, reports, correspondence and records, including records on magnetic or electronic media, and any and all summaries of such records relating to monitoring, sampling and chemical analysis of any discharge or stormwater runoff from any property or premises connected with the violation or subject to monitoring.

ARTICLE IV

Performance and Design Standards**§ 398-14. Responsibility to implement BMPs.**

The owner or operator of a premises used for any multiple-family dwellings, mobile home parks, planned unit development, plat, site condominium, office, commercial or industrial purposes (regardless of parcel size) shall provide, at the owner's or operator's own expense, reasonable protection from an accidental discharge of prohibited materials or other wastes from entering into the stormwater drainage system or natural water body through the use of structural and nonstructural BMPs. Further, any person responsible for a property or premises that is, or may be, the source of an illicit discharge may be required to implement, at his expense, additional structural and nonstructural BMPs to prevent the further discharge of pollutants to the stormwater drainage system or natural water body. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section.

§ 398-15. Performance standards.

A. Stormwater management areas and facilities, whether on site or off site, shall be designed, constructed, and maintained to prevent flooding and protect water quality. In order to be approved, all stormwater management plans must meet the following performance standards:

- (1) Runoff leaving the site shall be controlled to a nonerosive velocity, both during and after construction.
- (2) Minimum treatment volume.
 - (a) A minimum treatment volume is established to provide pollutant removal (pretreatment) for prevalent precipitation events. The minimum treatment volume standard shall be one inch of runoff from the entire site. Use of the United States Geological Service (USGS) runoff curve number method is the preferred means to calculate site runoff.
 - (b) Treatment methods shall be designed on a site-specific basis to achieve a minimum of 80% removal of total suspended solids (TSS), as compared with uncontrolled runoff, or discharge concentrations of TSS not to exceed 80 milligrams per liter (mg/l).
 - (c) A minimum treatment volume standard is not required where site conditions are such that TSS concentrations in stormwater discharges will not exceed 80 mg/l.
- (3) Channel protection criteria.
 - (a) Channel protection criteria is established to protect stream channel bed and banks from excessive flows. The channel protection criteria is to maintain post-development site runoff volume and peak flow rate at or below existing levels for all storms up to the two-year, twenty-four-hour event.

"Existing levels" means the runoff flow volume and rate for the last land use prior to the planned new development or redevelopment.

- (b) An acceptable source of rainfall data for calculating runoff volume and peak flow rate is: Rainfall Frequency Atlas of the Midwest, Huff and Angel, NOAA Midwest Climate Center and Illinois State Water Survey, 1992. Methods for estimating predevelopment and post-development runoff shall follow the USGS runoff curve number method.
- (c) Curve number evaluation is described in a document titled "Computing Food Discharges for Small Ungauged Watersheds," July 2003, which can be found at www.michigan.gov/deqstormwater under "Municipal Program/MS4 Permit Guidance" (go to "Stormwater Control Resources" and select "Guidance for Calculating Runoff Volume and Peak Flow Rate").
- (4) Flood control. A flood control performance standard is required to ensure stormwater entering the Village MS4 is less than or equal to the existing (predevelopment) conditions, and on-site retainage is properly designed to protect neighboring properties. The Village Engineer or designee will review each site plan for approval on a case-by-case basis to determine if the proposed strategy meets industry standards and is appropriate for the specific site.
- (5) Riparian buffers.
 - (a) A riparian buffer shall be provided for lands adjacent to streams and rivers and wetlands which are contiguous to these natural features. Riparian buffers shall also be required for noncontiguous wetlands if the full extent of the wetland as a natural feature is five acres or greater.
 - (b) The riparian buffer shall serve as a natural conservation area, where the principal best management practice is vegetative filtering and the conservation of trees, shrubs and herbaceous vegetation. The riparian buffer is a stormwater management measure to control soil loss and reduce water quality degradation caused by nutrients, animal wastes, toxins, sediment and runoff.
 - (c) The riparian buffer shall begin at the edge of the stream bank of the active channel or the wetland boundary. The riparian buffer shall be composed of two distinct management zones in order to proscribe both permitted and restricted uses that provide progressive best management practices for stormwater quality protection.
 - [1] Zone 1 — Stream Side Protection. Zone 1 begins at the edge of the stream bank or wetland and extends 25 feet upgradient and perpendicular to the protected natural feature. Zone 1 shall contain undisturbed natural vegetation. Allowable uses within this zone are restricted to flood control structures, utility rights-of-way, foot paths, and road crossings, where permitted. Highly restricted vegetative trimmings and removal of woody brush/trees is allowed to provide a limited viewshed of the protected natural feature.

- [2] Zone 2 — Outer Zone. The Outer Zone (Zone 2) begins at the outer limit of the Stream Side Protection Zone (Zone 1) and extends 25 feet. Allowable uses within the Outer Zone are biking or hiking paths, approved stormwater management facilities, approved recreational facilities, and removal of mature tree cover. Shrub and herbaceous ground cover are to be protected from disturbance.
 - [3] Permitted activities. The following actions are permitted within Zones 1 and 2, provided the activity is undertaken in accordance with recognized best management practices. Other regulatory restrictions may apply, such as actions that may require separate federal, state or local permit or permit-by-rule provisions.
 - [a] Stream restoration projects conducted with advice and guidance of the Michigan Department of Environmental Quality.
 - [b] Removal of individual trees that are in danger of falling, causing damage to structures, or causing blockage of the stream.
 - [c] Timber-cutting techniques approved by state agencies, under advice and guidance, for purposes of forest management due to pest infestation, disease or threat from fire.
 - [d] Riparian buffers are intended to grow into their vegetative target state naturally; however, active methods to enhance successional process, reforestation or to ensure preservation and propagation of the buffer are allowed.
 - [4] The width of each zone may need to be increased if steep slopes are within close proximity of the protected natural feature. Guidelines of the United States Geological Service may be used to determine the required equivalent length of vegetative filter capacity needed for slopes in excess of 15%.
 - [5] Encouragement of voluntary measures. Lands adjacent to the outer edge of the Outer Zone (Zone 2) are hereby defined as riparian lands. Riparian property owners have a unique and critical role in protecting water quality, preserving critical natural features and accommodating wildlife whose survival depends upon water features and conservation corridors. For example, some studies suggest that riparian buffers of 150 feet may be required for certain Michigan threatened species to successfully move between larger conservation areas and maintain healthy breeding populations. Therefore, it is a policy of the Village to educate, outreach and otherwise assist riparian landowners in the implantation of additional voluntary stormwater best management practices.
- B. Stormwater storage facilities which protect water quality and prevent adverse flooding on-site and off-site shall be required for all sites. In order to improve the quality of stormwater runoff and reduce the discharge of sediment into wetlands, watercourses, roadways, structures and other property within, and downstream of the Village of

Vicksburg, the following techniques in Subsection B(1) through (6) and standards in Subsection B(7) through (9) shall be used:

- (1) Infiltration of runoff, provided that soils and groundwater conditions are suitable.
 - (2) Retention basins with a fixed minimum water elevation between runoff events (e.g., wet ponds).
 - (3) Detention basins which drain completely after a storm event (e.g., dry basins) but which discharge stormwater to wetlands or constructed basins which trap sediment carried by stormwater runoff.
 - (4) Detention basins which hold stormwater for more than 24 hours before completely draining to become a dry basin (extended detention basins).
 - (5) Detention basins with a positive outlet shall be designed to hold runoff from a ten-year storm event, at a minimum. Retention basins without a positive outlet shall be designed to hold runoff from a one-hundred-year storm event.
 - (6) The banks of detention basins shall not exceed a 1:5 slope unless a fence is constructed.
 - (7) Natural watercourses shall not be dredged, cleared of vegetation, deepened, widened, straightened, stabilized or otherwise altered without approval from the Michigan Department of Natural Resources and Kalamazoo County Drain Commissioner.
 - (8) Discharge of runoff from commercial and industrial sites which may contain oil, grease, toxic chemicals, or other polluting materials shall be prohibited unless approval has been obtained from the Michigan Department of Natural Resources and Kalamazoo County Drain Commissioner.
 - (9) The use of stormwater management areas and vegetated buffer areas as open space, recreation, and conservation areas shall be encouraged.
 - (10) Right of entry; furnishing information. Representatives of the Village, State of Michigan DNR or DEQ, Michigan Department of Transportation, and Kalamazoo County Drain Commission shall have the right to enter at any reasonable time any property served by a stormwater drainage facility for inspections, investigations, or monitoring. On request, the owner, lessees or occupants of any property so served shall furnish to the inspection agency any pertinent information regarding the drainage system or systems on such property. The refusal of such information or refusal of access, when requested, shall be deemed evidence of the presence of unlawful discharge.
- C. Pipes, conduits, ditches, drains, or other conveyance facilities shall not discharge directly to the following receiving waters without providing the minimum treatment volume and channel protection criteria:
- (1) Any natural watercourses, including lakes, ponds, rivers and streams.
 - (2) Wetlands with unique or natural wildlife or habitat characteristics as defined by a professional wetlands delineation specialist, biologist or ecologist.

- (3) Wetlands which are within a 500-foot distance of any natural lake or pond.
- (4) Wetlands which are within a 100-foot distance of any river or stream.
- D. Discharges from stormwater conveyance facilities shall be routed through swales, vegetated buffer strips, stormwater basins, hydrologically isolated wetlands, and other facilities designed to decrease runoff velocity and volume, allow for natural infiltration, allow suspended solids to settle, and remove pollutants.
- E. If wetlands are proposed for stormwater detention, runoff must be diffused to nonerosive velocities before it reaches the wetlands.
- F. Operation and maintenance. All structural and vegetative best management practices installed as a performance standard for stormwater management shall include a plan for maintaining maximum performance through long-term operation and maintenance (O&M). The plan shall include a schedule for O&M procedures and recordkeeping provisions such as periodic inspections.
- G. Records retention. Inspections and other records pertaining to the O&M of best management practices for stormwater water quality protection shall be maintained by the property owner and retained for a minimum of five years.
- H. No stormwater management plan shall be approved if the Village of Vicksburg Planning Commission finds that the action will or is likely to pollute, impair or destroy air, water or other natural resources or the public trust therein, provided that there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare.

§ 398-16. Design standards.

The Village shall maintain design standards on file at the Village office. If specific BMP's design standards are not on file, design for such BMPs shall be in accordance with acceptable engineering practices and current design manuals.

§ 398-17. Hot spots properties.

If the subject property is a potential "hot spot" area with the potential for significant pollutant loading or with the potential for contaminating public water supply (wells), additionally site-specific requirements may apply to address the contaminate(s) of concern. Examples of typical hot spot areas, include but are not limited to gas stations, commercial vehicle maintenance and repair, auto recyclers, recycling centers, and scrap yards.

§ 398-18. Contaminated properties.

If the subject property contains soil and/or groundwater contamination, site-specific requirements may apply. See MDEQ Post-Construction Stormwater Runoff Controls Program Compliance Assistance Document (MDEQ, 2014) for specifics regarding stormwater. The property owner or the property owner's representative shall contact the Kalamazoo District MDEQ Office remediation and redevelopment staff prior to approval of the site plan for answers to questions regarding all state environmental regulations and requirements

pertaining to site-specific requirements. Property owner shall provide documentation and supporting material to the Village regarding aforementioned contact and MDEQ requirements prior to approval. The Village will make any site plan approval contingent to the property owner meeting the MDEQ requirements.

ARTICLE V

Stormwater Management Plan and Post Construction

§ 398-19. Stormwater management plan.

No building, grading, or sediment control permit shall be issued until a satisfactory stormwater management plan (or a waiver thereof) shall have undergone a review and been approved by the Village, after determining that the plan or waiver is consistent with the requirements of this chapter. After review of the stormwater management plan, and modifications to that plan as deemed necessary by the Village, a stormwater management final plan must be submitted to the Village for approval. The stormwater management plan shall at a minimum include the following:

- A. Contact information. The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected.
- B. Topographic base map. One inch equals 200 feet topographic base map of the site, which extends a minimum of 100 feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and man-made features not otherwise shown.
- C. Calculations. Hydrologic and hydraulic design calculations for the predevelopment and post-development conditions for the design storms.
- D. Soils information. If a stormwater BMP depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil sites shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the BMP.
- E. Maintenance and repair plan. The design and planning of all stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued function. These plans will identify the chapters or components of a stormwater BMP that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.
- F. Landscaping plan. The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

- G. Stormwater best management practices operations and maintenance agreement. Proof of a recorded stormwater best management practices operations and maintenance agreement binding on all subsequent owners of land served by stormwater BMPs, to ensure maintenance and repair in accordance with the specifications of this chapter.

§ 398-20. Maintenance and repair of stormwater BMPs.

- A. Stormwater best management practices operations and maintenance agreement. Prior to the issuance of any permit for development involving any stormwater BMP, the applicant or owner of the site must execute a stormwater best management practices operations and maintenance agreement that shall be binding on all subsequent owners of land served by the stormwater BMP. The agreement shall provide for access to the BMP and the land it serves at reasonable times for periodic inspection by Village or the Village's designee and for regular or special assessments of property owners to ensure that the BMP is maintained in proper working condition to meet Village stormwater requirements. The agreement shall be recorded by the Village at the expense of the permit holder or property owners.
- B. Maintenance covenants. Maintenance of all stormwater BMPs shall be ensured through the creation of a formal maintenance covenant that must be approved by the Village and recorded prior to the stormwater management final plan approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of the stormwater BMPs. The covenant shall also include plans for periodic inspections to ensure proper performance of the BMPs between scheduled cleanouts.
- C. Requirements for maintenance covenants. All stormwater BMPs must undergo, at the minimum, an annual inspection to document maintenance and repair needs and ensure compliance with the requirements of this chapter and accomplishment of its purposes. These needs may include (but are not limited to) removal of silt, litter, and other debris from all stormwater treatment and conveyance facilities including ponds, infiltration basins, rain gardens, catch basins, inlets, and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any maintenance or repair needs detected must be corrected by the developer or entity responsible under a written maintenance agreement within 30 days, as determined by Village, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater BMPs.
- D. Inspection of stormwater BMPs. Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of state or federal water or sediment quality standards or the NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include but are not limited to reviewing maintenance and repair

records; sampling discharges, surface water, groundwater, and material or water in stormwater BMPs, and evaluating the condition of stormwater BMPs.

- E. Right of entry for inspection, investigation, or monitoring. When any new stormwater BMP is installed on private property, or when any new connection is made between private property and a public stormwater management facility, sanitary sewer or combined sewer, the property owner shall grant to the Village the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection, investigation, or monitoring. This includes the right to enter a property when the Village has a reasonable basis to believe that a violation of this chapter is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this chapter.
- F. Records of installation and maintenance and repair activities. Parties responsible for the operation and maintenance of stormwater BMPs shall submit to the Village Clerk an annual maintenance and inspection report, including all records of the installation and of all maintenance and repairs conducted. The responsible parties shall retain the records for at least five years or longer if the Village Inspector deems it necessary. These records shall be made available to the Village during inspection of the facility and at other reasonable times upon request.
- G. Failure to maintain stormwater BMPs. If a responsible party fails or refuses to meet the requirements of the maintenance covenant or any provision of this chapter, the Village, after reasonable notice, may correct a violation by performing all necessary work to place the BMP in proper working condition. In the event that the stormwater BMP becomes a danger to public safety or public health, the Village shall notify the party responsible for maintenance of the stormwater BMP in writing. Upon receipt of that notice, the responsible person shall have 30 days to effect maintenance and repair of the stormwater BMP in an approved manner. After proper notice, the Village may assess, jointly and severally, the owners of the stormwater BMP or the property owners or the parties responsible for maintenance under any applicable written agreement for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes.

ARTICLE VI

Enforcement

§ 398-21. Sanctions for violation.

- A. Violation. Any person who:
 - (1) Knew or should have known that a pollutant or substance was discharged contrary to any provision of this chapter or contrary to any notice, order, permit, decision or determination promulgated, issued or made by the authorized enforcement agency under this chapter; or
 - (2) Intentionally makes a false statement, representation or certification in an application for or form pertaining to a permit, or in a notice, report or record required by this chapter, or in any other correspondence or communication,

written or oral, with the authorized enforcement agency regarding matters regulated by this chapter; or

- (3) Intentionally falsifies, tampers with or renders inaccurate any sampling or monitoring device or record required to be maintained by this chapter; or
 - (4) Commits any other act that is punishable under state law by imprisonment for more than 90 days.
- B. Shall, upon conviction, be guilty of a misdemeanor punishable by a fine of \$500 per violation, per day, or imprisonment for up to 90 days, or both, in the discretion of the court.

§ 398-22. Failure to comply; completion.

The authorized enforcement agency is authorized, after giving reasonable notice and opportunity for compliance, to correct any violation of this chapter or damage or impairment to the stormwater drainage system caused by a discharge and to bill the person causing the violation or discharge for the costs of the work to be reimbursed. The costs reimbursable under this section shall be in addition to fees, amounts or other costs and expenses required to be paid to the authorized enforcement agency under other sections of this chapter.

§ 398-23. Emergency measures.

If emergency measures are necessary to respond to a nuisance; to protect public safety, health and welfare; and/or to prevent loss of life, injury or damage to property, the authorized enforcement agency is authorized to carry out or arrange for all such emergency measures. Property owners shall be responsible for the cost of such measures made necessary as a result of a violation of this chapter and shall promptly reimburse the Village for all of such costs.

§ 398-24. Cost recovery for damage to stormwater drainage system.

Any person who discharges to a stormwater drainage system or a water body, including, but not limited to, any person who causes or creates a discharge that violates any provision of this chapter, produces a deposit or obstruction or otherwise damages or impairs a stormwater drainage system, or causes or contributes to a violation of any federal, state or local law governing the Village, shall be liable to and shall fully reimburse the Village for all expenses, costs, losses or damages (direct or indirect) payable or incurred by the Village as a result of any such discharge, deposit, obstruction, damage, impairment, violation, exceedance or noncompliance. The costs that must be reimbursed to the Village shall include, but shall not be limited to, all of the following:

- A. All costs incurred by the Village in responding to the violation or discharge, including expenses for any cleaning, repair or replacement work, and the costs of sampling, monitoring and treatment, as a result of the discharge, violation, exceedance or noncompliance.

- B. All costs to the Village of monitoring, surveillance and enforcement in connection with investigating, verifying and prosecuting any discharge, violation, exceedance or noncompliance.
- C. The full amount of any fines, assessments, penalties and claims, including natural resource damages, levied against the Village or any Village representative by any governmental agency or third party as a result of a violation of applicable laws or regulations that is caused by or contributed to by any discharge, violation, exceedance or noncompliance.
- D. The full value of any Village staff time (including any required overtime), consultant and engineering fees, and actual attorneys' fees and defense costs (including the Village legal counsel and any special legal counsel) associated with responding to, investigating, verifying and prosecuting any discharge, violation, exceedance or noncompliance, or otherwise enforcing the requirements of this chapter.

§ 398-25. Collection of costs; lien.

- A. Costs incurred by the Village pursuant to §§ 398-22, 398-23, 398-24 and 398-26A shall constitute a lien on the property or premises, which shall be enforceable in accordance with Act No. 94 of the Public Acts of 1933, as amended from time to time, or as otherwise authorized by law. Any such charges that are delinquent for six months or more may be certified to the Village of Vicksburg Treasurer, who shall enter the lien on the next tax roll against the property or premises, the costs shall be collected and the lien shall be enforced in the same manner as provided for in the collection of taxes assessed upon the roll and the enforcement of a lien for taxes. In addition to any other lawful enforcement methods, the Village shall have all remedies authorized by Act No. 94 of the Public Acts of 1933, as amended, and by other applicable laws.
- B. The failure by any person to pay any amounts required to be reimbursed to the Village as provided by this chapter shall constitute an additional violation of this chapter.

§ 398-26. Suspension of access to stormwater drainage system.

- A. Suspension due to illicit discharges in emergency situations. The authorized enforcement agency may, without prior notice, suspend access to the stormwater drainage system to any property or premises when such suspension is necessary to stop an actual or threatened discharge that presents or may present imminent and substantial danger to the environment or to the health or welfare of persons or to the stormwater drainage system or a water body. If the property or premises owner fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the stormwater drainage system or the environment or to minimize danger to persons, and bill the property or premises owner for the costs incurred by the Village.
- B. Suspension due to the detection of illicit discharge. Any person discharging to the stormwater drainage system in violation of this chapter may have his access to the system terminated if the authorized enforcement agency determines that such termination would abate or reduce an illicit discharge. The authorized enforcement

agency will notify a discharger of the proposed termination of access. It shall be unlawful for any person to reinstate access of the stormwater drainage system to a property or premises terminated pursuant to this section without the prior written approval of the authorized enforcement agency.

§ 398-27. Appeals.

Any person who has been cited for a violation of this chapter or has been ordered to take action to comply with the provisions of this chapter may appeal in writing to the Village Council of the Village of Vicksburg not later than 30 days after the action or decision being appealed. Such appeal shall identify the matter being appealed and the basis for the appeal. The Village Council shall consider the appeal and make a decision whereby it affirms, rejects or modifies the action being appealed. In considering any such appeal, the Village Council may consider the recommendations of the authorized enforcement agency and the comments of other persons having knowledge or expertise regarding the matter. In considering any such appeal, the Village Council may grant a temporary variance from the terms of this chapter so as to provide relief, in whole or in part, from the action being appealed, but only upon finding that the following requirements are satisfied:

- A. The application of the ordinance provisions being appealed will present or cause unnecessary hardship for the property or premises owner appealing; provided, however, that unnecessary hardship shall not include the need for a property or premises owner to incur additional reasonable expenses in order to comply with the chapter; and
- B. The granting of the relief requested will not prevent accomplishment of the goals and purposes of this chapter, nor result in less effective management of stormwater runoff.

§ 398-28. Judicial relief.

The Village may institute legal proceedings in a court of competent jurisdiction to seek all appropriate relief for violations of this chapter or of any permit, order, notice or agreement issued or entered into under this chapter. The action may seek temporary or permanent injunctive relief, damages, penalties, costs and any other relief, at law or equity, that a court may order. The Village may also seek collection of fines, penalties and any other amounts assessed and due to the Village that remain unpaid.

§ 398-29. Civil infraction.

Any violation of this Ordinance shall be considered a civil infraction, subject to a fine of not more than \$500 together with costs as provided for by ordinance. Each day a violation exists shall be deemed a separate violation. A citation charging such a violation may be issued by the Village's ordinance enforcement officer, or his or her designee.

§ 398-30. Remedies not exclusive.

The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the Village to seek cumulative remedies.

§ 398-31. Cumulative remedies.

The imposition of a single penalty, fine, order, damage or surcharge upon any person for a violation of this chapter or of any permit, order, notice or agreement issued or entered into under this chapter shall not preclude the imposition by the Village, the authorized enforcement agency, or a court of competent jurisdiction of a combination of any or all of those sanctions and remedies or additional sanctions and remedies with respect to the same violation, consistent with applicable limitations on penalty amounts under state or federal laws or regulations. A criminal citation and prosecution of a criminal action against a person shall not be dependent upon and need not be held in abeyance during any civil, judicial or administrative proceeding, conference or hearing regarding the person.

**ARTICLE VII
Interpretation****§ 398-32. Interpretation of words and phrases.**

Words and phrases in this chapter shall be construed according to their common and accepted meanings, except those words and phrases that are defined in § 398-5 shall be construed according to the respective definitions given in that section. Technical words and technical phrases not defined in this chapter, but which have acquired particular meanings in law or in technical usage, shall be construed according to such meanings.

§ 398-33. Catchline headings.

The catchline headings of the articles and sections of this chapter are intended for convenience only and shall not be construed as affecting the meaning or interpretation of the text of the articles or sections to which they may refer.

Chapter 14 – Site Plan Checklist & Environmental Checklist

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

Sec. 82-168. Application procedure.

A request for site plan review shall be made by filing with the village manager the following:

- (1) Fee. A review fee, the schedule of which shall be determined by the village council, will be paid for by the applicant to cover the cost of processing the site plan.
- (2) Application. One (1) copy of the application for site plan review shall be filled out completely and returned to the village manager's office.
- (3) Site Plan. Ten (10) full size prints of the site plan shall be submitted to the village manager's office. Each print shall contain the following data:
 - a) It shall be of a scale not greater than one (1) inch equals twenty (20) feet nor smaller than one (1) inch equals two hundred (200) feet and of such accuracy that the Planning Commission can readily interpret the plan.
 - b) It shall show an appropriate descriptive legend, north arrow, scale, etc.
 - c) A vicinity map shall be submitted showing the location of the site in relation to the surrounding street system.
 - d) It shall identify subject property by lot lines and location, including dimensions, angles and size, correlated with the legal description of said property.
 - e) It shall show the topography (at least 2 foot contour intervals), natural features such as woodlots, streams, rivers, lakes, drains and similar features.
 - f) It shall show existing manmade features on, and within one hundred (100) feet of the site, such as buildings, structures, high tension towers, pipe lines, existing utilities, such as water and sewer lines, etc., excavations, bridges, culverts, drains and easements and shall identify the existing uses and zoning of adjacent properties.
 - g) It shall show the location, proposed finished floor and grade line elevations, size of proposed main and accessory buildings, their relation to one another and to any existing structures on the site, the height of all buildings and square footage of floor space. Site plans for multiple-family residential development shall include a density schedule showing the number of dwelling units per net acre, including a dwelling schedule showing the unit type and number of each unit type.
 - h) It shall show the proposed streets, driveways, sidewalks and other vehicular and pedestrian circulation features within and adjacent to the site; also the location, size and number of parking spaces in the off-street parking areas and the identification of service lanes, and service parking and loading and unloading areas.
 - i) It shall show the proposed location, use, and size of open spaces and the location of any landscaping, screening, fences or walls on the site. Any proposed alterations to the topography and other natural features shall be indicated.

- j) Architect's or Engineer's seal.
 - k) Any other information deemed necessary by the Planning Commission.
- (4) Environmental Checklist. The Applicant or Owner shall submit to the village manager's office a completed Environmental Checklist.
- (5) Stormwater Management Plan. The Applicant or Owner shall submit to the village manager's office a Stormwater Management Plan and stormwater calculations.
- (6) Stormwater Best Management Practices Operations & Maintenance Agreement. The Applicant or Owner shall submit to the clerk's office a signed Stormwater Best Management Practices Operations & Maintenance Agreement between the Village and the Landowner or Designee and the applicable recording fee.

**Village of Vicksburg
Site Plan Review Application**

Return completed application to 126 N. Kalamazoo, Vicksburg, Michigan 49097 with:

- Site Plan Fee
- Ten (10) full size copies of the site plan
- Environmental Checklist
- Stormwater Management Plan and Stormwater Calculations
- Stormwater BMP O&M Agreement and Recording fee

Office Use Only:
Date Application Received: _____
Date of PC Meeting: _____
Notices Published/Mailed: _____

APPLICANT

Name: _____

Address: _____

Phone: _____ Email: _____

OWNER (if different than Applicant)

Name: _____

Address: _____

Phone: _____ Email: _____

PROPERTY

Address of Property: _____

Tax ID #(s) of Property: _____

Legal Description (attach additional sheets if necessary):

REQUEST

Briefly describe the request (attach additional sheets if necessary):

Applicant Signature

Date

**Village of Vicksburg
Environmental Checklist**

This checklist has been designed to assist businesses and developers in identifying and complying with state, county and local environmental permits and requirements. Please note that this checklist generally pertains only to state, county and local environmental permits. Additional permits and approvals may be required from the Village of Vicksburg or other government agencies. **This form must be completed and returned to the Village when a site plan is submitted.**

This checklist is not a permit application form; businesses are responsible for obtaining information and permit application forms from the appropriate government offices. Compliance and proper registration with applicable state, county and local requirements is required for site plan approval in the Village of Vicksburg. The Village will forward a copy of this form to the South County Fire Authority.

Name of Business: _____

Property Address: _____

Name of Business Owner: _____

Mailing Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Telephone: _____ **Fax:** _____

Email address: _____

Business Manager / Operator: _____

Type of Business (type of activities to be carried out at the proposed business– include all processes and operations): _____

I affirm that the information submitted in this form is accurate.

Owner's Signature: _____

Date: _____

Circle
Applicable

- | | | |
|---|---|---|
| 1. Does the project involve renovating or demolishing all or portions of a building? | Y | N |
| 2. Does the existing building (if applicable) contain asbestos? | Y | N |
| 3. Are there wetlands present on the property? | Y | N |
| 4. Has a wetlands determination been made? | Y | N |
| 5. Is the property within the 100-year flood plain? | Y | N |
| 6. Does the project involve any work (dredging, filling, draining, construction, etc.) in, across or under: | Y | N |
| ○ river, stream, creek, ditch, drain, lake, pond or swamp; or | | |
| ○ wetlands; or | | |
| ○ floodplain (i.e. an area that may have or has ever had standing or flowing water)? | | |
| 7. Does the project involve any earth change activity, including the disturbance of the natural cover, within 500 feet of a lake or stream? | Y | N |
| 8. Will the project change the natural cover or change the natural land topography (including cut and fill), or otherwise disturb an area greater than one acre in size? | Y | N |
| 9. Does the project involve construction which will disturb five or more acres? | Y | N |
| 10. Does the project involve any clearing, grading or earth moving in a public road right-of-way? | Y | N |
| 11. Does the project involve new curb cuts or improved access to a public road? | Y | N |
| 12. Has the on-site retention of all storm water runoff been provided? | Y | N |
| 13. Does the project discharge storm water runoff off site? If Yes, where? | Y | N |
| ○ Third party | | |
| ○ County drain | | |
| ○ Vicksburg storm sewer system | | |
| ○ Lake, river or stream | | |
| ○ Wetland | | |
| ○ Other (please specify) _____ | | |
| 14. Are stream, drain and lake edges to be protected with natural vegetative buffer strips; are protective buffer strips 20-feet in width or greater? <i>(Note: Site conditions such as slope angle, slope length and soil type may need greater widths for adequate environmental protection.)</i> | Y | N |
| 15. Has pre-treatment been provided of storm water discharges? | Y | N |
| 16. Have design provisions been made to accommodate periodic access of heavy equipment needed for regular maintenance of the storm water management system? | Y | N |
| 17. Does the project involve the discharge of any type of wastewater or cooling water (including air conditioning) to a storm sewer, drain, lake, stream, or other surface water? | Y | N |

- | | | |
|--|---|---|
| <p>18. Does or will the property contain a water well? If yes, please identify the type of well and the number (if known): _____</p> <ul style="list-style-type: none"> ○ single family well(s); _____ active _____ abandoned _____ sealed/closed wells ○ multi-family or multi-unit water well system, or a facility (such as a factory or restaurant) which serves a large number of employees/customers; _____ active _____ abandoned _____ sealed/closed wells ○ irrigation well(s) _____ active _____ abandoned _____ sealed/closed wells ○ monitoring well(s) _____ active _____ abandoned _____ sealed/closed wells | Y | N |
| <p>19. Does the project involve the installation, connection or alteration of any sanitary waste collection or connection to a public sanitary sewer line?</p> | Y | N |
| <p>20. Does the project involve construction or alteration of the community water system or extension of a public water main or the addition, removal or relocation of a fire hydrant?</p> | Y | N |
| <p>21. Will the project or facility discharge anything other than sanitary waste to the municipal sewer?</p> | Y | N |
| <p>22. Does the project have floor drains? If yes, to which system will they be connected? (<i>Note: Floor drains are not allowed to be connected to a storm sewer/drain, drywell, leaching basin, or septic system.</i>)</p> <ul style="list-style-type: none"> ○ sanitary sewer; ○ on-site holding tanks; ○ state approved discharge system; or ○ other (please specify) _____ | Y | N |
| <p>23. Does the project involve the generation of large quantities of dust?</p> | Y | N |
| <p>24. Does the project involve the discharge of liquids, sludge, wastewater and/or wastewater residuals into or onto the ground?</p> | Y | N |
| <p>25. Does the project involve the on-site reuse, treatment, storage or disposal of hazardous waste?</p> | Y | N |
| <p>26. Is the project site to be used for asphalt emulsion, cement manufacturing, feedlots, fertilizer manufacturing, petroleum refining, phosphate manufacturing, steam electric, or coal or mineral mining, processing or dressing?</p> | Y | N |
| <p>27. Does the project involve burning, landfilling, transferring or processing of any type of solid non-hazardous wastes on site?</p> | Y | N |
| <p>28. Does the project involve installation, construction, reconstruction, relocation, or alteration of any process or process equipment (including air pollution control equipment) which has the potential to emit air contaminants?</p> | Y | N |
| <p>29. Does the project involve transport of the contents of a holding tank, special waste or the transport of hazardous or non-hazardous liquid industrial waste?</p> | Y | N |
| <p>30. Does the site use storage tanks for holding petroleum products or other hazardous chemicals? If yes, are the tanks:</p> <ul style="list-style-type: none"> ○ Underground Storage Tank(s) _____ Quantity _____ Capacity ○ Above Ground Storage Tank(s) _____ Quantity _____ Capacity | Y | N |

Circle
Applicable

31. Does the project involve a facility for the storage or mixing of agricultural chemicals, or the storage or handling of agricultural manure? Y N
32. Does the project involve the storage of other chemicals, petroleum products or salt on the property? Y N
33. Does evidence exist that the project site is, or may be affected by environmental contamination from previous activities? Y N
 - If yes, has an Environmental Survey been completed for the project site? Y N
Contact your legal advisor.—An Environmental Survey can identify the need to conduct a Phase I Environmental Site Assessment for purposes of environmental liability protection.
34. Does any portion of the site fall under MI Part 201 of PA 451 1994, “Michigan Sites of Environmental Contamination”? Y N
35. Is any portion of the site subject to corrective action under the MI “Leaking Underground Storage Tank Program”? Y N
36. Are you or the site owner currently involved in any compliance discussion with the Office of the Attorney General regarding this project or any other facilities under your ownership? Y N

Please list hazardous substances (see definition), hazardous waste, industrial waste, oil, or salt products expected to be used, stored, generated, or recycled on site, or transported to/from site. Quantities should reflect maximum volumes on site at any one time. Attach Material Safety Data Sheets for each chemical or provide on computer disc. Attach additional pages if necessary.

	Chemical Common or Trade Name	Chemical Components	Form*	Maximum Quantity	Storage**
1					
2					
3					
4					

*Form: L = Liquid; PL = Pressurized Liquid; PG = Pressurized Gas; S = Solid

**Storage: AST = Above-ground Storage Tank; UST = Underground Storage Tank;
 PT = Portable Tank D = Drum; WC = Wooden Container; O = Other (specify)

Chapter 15 – Stormwater BMP Operations and Maintenance Agreement

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS & MAINTENANCE AGREEMENT

THIS AGREEMENT, effective _____, 20__, between the Village of Vicksburg, a Michigan municipal corporation, whose address is 126 North Kalamazoo Avenue, Vicksburg, Michigan 49097 (Village) and _____, [status of landowner; i.e. individual(s) or companies] whose address is _____ (Landowner).

Recitals:

- A. The Village is regulated under the U.S. Environmental Protection Agency's (EPA) Phase II Stormwater Program since it has a municipal separate storm sewer system (identified in the Performance Standards as MS4). Therefore, the Village is required to have a National Pollutant Discharge Elimination System (NPDES) Permit for its discharge of stormwater. The Michigan Department of Environmental Quality (MDEQ) administers the NPDES permit program for the State of Michigan (33 U.S.C. 1251 et seq., P.L. 92-500, 95-217) under Part 31, Water Resources Protection, of Michigan's "Natural Resources and Environmental Protection Act", 1994 PA 451 (NREPA).
- B. Landowner owns real estate in the Village at _____, Vicksburg, MI 490__ - Parcel No(s) _____ - and which is more specifically described in Exhibit A (Property).
- C. Landowner uses the Property for multi-family residential, commercial, industrial purposes, or a combination of those uses. Landowner is making improvements to the Property that requires approval under the Village's Site Plan Review process, or is modifying the existing stormwater discharge system on the Property that either impacts the Village's system or the retention of stormwater on the Property. As a result of those uses, improvements or modifications, Landowner agrees: (i) to install and maintain stormwater best management practices (BMPs) on the Property in accordance with approved plans and conditions; and (ii) to ensure that the BMPs continue serving the intended function in perpetuity.
- D. Before signing this Agreement the Landowner, including its representatives, contractors or agents, has reviewed or had the opportunity to review the Performance Standards, work sheets or other documents maintained by the Village relating to the Village's regulation of its Stormwater Program and this Agreement.

THEREFORE, in consideration of the above recitals and the covenants, conditions, and restrictions stated below, the parties agree as follows:

1. Recitals. The above recitals are acknowledged as true and correct, and are incorporated by reference into this paragraph.
2. Installation and Maintenance. Landowner is solely responsible for the installation, maintenance and repair of the stormwater BMPs.
3. Inspections and Repairs. Landowner shall regularly inspect, maintain, repair or replace the private stormwater BMPs consistent with the Manufactured Treatment Device (identified in the Performance Standards as MTD) as recommended by the manufacturer, and those recommendations provided in the “Low Impact Development Manual for Michigan – A Design Guide for Implementers and Reviewers” (Southeast Michigan Council of Governments and MDEQ, 2008), and “Michigan Nonpoint Source Best Management Practices Manual” (MDEQ, 2014).
4. Submittal of Reports. Landowner shall annually submit a report to the Village – on the form provided by the Village – regarding stormwater BMPs Operation & Maintenance for each of the MTDs and other BMPs. Landowner shall deliver the report to the Village’s Clerk either by mail to 126 North Kalamazoo Avenue, Vicksburg, MI 49097, via fax at 269-649-3997, or via e-mail to the current clerk, within 30 calendar days of the inspection date.
5. Modifications to the Stormwater System. Landowner shall contact the Village for approval prior to any design modifications to the stormwater treatment and/or conveyance system on the Property.
6. Village’s Access to the Property. Landowner, its successors and assigns, hereby grants the Village, its authorized agents and employees, the right to enter upon the Property to inspect the stormwater BMPs whenever the Village reasonably considers an inspection necessary in carrying out the intent and purpose of this Agreement. For example, an inspection may occur: (i) to follow-up on reported deficiencies in Landowner’s exercise of stormwater BMPs; or (ii) to address lack of submitted documentation Landlord is required to submit to the Village; or (iii) to respond to citizen complaints. The Village shall provide Landowner with copies of the inspection findings, including any directive to perform maintenance, repairs or replacements, if necessary, to the stormwater conveyance system on the Property.
7. Default by Landowner/Remedies. If Landowner fails to maintain the stormwater BMPs and associated stormwater conveyance system in good working condition acceptable to the Village, the Village may enter upon the Property and take whatever steps necessary to correct deficiencies, including those identified in the inspection report. Landowner is responsible to pay the costs the Village incurred for those repairs. The Village will provide an itemized list of the repairs in an

invoice to Landowner, which is due within 30 days of the date on the invoice. To secure any amount owed by Landowner to the Village under this Paragraph, the Village has the right to place a lien against the Property in the same manner as delinquent taxes, including accruing interest, penalties and administrative expenses until the lien is fully satisfied.

It is expressly understood and agreed that the Village is under no obligation to routinely inspect, maintain or repair the stormwater BMPs or stormwater conveyance system; and in no event shall this Agreement be construed to impose those obligations on the Village.

8. **No Liability of the Village.** This Agreement imposes no liability of any kind whatsoever on the Village and the Landowner agrees to hold the Village harmless from any liability if the stormwater BMPs and/or stormwater conveyance system failure to operate properly.
9. **Compliance with other Laws.** This Agreement does not replace or change the requirements of the Landowner to comply with all other applicable federal, state and local laws, rules and regulations; specifically including, without limitation, Chapter 398 of the Code of Ordinances (Stormwater Management).
10. **Binding Effect/Third Parties.** This Agreement is binding on and shall inure to the benefit of the parties to this Agreement and their respective successors. Neither party may assign this Agreement without the prior written consent of the other party. The parties do not intend to confer any benefits on any person, firm, corporation, or other entity which is not party to this Agreement.
11. **Governing Law.** This Agreement is governed under applicable Michigan law. Both parties had the assistance of or the opportunity to seek legal counsel regarding the signing of this Agreement. Therefore, no construction or ambiguity of this Agreement is resolved against either party.
12. **Waiver.** A party does not waive any of its rights under this Agreement if that party fails to complain about an act or omission by the other party, no matter the duration of that act or omission. And a waiver by either party, whether expressed or implied, of any breach of a provision in this Agreement is not considered a waiver or consent to any subsequent breach of this same or other provision.
13. **Exhibits.** This Agreement includes the following exhibits Landowner agrees to provide:

Exhibit A: Legal description of the real estate for which this Agreement applies ("Property").

Exhibit B: Location map(s) showing a location of the Property and an accurate location of each stormwater BMP affected by this Agreement.

Exhibit C: A List of all stormwater BMPs, including Manufacturer, Model, and locational reference to Exhibit B.

14. Headings. Headings in this Agreement are for convenience only and are not intended to interpret or construe its provisions.
15. Entire Agreement/Counterparts. This Agreement supersedes all agreements previously made between the parties relating to the subject matter. There are no other understandings or agreements between them. The parties may sign this Agreement in counterparts, which together shall comprise a single agreement, and the effective date for which is the date it is signed by both parties.
16. Authorization. Each of the parties represents and warrants to the other that this Agreement and its execution by the individual(s) on its behalf are authorized by the Village commission, the board of directors or other governing body or organizational agreement of that party.
17. Definitions. The terms set forth in this Agreement shall have the same meaning as commonly used, except any term that is defined under statutes, ordinances or laws identified above, or any other applicable state statute shall have the meaning set forth under that ordinance, statute or law, including any subsequent amendments.
18. Recording. The Village shall file this agreement with the Kalamazoo County Register of Deeds.

The parties hereto have executed this Agreement on the dates indicated below.

_____, Inc.
A Michigan Corporation
Address: _____

By:
Its:

By:
Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____,
20____, by _____ of _____,
a _____ Corporation, on behalf of the corporation.

Notary Public

County, Michigan
Acting in _____ County
My Commission Expires: _____

VILLAGE OF VICKSBURG
A Michigan Municipal Corporation
126 North Kalamazoo Avenue
Vicksburg, MI 49097

By:
Its:

By:
Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____,
20____, by _____ of _____,
a _____ Corporation, on behalf of the corporation.

Notary Public

County, Michigan
Acting in _____ County
My Commission Expires: _____

Prepared By:
insert individuals name
Village of Vicksburg
126 North Kalamazoo Avenue
Vicksburg, MI 49097
(269) 649-1919
09/08/17 (Revised: 2/17/21)

STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS & MAINTENANCE AGREEMENT

THIS AGREEMENT, effective _____, 20__, between the Village of Vicksburg, a Michigan municipal corporation, whose address is 126 North Kalamazoo Avenue, Vicksburg, Michigan 49097 (Village) and _____, [status of landowner; i.e. individual(s) or companies] whose address is _____ (Landowner).

Recitals:

- A. The Village is regulated under the U.S. Environmental Protection Agency's (EPA) Phase II Stormwater Program since it has a municipal separate storm sewer system (identified in the Performance Standards as MS4). Therefore, the Village is required to have a National Pollutant Discharge Elimination System (NPDES) Permit for its discharge of stormwater. The Michigan Department of Environmental Quality (MDEQ) administers the NPDES permit program for the State of Michigan (33 U.S.C. 1251 et seq., P.L. 92-500, 95-217) under Part 31, Water Resources Protection, of Michigan's "Natural Resources and Environmental Protection Act", 1994 PA 451 (NREPA).
- B. Landowner owns real estate in the Village at _____, Vicksburg, MI 490__ - Parcel No(s) _____ - and which is more specifically described in Exhibit A (Property).
- C. Landowner uses the Property for multi-family residential, commercial, industrial purposes, or a combination of those uses. Landowner is making improvements to the Property that requires approval under the Village's Site Plan Review process, or is modifying the existing stormwater discharge system on the Property that either impacts the Village's system or the retention of stormwater on the Property. As a result of those uses, improvements or modifications, Landowner agrees: (i) to install and maintain stormwater best management practices (BMPs) on the Property in accordance with approved plans and conditions; and (ii) to ensure that the BMPs continue serving the intended function in perpetuity.
- D. Before signing this Agreement the Landowner, including its representatives, contractors or agents, has reviewed or had the opportunity to review the Performance Standards, work sheets or other documents maintained by the Village relating to the Village's regulation of its Stormwater Program and this Agreement.

THEREFORE, in consideration of the above recitals and the covenants, conditions, and restrictions stated below, the parties agree as follows:

1. Recitals. The above recitals are acknowledged as true and correct, and are incorporated by reference into this paragraph.
2. Installation and Maintenance. Landowner is solely responsible for the installation, maintenance and repair of the stormwater BMPs.
3. Inspections and Repairs. Landowner shall regularly inspect, maintain, repair or replace the private stormwater BMPs consistent with the Manufactured Treatment Device (identified in the Performance Standards as MTD) as recommended by the manufacturer, and those recommendations provided in the “Low Impact Development Manual for Michigan – A Design Guide for Implementers and Reviewers” (Southeast Michigan Council of Governments and MDEQ, 2008), and “Michigan Nonpoint Source Best Management Practices Manual” (MDEQ, 2014).
4. Submittal of Reports. Landowner shall annually submit a report to the Village – on the form provided by the Village – regarding stormwater BMPs Operation & Maintenance for each of the MTDs and other BMPs. Landowner shall deliver the report to the Village’s Clerk either by mail to 126 North Kalamazoo Avenue, Vicksburg, MI 49097, via fax at 269-649-3997, or via e-mail to the current clerk, within 30 calendar days of the inspection date.
5. Modifications to the Stormwater System. Landowner shall contact the Village for approval prior to any design modifications to the stormwater treatment and/or conveyance system on the Property.
6. Village’s Access to the Property. Landowner, its successors and assigns, hereby grants the Village, its authorized agents and employees, the right to enter upon the Property to inspect the stormwater BMPs whenever the Village reasonably considers an inspection necessary in carrying out the intent and purpose of this Agreement. For example, an inspection may occur: (i) to follow-up on reported deficiencies in Landowner’s exercise of stormwater BMPs; or (ii) to address lack of submitted documentation Landlord is required to submit to the Village; or (iii) to respond to citizen complaints. The Village shall provide Landowner with copies of the inspection findings, including any directive to perform maintenance, repairs or replacements, if necessary, to the stormwater conveyance system on the Property.
7. Default by Landowner/Remedies. If Landowner fails to maintain the stormwater BMPs and associated stormwater conveyance system in good working condition acceptable to the Village, the Village may enter upon the Property and take whatever steps necessary to correct deficiencies, including those identified in the inspection report. Landowner is responsible to pay the costs the Village incurred for those repairs. The Village will provide an itemized list of the repairs in an

invoice to Landowner, which is due within 30 days of the date on the invoice. To secure any amount owed by Landowner to the Village under this Paragraph, the Village has the right to place a lien against the Property in the same manner as delinquent taxes, including accruing interest, penalties and administrative expenses until the lien is fully satisfied.

It is expressly understood and agreed that the Village is under no obligation to routinely inspect, maintain or repair the stormwater BMPs or stormwater conveyance system; and in no event shall this Agreement be construed to impose those obligations on the Village.

8. **No Liability of the Village.** This Agreement imposes no liability of any kind whatsoever on the Village and the Landowner agrees to hold the Village harmless from any liability if the stormwater BMPs and/or stormwater conveyance system failure to operate properly.
9. **Compliance with other Laws.** This Agreement does not replace or change the requirements of the Landowner to comply with all other applicable federal, state and local laws, rules and regulations; specifically including, without limitation, Chapter 398 of the Code of Ordinances (Stormwater Management).
10. **Binding Effect/Third Parties.** This Agreement is binding on and shall inure to the benefit of the parties to this Agreement and their respective successors. Neither party may assign this Agreement without the prior written consent of the other party. The parties do not intend to confer any benefits on any person, firm, corporation, or other entity which is not party to this Agreement.
11. **Governing Law.** This Agreement is governed under applicable Michigan law. Both parties had the assistance of or the opportunity to seek legal counsel regarding the signing of this Agreement. Therefore, no construction or ambiguity of this Agreement is resolved against either party.
12. **Waiver.** A party does not waive any of its rights under this Agreement if that party fails to complain about an act or omission by the other party, no matter the duration of that act or omission. And a waiver by either party, whether expressed or implied, of any breach of a provision in this Agreement is not considered a waiver or consent to any subsequent breach of this same or other provision.
13. **Exhibits.** This Agreement includes the following exhibits Landowner agrees to provide:

Exhibit A: Legal description of the real estate for which this Agreement applies ("Property").

Exhibit B: Location map(s) showing a location of the Property and an accurate location of each stormwater BMP affected by this Agreement.

Exhibit C: A List of all stormwater BMPs, including Manufacturer, Model, and locational reference to Exhibit B.

14. Headings. Headings in this Agreement are for convenience only and are not intended to interpret or construe its provisions.
15. Entire Agreement/Counterparts. This Agreement supersedes all agreements previously made between the parties relating to the subject matter. There are no other understandings or agreements between them. The parties may sign this Agreement in counterparts, which together shall comprise a single agreement, and the effective date for which is the date it is signed by both parties.
16. Authorization. Each of the parties represents and warrants to the other that this Agreement and its execution by the individual(s) on its behalf are authorized by the Village commission, the board of directors or other governing body or organizational agreement of that party.
17. Definitions. The terms set forth in this Agreement shall have the same meaning as commonly used, except any term that is defined under statutes, ordinances or laws identified above, or any other applicable state statute shall have the meaning set forth under that ordinance, statute or law, including any subsequent amendments.
18. Recording. The Village shall file this agreement with the Kalamazoo County Register of Deeds.

The parties hereto have executed this Agreement on the dates indicated below.

By:
Address: _____

By:

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, before me, a Notary Public in
and for said County, personally appeared _____,
insert applicable status (husband & wife) (a single man) (a single woman) _____
_____ known to me to be the same persons who executed the foregoing
Agreement and who acknowledged the same to be their free act and deed.

Notary Public

County, Michigan
Acting in _____ County
My Commission Expires: _____

VILLAGE OF VICKSBURG
A Michigan Municipal Corporation
126 North Kalamazoo Avenue
Vicksburg, MI 49097

By:
Its:

By:
Its:

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____,
20____, by _____ of _____,
a _____ Corporation, on behalf of the corporation.

Notary Public

County, Michigan
Acting in _____ County
My Commission Expires: _____

Prepared by:
insert individuals name
Village of Vicksburg
126 North Kalamazoo Avenue
Vicksburg, MI 49097
(269) 649-1919
09/08/17 (Revised: 2/17/21)

STORMWATER BEST MANAGEMENT PRACTICES OPERATIONS & MAINTENANCE AGREEMENT

THIS AGREEMENT, effective _____, 20__, between the Village of Vicksburg, a Michigan municipal corporation, whose address is 126 North Kalamazoo Avenue, Vicksburg, Michigan 49097 (Village) and _____, [status of landowner; i.e. individual(s) or companies] whose address is _____ (Landowner).

Recitals:

- A. The Village is regulated under the U.S. Environmental Protection Agency's (EPA) Phase II Stormwater Program since it has a municipal separate storm sewer system (identified in the Performance Standards as MS4). Therefore, the Village is required to have a National Pollutant Discharge Elimination System (NPDES) Permit for its discharge of stormwater. The Michigan Department of Environmental Quality (MDEQ) administers the NPDES permit program for the State of Michigan (33 U.S.C. 1251 et seq., P.L. 92-500, 95-217) under Part 31, Water Resources Protection, of Michigan's "Natural Resources and Environmental Protection Act", 1994 PA 451 (NREPA).
- B. Landowner owns real estate in the Village at _____, Vicksburg, MI 490__ - Parcel No(s) _____ - and which is more specifically described in Exhibit A (Property).
- C. Landowner uses the Property for multi-family residential, commercial, industrial purposes, or a combination of those uses. Landowner is making improvements to the Property that requires approval under the Village's Site Plan Review process, or is modifying the existing stormwater discharge system on the Property that either impacts the Village's system or the retention of stormwater on the Property. As a result of those uses, improvements or modifications, Landowner agrees: (i) to install and maintain stormwater best management practices (BMPs) on the Property in accordance with approved plans and conditions; and (ii) to ensure that the BMPs continue serving the intended function in perpetuity.
- D. Before signing this Agreement the Landowner, including its representatives, contractors or agents, has reviewed or had the opportunity to review the Performance Standards, work sheets or other documents maintained by the Village relating to the Village's regulation of its Stormwater Program and this Agreement.

THEREFORE, in consideration of the above recitals and the covenants, conditions, and restrictions stated below, the parties agree as follows:

1. *Recitals*. The above recitals are acknowledged as true and correct, and are incorporated by reference into this paragraph.
2. *Installation and Maintenance*. Landowner is solely responsible for the installation, maintenance and repair of the stormwater BMPs.
3. *Inspections and Repairs*. Landowner shall regularly inspect, maintain, repair or replace the private stormwater BMPs consistent with the Manufactured Treatment Device (identified in the Performance Standards as MTD) as recommended by the manufacturer, and those recommendations provided in the “Low Impact Development Manual for Michigan – A Design Guide for Implementers and Reviewers” (Southeast Michigan Council of Governments and MDEQ, 2008), and “Michigan Nonpoint Source Best Management Practices Manual” (MDEQ, 2014).
4. *Submittal of Reports*. Landowner shall annually submit a report to the Village – on the form provided by the Village – regarding stormwater BMPs Operation & Maintenance for each of the MTDs and other BMPs. Landowner shall deliver the report to the Village’s Clerk either by mail to 126 North Kalamazoo Avenue, Vicksburg, MI 49097, via fax at 269-649-3997, or via e-mail to the current clerk, within 30 calendar days of the inspection date.
5. *Modifications to the Stormwater System*. Landowner shall contact the Village for approval prior to any design modifications to the stormwater treatment and/or conveyance system on the Property.
6. *Village’s Access to the Property*. Landowner, its successors and assigns, hereby grants the Village, its authorized agents and employees, the right to enter upon the Property to inspect the stormwater BMPs whenever the Village reasonably considers an inspection necessary in carrying out the intent and purpose of this Agreement. For example, an inspection may occur: (i) to follow-up on reported deficiencies in Landowner’s exercise of stormwater BMPs; or (ii) to address lack of submitted documentation Landlord is required to submit to the Village; or (iii) to respond to citizen complaints. The Village shall provide Landowner with copies of the inspection findings, including any directive to perform maintenance, repairs or replacements, if necessary, to the stormwater conveyance system on the Property.
7. *Default by Landowner/Remedies*. If Landowner fails to maintain the stormwater BMPs and associated stormwater conveyance system in good working condition acceptable to the Village, the Village may enter upon the Property and take whatever steps necessary to correct deficiencies, including those identified in the inspection report. Landowner is responsible to pay the costs the Village incurred for those repairs. The Village will provide an itemized list of the repairs in an

invoice to Landowner, which is due within 30 days of the date on the invoice. To secure any amount owed by Landowner to the Village under this Paragraph, the Village has the right to place a lien against the Property in the same manner as delinquent taxes, including accruing interest, penalties and administrative expenses until the lien is fully satisfied.

It is expressly understood and agreed that the Village is under no obligation to routinely inspect, maintain or repair the stormwater BMPs or stormwater conveyance system; and in no event shall this Agreement be construed to impose those obligations on the Village.

8. **No Liability of the Village.** This Agreement imposes no liability of any kind whatsoever on the Village and the Landowner agrees to hold the Village harmless from any liability if the stormwater BMPs and/or stormwater conveyance system failure to operate properly.
9. **Compliance with other Laws.** This Agreement does not replace or change the requirements of the Landowner to comply with all other applicable federal, state and local laws, rules and regulations; specifically including, without limitation, Chapter 398 of the Code of Ordinances (Stormwater Management).
10. **Binding Effect/Third Parties.** This Agreement is binding on and shall inure to the benefit of the parties to this Agreement and their respective successors. Neither party may assign this Agreement without the prior written consent of the other party. The parties do not intend to confer any benefits on any person, firm, corporation, or other entity which is not party to this Agreement.
11. **Governing Law.** This Agreement is governed under applicable Michigan law. Both parties had the assistance of or the opportunity to seek legal counsel regarding the signing of this Agreement. Therefore, no construction or ambiguity of this Agreement is resolved against either party.
12. **Waiver.** A party does not waive any of its rights under this Agreement if that party fails to complain about an act or omission by the other party, no matter the duration of that act or omission. And a waiver by either party, whether expressed or implied, of any breach of a provision in this Agreement is not considered a waiver or consent to any subsequent breach of this same or other provision.
13. **Exhibits.** This Agreement includes the following exhibits Landowner agrees to provide:

Exhibit A: Legal description of the real estate for which this Agreement applies ("Property").

Exhibit B: Location map(s) showing a location of the Property and an accurate location of each stormwater BMP affected by this Agreement.

Exhibit C: A List of all stormwater BMPs, including Manufacturer, Model, and locational reference to Exhibit B.

14. Headings. Headings in this Agreement are for convenience only and are not intended to interpret or construe its provisions.
15. Entire Agreement/Counterparts. This Agreement supersedes all agreements previously made between the parties relating to the subject matter. There are no other understandings or agreements between them. The parties may sign this Agreement in counterparts, which together shall comprise a single agreement, and the effective date for which is the date it is signed by both parties.
16. Authorization. Each of the parties represents and warrants to the other that this Agreement and its execution by the individual(s) on its behalf are authorized by the Village commission, the board of directors or other governing body or organizational agreement of that party.
17. Definitions. The terms set forth in this Agreement shall have the same meaning as commonly used, except any term that is defined under statutes, ordinances or laws identified above, or any other applicable state statute shall have the meaning set forth under that ordinance, statute or law, including any subsequent amendments.
18. Recording. The Village shall file this agreement with the Kalamazoo County Register of Deeds.

The parties hereto have executed this Agreement on the dates indicated below.

_____, L.L.C.
A Limited Liability Company
Address: _____

By:
Its:

By:
Its:

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____ of _____, a Limited Liability Company, on behalf of the company.

VILLAGE OF VICKSBURG
A Michigan Municipal Corporation
126 North Kalamazoo Avenue
Vicksburg, MI 49097

By: _____
Its: _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____ of _____, a _____ Corporation, on behalf of the corporation.

Prepared by:
insert individuals name
Village of Vicksburg
126 North Kalamazoo Avenue
Vicksburg, MI 49097
(269) 649-1919
09/08/17 (Revised: 2/17/21)

Chapter 16 – Stormwater Design Standards

Village of Vicksburg

National Pollution Discharge Elimination System

April 2023

SECTION 19

STORMWATER DESIGN STANDARDS

19.01 INTRODUCTION

This document provides Design Standards related to stormwater quality management throughout the Village of Vicksburg (Village), Michigan. The objectives of this document are to define technical standards for site development to protect surface water quality by establishing acceptable stormwater quality management strategies throughout the Village. The Standards are designed to be consistent with the objectives of the Village's municipal separate storm sewer system (MS4) National Pollutant Discharge Elimination System (NPDES) Permit Certificate of Coverage.

These Standards were developed primarily for use of the Site Plan Review and to supplement the Village's Stormwater Management Ordinance (Chapter 398 of the Village of Vicksburg Code of Ordinances).

The objectives of the Stormwater Management Ordinance are to provide environmental protection to surface waters by regulating discharges into the Village's stormwater system, and provide the Village with specific legal authority to find and eliminate illicit stormwater connections and discharges.

This document includes a variety of Best Management Practices (BMPs) related to groundwater and surface water protection and are considered commonly-accepted practices associated with groundwater and/or surface water protection. These BMPs were derived from a variety of sources, including "Low Impact Development Manual for Michigan - A Design Guide for Implementers and Reviewers" (SEMCOG, 2008), and "Michigan Nonpoint Source Best Management Practices Manual" (MDEQ, 2014).

19.02 STORMWATER MANAGEMENT CRITERIA

The general objectives of stormwater quality management in the Village are to achieve predevelopment conditions with respect to stormwater runoff rates and volume to reduce/control flooding, maintain or increase the quality of surface water and groundwater resources and maintain compliance with its Municipal Separate Storm Sewer System (MS4) Stormwater Program National Pollutant Discharge Elimination System (NPDES) Permit and associated Certificate of Coverage (COC). It is also recognized that the quality and sustainability of the Village's drinking water (groundwater) resources can depend to some extent on the management of stormwater runoff.

Some general strategies for minimizing stormwater volume and improving stormwater quality management that should be included wherever possible are listed below:

- Accommodate stormwater that complements the natural drainage patterns, maintains the integrity of stream channels for both their drainage and biological functions, and protects wetlands.
- Reduce or maintain impervious surface area.
- Prevent erosion and sedimentation.
- Provide naturalized stormwater treatment for parking lot runoff using bioretention basins, rain gardens, filter strips, and/or other practices that can be integrated into landscaped areas and traffic islands where allowed and appropriate.
- Direct rooftop runoff to pervious areas such as yards, open areas, or vegetated areas (e.g., rain gardens), thus avoiding rooftop runoff to the roadway and stormwater collection system.
- Use native vegetation, where practical, to reduce the need for chemical applications and to enhance plant root absorption of infiltrated stormwater. Non-vegetative stormwater treatment structures will be incorporated, if naturalized treatment systems are not practical or consistent with the Standards discussed below.
- Maintain or increase groundwater recharge by allowing non-polluted stormwater infiltration in designated areas.

19.03 KEY DEFINITIONS

Best Management Practice (BMP): A structural or non-structural practice or combination of practices that are designed to prevent or reduce stormwater runoff and/or associated pollutants.

Bioretention (Rain Gardens): Shallow surface depressions planted with specially selected native vegetation to capture and treat stormwater runoff from rooftops, parking lots, and streets.

Buffer Strip: A defined zone of selected plantings along a surface water features capable of filtering stormwater.

Catch Basin: A solid-walled stormwater inlet to the stormwater collection system that includes a sump to capture coarse sediments.

Channel Protection Performance Standard: Criteria that requires maintaining at the post-development project site runoff volume and peak flow rate at or below pre-development levels for all storms up to the 2-year.24-hour event

Constructed Filter: Structures or an excavated area containing a layer of sand, compost, organic material peat, or other media that reduces pollutant levels in stormwater runoff by filtering sediments, metals, hydrocarbons, and other pollutants.

Detention: The temporary storage of stormwater runoff to control peak discharge rates and provide gravity settling of sediments.

Detention Basin: A constructed basin that temporarily stores water before discharging into a surface water feature (e.g., dry basin: <24 hour drain-time; extended dry basin: 24-40 hours drain time; and wet detention basin: permanent pool of water).

First Flush: The delivery of a highly concentrated pollutant loading during the early stages of a storm due to the washing effect of runoff on pollutants that accumulated on the land.

Flood Control Volume: The stormwater volume detained or infiltrated to protect downstream areas from flooding.

Green Roofs: Conventional rooftops that include a thin covering of vegetation allowing the roof to function more like a vegetated surface.

Groundwater Recharge: The replenishment of existing natural water bearing subsurface layers of porous stone, sand, gravel, silt or clay via infiltration.

Impervious Surface: A surface that prevents the infiltration of water into the ground such as roofs, streets, sidewalks, driveways, parking lots, and highly compacted soils.

Infiltration Practices: Natural or constructed land areas using permeable soils that capture, store, and infiltrate the volume of stormwater runoff into surrounding soil. Examples include but are not limited to dry wells, infiltration basins, infiltration trenches, and subsurface infiltration beds.

Infiltration/Retention Basin: A facility without a positive outlet in which stormwater runoff is collected and allowed to infiltrate into the ground.

Manufactured Treatment Devices (MTDs): A pre-fabricated stormwater treatment structure utilizing settling, filtration, absorptive/absorptive materials, vortex separation (hydrodynamic separator), vegetative components, and/or other appropriate technology to remove pollutants from stormwater runoff.

New Jersey Corporation for Advanced Technology (NJCAT) Program: A private/public partnership that pools the best talents and diverse resources of

business and industry, entrepreneurs, university research centers, utilities and government to promote the development and commercialization of exciting, new energy and environmental technologies, including the verification of stormwater MTDs.

New Jersey Department of Environmental Protection (NJDEP) Standard for Manufactured Treatment Devices: A list of third-party certified Manufactured Treatment Devices (MTDs) that were laboratory and/or filed tested by the NJCAT Program and approved by the NJDEP to serve as acceptable BMPs. The most current listing available will be used as the list of acceptable MTDs for use in the Village of Vicksburg for removing pollutants from stormwater runoff.

Peak Discharge Rate: The maximum instantaneous rate of flow (volume of water passing a given point over a specific duration (such as cubic feet per second) during a storm, usually in reference to a specific design storm event.

Pervious Pavement: Infiltration technique that combines stormwater infiltration, storage, and structural pavement consisting of a permeable surface underlain by a storage reservoir.

Pretreatment: The additional measures taken to protect groundwater and/or surface water quality by removing pollutants from collected stormwater beyond those required to adequately collect and remove stormwater. Typically, pretreatment is accomplished by a BMP designed to provide controlled removal of oils and grease, coarse to fine sediments, and may provide for a containment area in the case of an accidental spill or other release.

Runoff: That portion of precipitation that does not infiltrate or evaporate but runs off to a surface water feature or stormwater collection system.

Sediment Basin: A man-made depression in the ground surface where runoff is collected and stored to allow suspended solids to settle out. Sediment basins may be wet or dry.

Sediment Forebay: A small, separate storage area located upstream to the inlet to a stormwater facility used to trap and settle incoming sediments.

Sediment Sump: A constructed sump or surface depression used to trap and settle incoming sediments. Generally smaller than a sediment basin or forebay.

Spill Containment Cell: A BMP designed to provide controlled removal of oils and grease, coarse to fine sediments, and other subject pollutants to protect groundwater and surface water resources, and to provide for a containment area in the case of a spill or other pollutant release.

Spill Containment Volume: The containment volume of stormwater required to protect groundwater and surface water from a release of regulated substances.

Stormwater Filter: An open drainage channel or depression, explicitly designed to filter runoff through a self-contained bed of sand to provide water quality treatment and spill containment.

Vegetated Filter Strip: A permanent, maintained strip of vegetation designed to slow runoff velocities and filter out sediment and other pollutants from stormwater

Water Quality Swale: An open drainage channel or depression with an impermeable liner, explicitly designed to filter runoff through a self-contained bed of sand to provide water quality treatment and spill containment.

Water Quality Treatment Volume Standard: Criteria that requires a stormwater treatment volume that is intended to reduce or prevent water quality impacts of stormwater runoff by capturing and treating the initial "first flush" volume expected to contain the majority of pollutants.

19.04 STORMWATER DESIGN STANDARDS

The preferred method of stormwater management within the Village is for Landowners to maintain their stormwater on-site and utilize infiltration. Infiltration systems should be designed to accommodate the 100-yr storm event.

For all projects with off-site stormwater discharges, the Stormwater Standard 1: Water Quality Treatment Volume Worksheet and the Stormwater Standard 2: Channel Protection Volume Worksheet is required to be completed.

Also, if Manufactured Treatment Devices (MTDs) are being proposed for the site, the (MTD) Worksheet is required. In addition, the following information must also be provided on the Site Plan or as an attachment to the Site Plan: Percentage and volume of stormwater runoff proposed to be infiltrated; percentage and volume of stormwater runoff to be discharged to Village storm sewer; percentage and volume of stormwater runoff to be discharged *directly* to surface water: and off-site surface water features (river, creek, pond) to *directly* receive stormwater runoff.

All Landowner making improvements to the Property that requires approval under the Village's Site Plan Review process (multi-family residential, commercial, industrial purposes, or a combination of those uses, etc.), or is modifying the existing stormwater discharge system on the Property that either impacts the Village's system or the retention of stormwater on the Property shall execute a Stormwater Best Management Practices Operations & Maintenance Agreement.

The purpose of such document is for the Landowner (i) to install and maintain stormwater best management practices (BMPs) on the Property in accordance with approved plans and conditions; and (ii) to ensure that the BMPs continue serving the intended function in perpetuity.

19.04.01 Stormwater Standard 1 – Water Quality Treatment Volume

A water quality treatment volume of one-inch generated from the entire site that contributes to runoff is required for all sites, and parking areas. One inch also equals the 90 Percent Non-Exceedance Storm based on the closest weather station (Gull Lake).

To calculate the *volume* in cubic feet of one inch of stormwater runoff: Multiply area contributing stormwater runoff (square feet) by 1/12 feet (0.083).

For the purpose of selecting the appropriate size of a stormwater Manufactured Treatment Device (MTD), the Water Quality Treatment *Flow Rate* (W_q) shall be calculated based on the Rational Method Equation: $W_q = CIA$, where

W_q = Discharge in cubic feet per second (cfs)

C = Runoff coefficient depending on the characteristics of the drainage area

I = Rainfall intensity in inches/hour

A = Drainage area in acres

The runoff coefficient (C) shall be a weighted average that is based on the percentage of different surface types shown in the Stormwater Standard 1: Water Quality Treatment Volume Worksheet.

The rainfall intensity (I) to be used shall be 1.44 inches/hour (using 0.72 inches of the 1-year/30- minute storm for the area that represents a treatment volume equivalent to the 90 percent annual non-exceedance storm)

The drainage area (A) means the entire upstream land area which drains to and from that location (in acres).

In addition:

- The MTD shall be designed to treat 100% of the flow without bypass at the calculated water quality treatment flow rate.
- The storm pipe shall be designed at a 10-year storm event.
- The MTD shall have the capacity to handle the designed 10-year storm pipe flows without losing floatables or sediment.

Village-approved catch basin inserts may only be used on sites as a water quality treatment BMP and when hydrodynamic separators and other BMPs are not physically practical due to site characteristics, such as depth to storm sewer, hydraulics, etc.

To meet the objective of Standard 1, the BMP method(s) selected to treat the water quality volume shall be designed on a site-specific basis to achieve a minimum of 80 percent removal of Total Suspended Solids (TSS), as compared with uncontrolled runoff, or a discharge concentration of TSS that does not exceed 80 mg/L. Many BMPs are sufficient individually to achieve the required removal of TSS, or compliance can also be achieved through the use of a system of BMPs that communally, reach the 80% reduction factor. If MTDs are selected as BMPs, they are required to be NJCAT verified and NJDEP certified to satisfy the Water Quality Treatment Volume Standard. The model/size of the certified unit shall be selected on the basis to effectively pre-treat stormwater at the calculated water quality now rate. The NJDEP 50% Certified TSS Removal Rate approximates 80% net TSS reduction for the Kalamazoo region.

The effective removal of TSS and implementation of other stormwater control strategies by other proposed BMPs will be estimated by reference sources such as: "Low Impact Development Manual for Michigan," SEMCOG, 2008; "Non-Point Source Best Management Practices Manual," MDEQ, 2014; "Urban Runoff BMP Pollutant Load Reduction Worksheet Calculator," MDEQ, 1999; and any other Village of Vicksburg acceptable industry standard technical manuals used for estimating stormwater pollutant load reductions by BMPs. The Stormwater Standard 1: Water Quality Treatment Volume Worksheet must be prepared and submitted to demonstrate compliance with this Standard.

19.04.02 Stormwater Standard 2 – Channel Protection Volume

A Channel Protection Performance Standard is required to maintain the post-development project site *runoff volume and peak flow rate* at or below pre-development levels for all storms up to the 2-year, 24-hour event, or 2.37 inches (Source: Rainfall Frequency Atlas of the Midwest, Bulletin 71, Midwestern Climate Center, 1992). If the post-development volume of runoff is equal to or less than the volume of runoff from the existing site then the channel protection performance standard is met. The intent of the Channel Protection Performance Standard is to prevent excess sediment and channel instability caused by the increased rate and volume of stormwater runoff that can result from development.

Compliance with this requirement is determined by calculating the existing ("pre-development") and post-development runoff volume and rate for the 2-year and smaller events. If the post-development volume or rate exceeds the existing volume or rate, then appropriate controls or design changes shall be implemented to make post-development runoff volume and rate equal to or less than the existing levels for all storms up to the 2-year, 24-hour event. If site conditions

challenge or prohibit feasibility of meeting this standard, the applicant should consider the incorporation of green infrastructure requirements. If extended detention is used as a post-construction stormwater runoff control, additional BMPs will likely be needed to maintain the pre-development volume and peak rate levels for all storms up to the 2-year, 24-hour event. The Rational Method Equation will be used to calculate whether BMPs are necessary to meet the Channel Protection Performance Standard.

The appropriate use, implementation, and estimated effectiveness stormwater control strategies by proposed BMPs will be determined by reference sources such as: "Low Impact Development Manual for Michigan," SEMCOG, 2008, and "Non-Point Source Best Management Practices Manual," MDEQ, 2014, and any other Village of Vicksburg acceptable industry standard technical manuals. The Stormwater Standard 2: Channel Protection Volume Worksheet is required to demonstrate compliance with this Standard.

19.04.03 Stormwater Standard 3 – Flood Control

A flood control performance standard is required to ensure stormwater entering the Village MS4 is $\leq$ than the existing (pre-development) conditions and on-site retainage is properly designed to protect neighboring properties. The Village Engineer or designee will review each site plan for approval on a case-by-case basis to determine if the proposed strategy meets industry standards and is appropriate for the specific site.

19.05 **MANUFACTURED TREATMENT DEVICES (MTDs)**

If Manufactured Treatment Devices (MTDs) are proposed to be used, the MTD Worksheet is required to be prepared and submitted to determine compliance with these Standards. In addition, a Stormwater Best Management Practice Operations and Maintenance Agreement between the Village and the Landowner or Designee is required

19.05.01 Catch Basin/Inlet Inserts

Only by review and approval of the Village, a site may be allowed to use Village-approved catch basin inlet inserts that provide treatment through vertical (gravity-based) flow *only*. These systems require a suitable treatment media (filter) for the subject contaminants of concern at the subject site. Typically, these systems are used for small higher-risk sites (e.g., gasoline stations or larger parking lots) where the larger hydrodynamic separators are not practical. Detailed hydraulic calculations shall be provided to demonstrate that the system will treat the first one inch of rainfall (the first flush) and have the capacity to allow flows from the 10-year storm to pass without causing surface ponding.

19.05.02 Hydrodynamic Separators

Many proprietary stormwater systems may not achieve full spill containment volumes as a stand-alone practice. Proprietary stormwater treatment systems can be used alone or in combination with other BMPs to meet the treatment criteria. Acceptable proprietary stormwater treatment systems must be NJCAT verified and NJDEP certified. See the Manufactured Treatment Device requirements in the Stormwater Standard 1 section.

19.06 “HOT SPOTS” PROPERTIES

If the subject property is a potential “Hot Spot” area with the potential for significant pollutant loading or with the potential for contaminating public water supply (wells), additionally site-specific requirements may apply to address the contaminate(s) of concern. Example of typical “hot spots” areas included, but not limited to gas stations, commercial vehicle maintenance and repair, auto recyclers, recycling centers, and scrap yards.

19.07 CONTAMINATED PROPERTIES

If the subject property contains soil and/or groundwater contamination, site-specific requirements may apply. See MDEQ Post-Construction Storm Water Runoff Controls Program Compliance Assistance Document (MDEQ, 2014) for specifics regarding stormwater. The property owner or the property owner’s representative shall contact the Kalamazoo District MDEQ Office Remediation and Redevelopment staff prior to approval of the site plan for answers to questions regarding all state environmental regulations and requirements pertaining to site specific requirements. Property owner shall provide documentation and supporting material to the Village regarding aforementioned contact and MDEQ requirements prior to approval. The Village will make any site plan approval contingent to the property owner meeting the MDEQ requirements.

STORMWATER STANDARD 1: WATER QUALITY TREATMENT VOLUME WORKSHEET	
Option 1: Based on Volume Calculation	
Applies to all development/re-development sites and parking lots	
Developer must treat first 1-inch of stormwater runoff to remove 80% of total suspended solids (TSS) and any other identified pollutant of concern. One-inch of runoff also equals the 90% non-exceedance storm, based on the closest weather station (Gull Lake).	
	Result
1. Calculate the <i>volume</i> of one inch of stormwater runoff, multiply area contributing runoff (ft² by 1/12 foot (0.083)).	ft ³
2. List and provide a Figure showing the locations of all proposed BMPs to meet the Water Quality Treatment Volume.	BMP Treatment Volume (ft³)
Constructed Wetlands	
Wet Ponds/Retention Basins	
Extended Detention / Dry Pond	
Vegetated Filter Strip	
Vegetated Filter Swale	
Constructed Filters	
Vegetated Roofs	
Other (List)	
Total Treatment Volume (ft³):	
If Treatment Volume ≥ 1-inch volume for the project site, Stormwater Standard 1 is met.	
3. A signed Stormwater Best Management Practices Operations & Maintenance Agreement between the Village and the Landowner or Designee is required (Village Form provided).	
PROJECT NAME:	
PROJECT ADDRESS:	DATE:

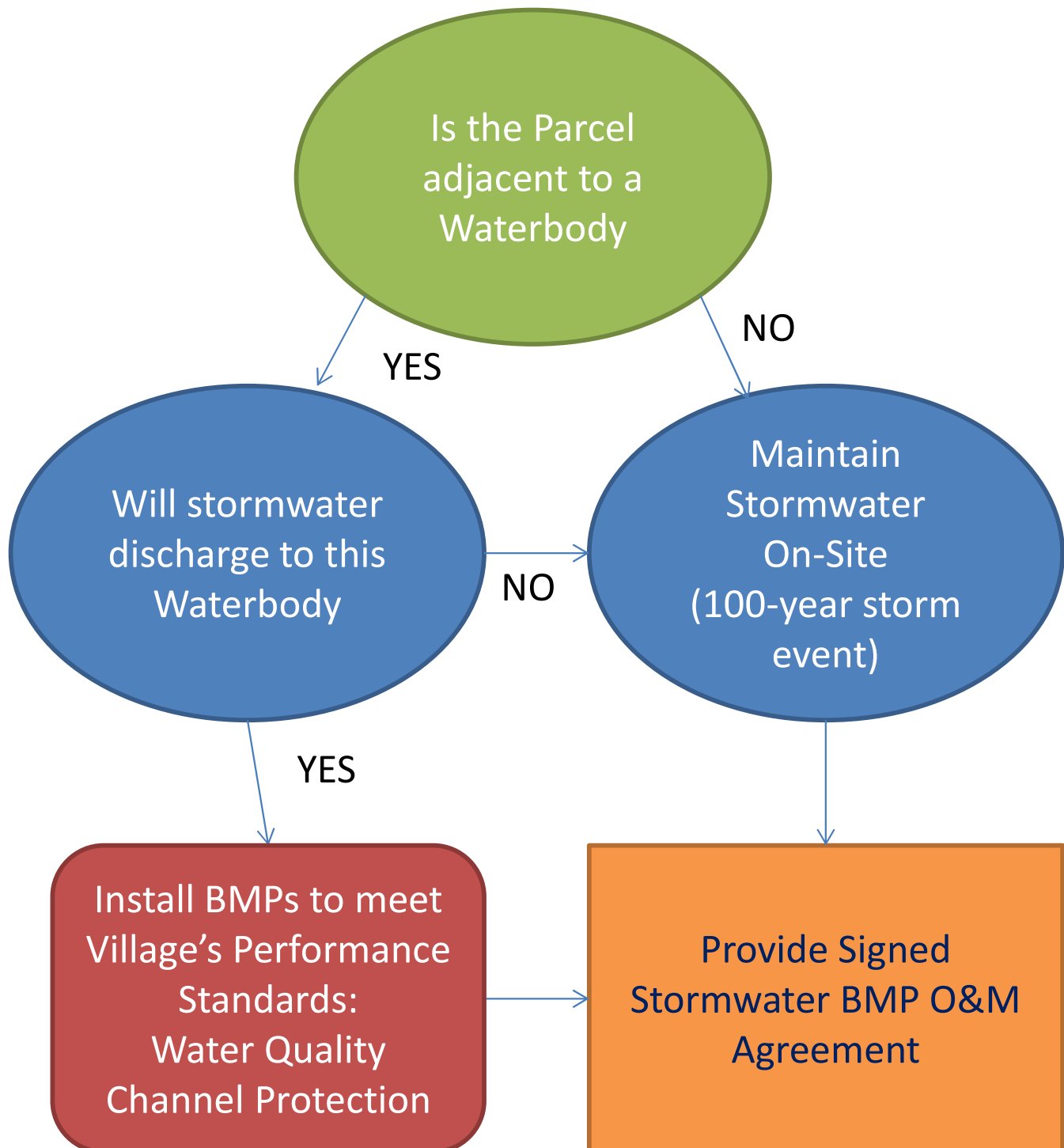
STORMWATER STANDARD 1: WATER QUALITY TREATMENT VOLUME WORKSHEET	
Option 2: Based on Flow-Rate Calculation (MTD)	
Applies to all development/re-development sites and parking lots	
	Result
The Rational Method Equation will be used to calculate BMP design flow rates: $Wq = CIA$, where C = Runoff Coefficient; I = Rainfall Intensity (inches per hour); A = Drainage Area (Acres)	
1. Calculate Area (A) of the site in square feet and divide by 43,560 ft ² .	acres
2. Rainfall intensity (I) in inches/hour by using 1.44 inches/hour (1-year/30 minute storm).	1.44 inches/hour
3. Calculate Runoff Coefficient by using a weighted average that is based on the appropriate percentage of different surface types existing at the site. Runoff Coefficient ranges for various ground cover are shown in table below.	
4. Use the Rational Method Equation: $Wq = \text{Area (acres)} \times 1.44 \text{ inches/hour} \times \text{Runoff Coefficient} =$	ft ³ /sec
	(treatment rate)
Simplified Table of Rational Method Runoff Coefficients (C)	Runoff Coefficient, c
Surface Cover	0.1
Lawns	0.15
Forest	0.25
Cultivated land/gardens	0.3
Meadow	0.9
Asphalt Streets and parking lots	0.8
Brick Streets	0.9
Roofs	0.9
Concrete street and parking lots	
5. List and provide a Figure showing the locations of all proposed BMPs to meet the Water Quality Treatment Volume.	BMP Treatment Rate (ft³/sec)
Manufactured Treatment Device (MTD) (e.g. Hydrodynamic Separators)[See MTD WORKSHEET]	
Other (List)	
Total Treatment Rate (ft³/sec):	
If MTD Certified Treatment Rate ≥ Calculated Rate for the project site, Stormwater Standard 1 is met.	
6. A signed Stormwater Best Management Practices Operations & Maintenance Agreement between the Village and the Landowner or Designee is required (Village Form provided).	
PROJECT NAME:	
PROJECT ADDRESS:	DATE:

MANUFACTURED TREATMENT DEVICE WORKSHEET	
Applies to all projects that propose to use Manufactured Treatment Devices (MTDs).	
1. All MTDs must be verified by the New Jersey Corporation for Advance Technology (NJCAT) and certified by the New Jersey Department of Environmental Protection (NJDEP)	
2. The NJDEP 50% Certified TSS Removal Rate approximates 80% TSS reduction for the Kalamazoo area (the required TSS removal rate)	
3. All MTDs are based on treatment flow rates. The required MTD flow rate will be determined by the completion of the Stormwater Standard 1: Water Quality Treatment Volume Worksheet.	
4. The MTS shall be designed to treat 100% of the flow without bypass at the calculated water quality treatment flow rate.	
5. The storm pipe shall be designed at a 10-year storm event	
6. The MTD shall have the capacity to handle the design 10-year storm pipe flows without losing floatables or sediment.	
7. MTD Selection Details	Result
Selected MTD Manufacturer(s)	
Selected MTD Manufacturer Model(s)	
Selected MTD Water Quality Treatment Flow Rate(s) (cfs)	
Cumulative MTD Water Treatment Flow Rate	
Total BMP Treatment Flow Rate from Water Quality Volume Worksheet	
Required Water Quality Treatment Volume from Water Quality Volume Worksheet	
NJDEQ Certified Flow Rate for selected manufacturer and model selection	
8. A signed Stormwater Best Management Practices Operations & Maintenance Agreement between the Village and the Landowner or Designee is required (Village Form provided).	
PROJECT NAME:	
PROJECT ADDRESS:	DATE:

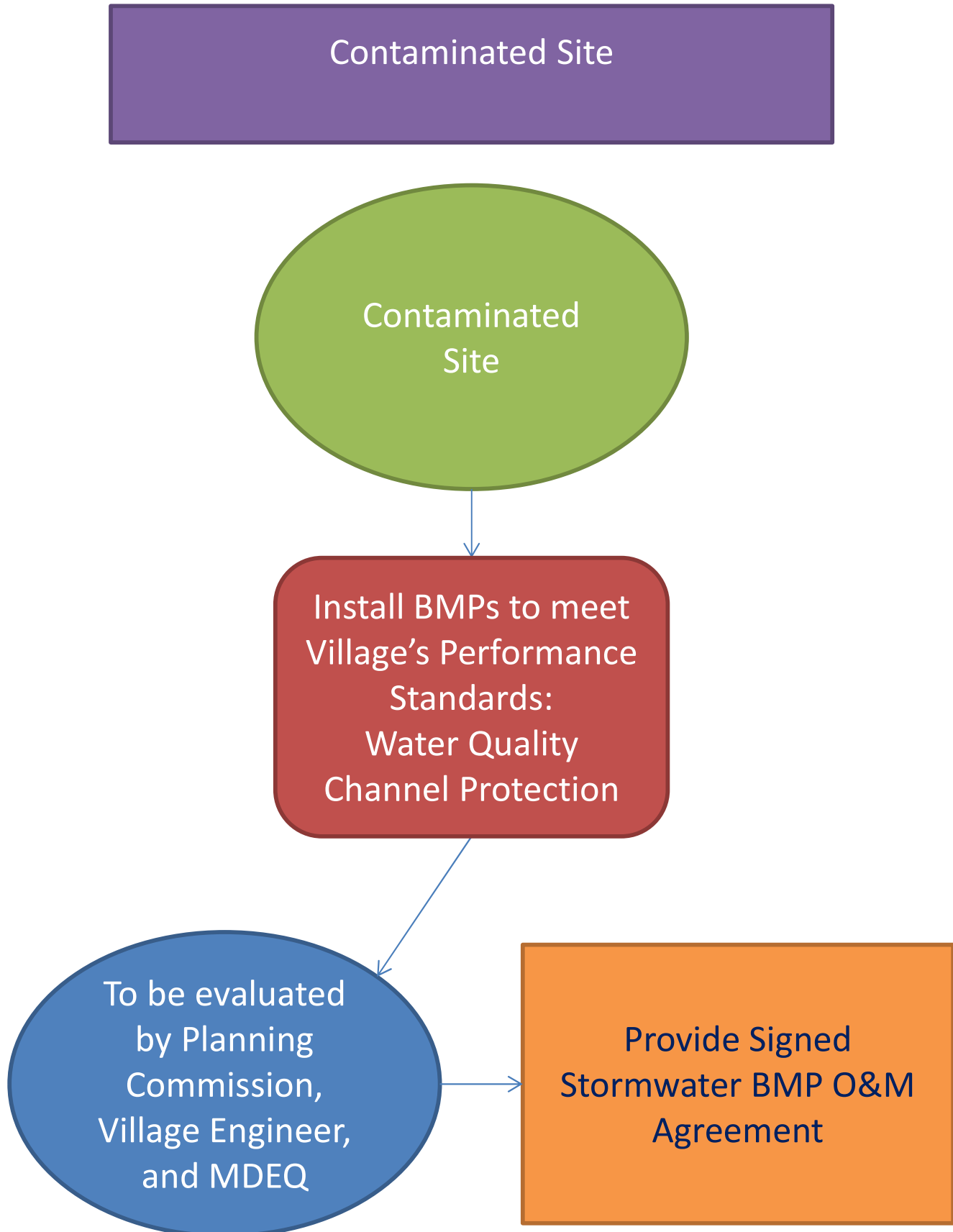
STORMWATER STANDARD 2: CHANNEL PROTECTION VOLUME WORKSHEET	
Applies to all development/re-development sites and parking lots	
	Result
1. Calculate pre-development stormwater runoff volume.	ft ³
2. Calculate post-development stormwater runoff volume.	ft ³
3. Difference in pre and post development stormwater runoff volume.	ft ³
If post-development stormwater runoff volume is $\leq$ pre-development stormwater runoff volume, Stormwater Standard 2 is met (#4 and #5 below are not necessary)	
If post-development stormwater runoff volume is $>$ pre-development stormwater runoff volume, appropriate controls/BMPs or site design changes have to be implemented to make post-development runoff volume and rate $\leq$ the site pre-development levels for all storms up to the 2-year, 24-hour event, or 2.37 inches.	
4. Calculate the <i>volume</i> of 2.37 inches of stormwater runoff by multiplying area contributing runoff (ft²) by 0.2 feet	ft ³
5. List and provide a Figure showing the locations of all proposed BMPs to meet the Channel Protection Volume.	BMP Treatment Volume (ft³)
Bioretention (e.g. rain gardens)	
Vegetated Filter Strip	
Vegetated Filter Swale	
Vegetated Roofs	
Infiltration Basin	
Infiltration Trench	
Subsurface Infiltration Bed	
Dry Well	
Pervious Pavement	
Capture/Reuse	
Other (List)	
Total Protection Volume (ft³):	
If Protection Volume $\geq$ 2.37 inches for the project site, Stormwater Standard 2 is met.	
6. A signed Stormwater Best Management Practices Operations & Maintenance Agreement between the Village and the Landowner or Designee is required (Village Form provided).	
PROJECT NAME:	
PROJECT ADDRESS:	DATE:

Stormwater Criteria Flow Chart

Vacant Undeveloped Parcel
(Commercial / Industrial / Multi-Family)



Stormwater Criteria Flow Chart



Stormwater Criteria Flow Chart

Plats, Condos, PUD,
or Similar Development

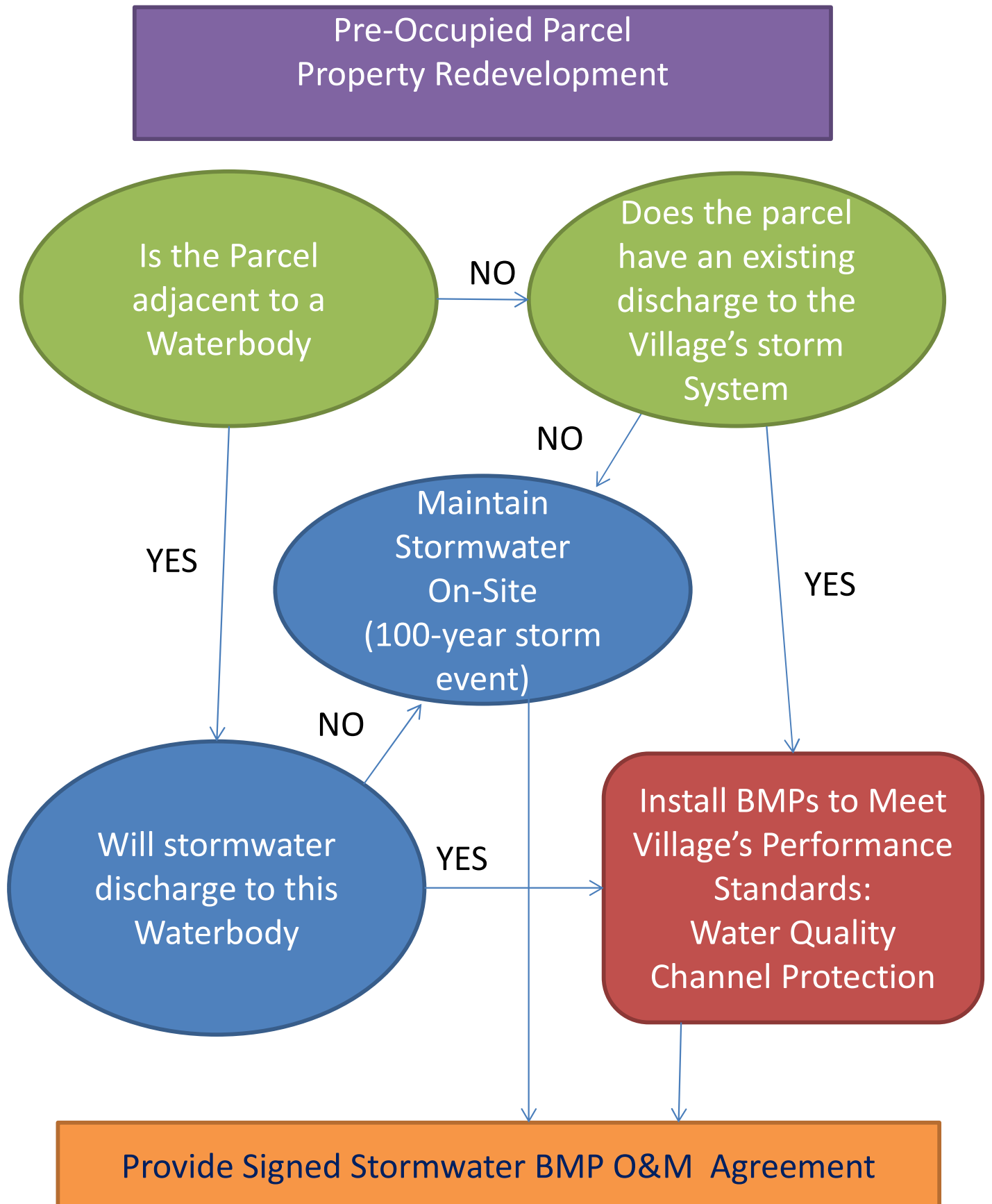
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graph TD; A[Plats, Condos, PUD, or Similar Development] --> B((Streets and Storm Discharges)); B --> C[Public / Private Streets Curb and Gutter Public Storm Discharge to Retention Basin]; B --> D[Retention Basins Designed, Constructed and Dedicated to KCDC]; C --> D;
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Streets and
Storm Discharges

Public / Private Streets
Curb and Gutter
Public Storm
Discharge to Retention
Basin

Retention Basins
Designed, Constructed
and Dedicated to KCDC

Stormwater Criteria Flow Chart



SECTION 10

SPECIFICATIONS FOR DRAINAGE

10.01 STORM SEWER FACILITIES

Storm sewer facilities located in the road right-of-way shall become the property of the Village of Vicksburg. Storm sewer facilities located outside the road right-of-way may become the property of the Kalamazoo County Drain Commission (KCDC). The following storm sewer system requirements are established as minimums necessary to meet the concerns of the Village of Vicksburg. Meeting these requirements does not in any way substitute for the necessity for obtaining any required permit from and meeting all requirements of, other regulatory agencies, including the Kalamazoo County Drain Commissioner and the Michigan Department of Environmental Quality.

10.02 STORM SEWER DESIGN CRITERIA

10.02.01 Storm sewer collector system design shall be based on a ten-year frequency design rainfall event with a minimum time of concentration equal to 15 minutes, at the ultimate design imperviousness. A complete engineering analysis supporting the design concept utilized will be required for all developments and must be submitted with construction plans.

10.02.02 The storm sewer system shall have a positive outlet. If a natural outlet area is not available, a storm water disposal retention area must be constructed.

10.02.03 The maximum surface run for storm water in streets or pavement shall be no longer than 300 feet. The surface run shall not be longer than 200' for street grades exceeding 4%. For the purpose of storm sewer cleanout, structures must be placed no further than 400' apart. Drainage structures must be provided at the highest end of radii where drainage may cross an intersected roadway.

10.02.04 Drainage structures must be constructed with 2' sumps.

10.02.05 During construction and until the Village approves its removal, all drainage structures must be protected from receiving sediment bearing run-off. Inlets shall be covered with an approved filter fabric or other approved method to eliminate soils from infiltrating into the storm sewer system. Routine cleaning of the fabric while it is in place must be accomplished as needed by the Proprietor.

10.02.06 Reinforced Concrete Pipe or Smooth-Lined Corrugated Plastic Pipe conforming to Village of Vicksburg "Section 5, Specifications for Storm Sewer", of appropriate size and class is acceptable. Storm sewer less than 12" diameter

shall not be permitted. For plastic pipe the following additional requirements apply. When using plastic pipe, a minimum of 3' of earth cover must be maintained over top of pipe. All installed pipes may be subject to testing per MDOT specifications; documentation of testing must be submitted to the Village of Vicksburg. Typical tests include mandrel, television inspection and backfill compaction. Tests shall be completed prior to paving.

- 10.02.07 Concrete pipe joints must be sealed with cold applied bituminous sealer, flexible watertight rubber gaskets or external-type rubber gaskets. Plastic pipe must have a premium joint sealing system per current MDOT specifications.
- 10.02.08 Only under very special circumstances, leaching basins will be allowed. A full written justification must be submitted with the plans if they are proposed for use. A suggested leaching basin detail may be obtained from the Village of Vicksburg.
- 10.02.09 Edge drains may be required by the Village's Engineer as soil borings and/or field observations warrant. Required edge drains shall meet the material and installation specifications of the MDOT.
- 10.02.10 Prior to acceptance by the Village, all catch basin sumps and other system components shall be inspected and cleaned out of collected materials.

10.03 STORM WATER / DRAINAGE REGULATIONS

10.03.01 Regulations

The Developer shall provide adequate storm water facilities system to manage storm water run-off from the lands developed, platted, condominiumized and outlets thereto. The storm water system shall have an outlet into a natural body of water, stream or previously established County drain, if available. Outlets to these waterbodies will require meeting Federal, State and local regulations, including the Village's Stormwater Management rules, regulations, and performance standards. If none of these outlets are available, the outlet shall be into an area provided and prepared by the Proprietor to serve as a storm water retention basin and be dedicated to the Kalamazoo County Drain Commission (KCDC).

10.03.02 Basin Area to Kalamazoo County Drain Commission (KCDC)

Size, design details and soil characteristics of the disposal basin must be approved by the Kalamazoo County Drain Commissioner and its Engineer if the area is to become the responsibility of the Kalamazoo County Drain Commission (KCDC).

The developer shall meet all the requirements as set forth by the Kalamazoo County Drain Commission (KCDC) rules, regulations, and/or policy.

- 10.03.03 Each Developer seeking to subdivide land, pursuant to the Land Division Act, PA 288 of 1967, as amended, shall comply with all provisions of the Land Division Act and in seeking approval of the preliminary and of final plats, shall furnish to the office of the Village of Vicksburg a written certificate of a surveyor detailing the compliance with said Act.

Each Developer seeking to develop land, pursuant to the Condominium Act, PA 59 of 1978, as amended, shall comply with all provisions of the Act and, in seeking approval from the Village of Vicksburg for a condominium project, shall furnish a written certificate of a surveyor detailing compliance with said Act.

- 10.03.04 The Developer shall pay all costs, charges and expenses incurred by the office of the Village of Vicksburg in connection with making determination as to whether the Village can approve the proposed development, including when applicable, transfer of the Drainage system to the jurisdiction of the Drain Commissioner. This shall include any monies expended for services of engineer or for legal fees or for supervision of operations relating to the proposed development or any other expense of any nature incurred by the Village of Vicksburg because of such application. The Developer, at time of request made for approval of a development, shall pay all applicable fees and also deposit with the Village of Vicksburg the sum of \$500 and, upon notice of need of further funds, shall supply same prior to obtaining project approval.

- 10.03.05 The Developer, in connection with each request for approval, shall furnish the Village of Vicksburg sufficient copies of all drawings and documents so that one copy of same may remain permanently in the office of the office of the Village of Vicksburg. Additionally, the Developer shall provide the Village of Vicksburg with one complete set of details, specifications and plans concerning all improvements needed in relation to drainage facilities in the proposed development.

- 10.03.06 In all instances, the Developer seeking approval shall provide the maps and engineering details concerning the drainage of the area which is to be developed, platted or condominiumized and adjacent thereto which will in any manner be affected by such development. Appropriate construction and facilities shall in all instances be constructed to adequately take care of all storm water drainage indicated to result from the area shown to contribute surface water run-off.

Where the Drain facilities will become a part of a drainage system under the jurisdiction of the Kalamazoo County Drain Commissioner, releases of rights-

of-way consistent with the normal releases obtained by the Drain Commissioner in similar cases shall be provided by Developer.

Where the Drain facilities will become a part of a drainage system under the jurisdiction of the Village of Vicksburg, releases of rights-of-way consistent with the normal releases obtained by the Village of Vicksburg in similar cases shall be provided by Developer.

- 10.03.07 In any instance where deemed necessary by the Village in order to assure construction in accordance with the plans and proposals, the Developer shall furnish bond as required by the Village to guarantee the construction as per plans, or as per approval granted.
- 10.03.08 The Developer on request of the Village shall furnish title opinion or other evidence showing ownership of the property within the limits of the proposed development.