

Storm Water Pollution Prevention Initiative

Michigan General Permit Number MIG610000

Certificate of Coverage Number MI0060174

Municipality/Agency: Village of Romeo

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Signature of Permittee Representative: _____



Acronyms

The following is a list of acronyms and definitions that are useful for understanding the contents of this document:

AC	Advisory Committee
BMP	Best Management Practice
CEA	County Enforcing Agency
CLMP	Cooperative Lakes Monitoring Program
COC	Certificate of Coverage
CRCP	Construction Runoff Control Plan
CREW	Clinton River East Subwatershed
EPA	United States Environmental Protection Agency
FCA	Fish Consumption Advisory
GLEAS	Great Lakes and Environmental Assessment Section
IDEP	Illicit Discharge Elimination Plan
LID	Low-Impact Development
MCPWO	Macomb County Public Works Office
MDNRE	Michigan Department of Natural Resources and Environment
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSP	Nonpoint Source Pollution
OSDS	Onsite Sewage Disposal System
P-CRCP	Post-Construction Runoff Control Plan
PEP	Public Education Plan
PPGH	Pollution Prevention/Good Housekeeping
PPP	Public Participation Plan
SEMCOG	Southeast Michigan Council of Governments
SESC	Soil Erosion and Sedimentation Control
WAG	Watershed Advisory Group

1. Purpose

The purpose of this Storm Water Pollution Prevention Initiative (SWPPI) is to combine several compliance documents into a single document which outlines the Village commitments necessary to reduce the discharge of pollutants associated with storm water runoff to the maximum extent practicable (MEP). This SWPPI complies with Part I.A.4.3) of the General Permit for Storm Water Discharges from Municipal Separate Storm Sewer Systems (MS4s) Subject to Watershed Plan Requirements, NPDES Permit Number MIG610000, and the Village of Romeo's Certificate of Coverage (COC) Number **MI0060174**, received in November **2021**. The following compliance documents were used to develop this SWPPI:

- The goals and actions from the Clinton River East Subwatershed (CREW) Management Plan,
- Revised SWPPI, submitted to MDNRE in 2007, which incorporated;
 - i. Village of Romeo Illicit Discharge Elimination Plan (IDEP), and
 - ii. Village of Romeo Public Education Plan (PEP)

The SWPPI includes those actions expected to be implemented over, and in some cases beyond, the 5-year term of the storm water permit.

This SWPPI contains four (4) summary tables that clearly outline:

- The Watershed Management Plan (WMP) goals associated with the Clinton River East Subwatershed (CREW) - found in Table 1
- The Best Management Practices (BMPs) agreed to by the Village that the Village will undertake to implement the WMP and address other requirements of the permit.
- The specific activities that the Village of Romeo has undertaken, or will undertake, with respect to the Village and IDEP.

2. Biennial Progress Report to Assess Progress

In order to assess our progress, the Village of Romeo will document the following on a biennial basis:

- Changes to the goals and/or actions in the WMP prior to the required permit date for review and revision;
- Progress with respect to specific goals and/or actions;
- Actions taken to eliminate illicit discharges;
- Schedule for elimination of illicit connections identified, but not eliminated;
- Documentation of the public education effort and an evaluation of its effectiveness;
- Any additional actions taken to reduce the discharge of pollutants in storm water;
- Progress on approved activities under the IDEP and PEP; and,
- Modifications to approved IDEP and PEP activities, if applicable.

3. Watershed Plan and SWPPI Revisions

The Village of Romeo's SWPPI will be reviewed and revised every two years, or as necessary. Revisions to date-specific commitments listed in Tables 2-4 will only be made with approval of the Michigan Department of Natural Resources and Environment (MDNRE). Each WMP will be updated every two years (unless a written determination is received by the MDNRE not to revise the WMP). If the WMP is revised, the SWPPI will be revised as appropriate and submitted to the MDNRE in a timely manner.

4. Retention of Records

The Village of Romeo will retain the approved SWPPI and its associated records in-house for a minimum of three years after the termination of the permit. The records will be available upon request by the MDNRE.

At this time, the Village of Romeo does not plan to conduct any of its own water quality monitoring. However, if in the future Village of Romeo conducts water quality monitoring, these records shall include, but not be limited to:

- Information regarding the effectiveness of these activities;
- Records of analyses performed;
- Calibration and maintenance of instrumentation, if used; and,
- Recordings from continuous monitoring instrumentation.

5. Village of Romeo SWPPI Goals and Priorities

The Village of Romeo supports the Clinton River East Subwatershed plan and will implement actions that address the goals of the plan, provided that those actions are applicable to the Village. For example, IDEP #2.1 covers the identification and reporting of any failed OSDS within the Village. The Village has no known OSDS, but will follow this activity should one be discovered.

6. SWPPI Development

This SWPPI has been designed and will be implemented in order to reduce the discharge of pollutants in storm water runoff to the maximum extent possible and is consistent with the Clinton River East WMP and the General Permit. This SWPPI includes the actions expected to be implemented over and beyond the term of this permit by the Village of Romeo and will be implemented upon approval of the District Supervisor of the MDNRE. The components of SWPPI implementation include:

- a. Actions agreed to by the Village of Romeo in the Clinton River East WMP as described in Table 3
- b. Other requirements of the General Permit (Tables 2-4)
 1. Evaluation and implementation of pollution prevention and good housekeeping activities, which also include a training and inspection program for staff and contractors employed by the Village of Romeo in activities that may affect storm water runoff. The following practices are considered:
 2. 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;
 3. Controls for reducing or eliminating the discharges of pollutants from streets, roads, highways, and parking lots controlled by the Village;
 4. 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);
 5. 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. The Village owns and maintains one (1) detention basin, located on the DPW facility, and

does not have any oil/water separators. The Village will consider installing a rain garden at their Village park;

6. Implementation of controls to reduce the discharge of pollutants related to application of pesticides, herbicides, and fertilizers applied within our permitted jurisdiction. Pesticides, herbicides, and fertilizers are not used on Village-owned property;
 7. Evaluation and implementation of a comprehensive post-construction storm water runoff control program that requires or encourages the use of site appropriate, cost-effective structural and non-structural Best Management Practices (BMPs) to minimize the water quality impacts from areas of new development and significant redevelopment, with the understanding that the goal is to protect the designated uses in the receiving waters from the effects commonly associated with urbanization of the watershed.
- c. The methods of assessing watershed progress in storm water pollution prevention, as summarized by the WMP goals (Table 1). A portion of the Village is located within the North Branch Subwatershed. However, the North Branch does not have an active Watershed Planning Group; thus no Watershed Management Plan has yet to be developed for this section. The Village posted the CRWC web link on their website, which accesses the North Branch Subwatershed web page.
 - d. Post-Construction and Good Housekeeping commitments of the Village (Table 2).
 - e. The Public Education revisions/commitments of the Village, submitted August 2010.
 - f. The Illicit Discharge Elimination Plan revisions/commitments of the Village, submitted August 2010.

7. Village-Owned Properties

Village-owned properties include: Village Hall/Administrative Offices, DPW facility, WWTP, one (1) public cemetery, one (1) Village park, police station, and fire station.

8. Water Quality Status

In the subwatershed, the likely predominant sources of sediment include stormwater runoff from urbanized areas and agricultural land. The unified stream assessment conducted at three locations in the subwatershed revealed bank failure, channel modification, and impacted buffers contributing to sediment loading. The assessed reach of the Gloede Drain contains one instance of steep-slope bank failure. These sources of impairment are the activities, facilities, or conditions that generate the pollutants that keep waters from meeting the criteria adopted by the states to protect designated uses, such as municipal sewage treatment plants, storm sewers, and modification of hydrology. The assessed reach of the Healy Brook Drain contains two instances of bank failure and channel modification due to fallen trees, bank armoring, and check dams. The assessed Harrington Drain reach contains an impacted buffer with bare ground; log jams; five instances of bank failure; and one instance of channel modification requiring structural repair.

A 2005 study prepared for the Macomb County Public Works Office and the MDNRE (ECT, 2006) documented high to very high streambank erosion potential on the Middle Branch of the Clinton River from its point of beginning to Romeo Plank Road. These potentials are functions of the shear stresses on the streambanks, the geometry of the cross-section, and the amount and type of material that is available to be eroded. In 2005, the MCPWO and volunteers collected field data on streambank conditions in the subwatershed. MCPWO and volunteers documented good conditions at all locations on the Clinton River, the spillway,

Wilcox Drain, Kingsbury Drain, Harris Drain, and most locations on the Middle Branch and Harrington Drain. The Price Brook had three good and three fair locations. The Gloede Drain had two poor locations, the Longstaff Drain had a fair and poor location, the Harrington Drain had a poor location, the Healy Brook had a poor location, and the Middle Branch had two fair locations.

In the subwatershed, the likely predominant sources of phosphorus include stormwater runoff from urban areas, failing septic systems and runoff from agricultural areas. The results from a Road-Stream Crossing Survey found that proximity of the waterbodies to managed lawns or other urban residential neighborhoods is a common problem in the subwatershed. Managed lawns are potential sources of phosphorus in the subwatershed. In addition, results showed that almost all sites lacked a 100-foot riparian buffer. The neighborhood site assessments revealed that in three-fourths of assessed neighborhoods, at least 80% of lots had moderately to highly maintained turf grass. Highly managed turf grass is often the source of nutrients from fertilizer, grass clippings, and other yard waste. Based on field observations, 90% of neighborhoods showed indicators for excessive nutrients.

The likely sources of pathogens in the subwatershed include stormwater runoff from urban areas, failing septic systems, sediment resuspension related to altered hydrology, sanitary sewer overflows, wildlife, pet waste, and illegal dumping and illicit connections into the storm sewer system.

Middle Branch

Monitoring data from two water quality monitoring stations show *E. coli* concentrations exceeded water quality standards at the time of sampling. Without estimated load contributions by source category, information about land uses in these catchments can help determine the potential sources of *E. coli*. Predominant land uses in the Middle Branch catchments include residential (38 percent) and agriculture (25 percent). Of the three catchments, the North Middle Branch contains the highest percentage of agricultural lands. In addition, 93 percent of the land area in the North Middle Branch relies on septic systems – estimated to have a potential 30% to 50% failure rate. Within this critical area comprised of the three Middle Branch catchments, it is recommended that potential agricultural sources (e.g., uncontrolled manure storage areas, land application of manure and sewage sludge) and failing septic systems take first priority. Runoff from urbanized areas in all three catchments should also receive attention in an effort to reduce *E. coli* loads.

Central Middle Branch Catchment

Three of the highlighted water quality monitoring stations are located in the Central Main Branch catchment. This catchment is adjacent to the Red Run subwatershed; therefore, the *E. coli* concentrations in this catchment likely reflect upstream contributions and illustrates the need to work with the Red Run subwatershed to address *E. coli* loads.

West Main Branch Catchment

E. coli monitoring data from the water quality monitoring station represents conditions from the mid-portion of the West Main Branch catchment. Potential sources from this catchment

might include septic systems, runoff from agricultural sources, as well as runoff from urban sources.

9. Water Quality Stressors

Stressors identified within the CREW include:

- Sediment;
- Phosphorus;
- Pathogens;
- Flow alterations;
- Contaminated sediments; and
- Habitat alterations.

Table 1. Goals and Objectives of the Clinton River East Subwatershed Management Plan

Clinton River East Subwatershed Management Plan	
Goal I Protect water quality and reduce pollution	
Objective A: Address existing and future contaminated sediments	i. Identify feasible actions to remediate existing contaminated sediments.
	ii. Identify/implement pollution prevention activities for current and future sources.
Objective B: Reduce the amount of nutrients and excessive algae to improve dissolved oxygen levels.	i. Identify sources of nutrients and BOD.
	ii. Identify/implement management practices to limit nutrient and BOD loadings.
Objective C: Reduce amount of sediment	i. Identify sources of sediment.
	ii. Identify/implement management practices to limit sediment loadings.
Objective D: Reduce amount of pathogens	i. Identify/address failing septic systems.
	ii. Identify/address illicit connections.
	iii. Identify stormwater management techniques to reduce nonpoint source pathogen loadings and implement techniques where practical.
Goal II Provide and promote public education to raise awareness and change behavior.	
Objective A: Increase public awareness of watershed problems and management activities	i. Develop/utilize existing outreach materials using messages and formats tailored to specific target audiences
	ii. Provide hands-on, interactive learning opportunities focused on watershed concepts tailored to specific target audiences
Objective B: Increase public understanding of steps to take to improve water quality	i. Ensure existing outreach materials focused on positive actions to improve water quality reach key target audiences
	ii. Provide hands-on learning opportunities for key target audiences that address specific behaviors and pollutants of concern

Objective C: Produce measurable changes in the public's behaviors that negatively impact water quality	i. Develop and utilize existing social marketing programs that target specific pollution behaviors in specific target audiences
	ii. Conducting evaluations of outreach and social marketing activities to assess effectiveness over time
Goal III Protect and enhance sustainable recreational opportunities	
Objective A: Increase opportunities for water-based recreation	i. Educate the public about potential dangers and health risks associated with water-based recreational activities
	ii. Educate the public about inland parks and recreational lands near open drains to help make residents more aware of the potential effect they have on the lake
	iii. Increase recreational opportunities through additional programs/facilities and enhance public access to existing facilities
	iv. Ensure water is safe for partial and total body contact recreational activities
Goal IV Minimize local stakeholder impacts and restore and enhance fisheries, aquatic life, wildlife and associated habitat	
Objective A: Increase the amount of desired habitat to support aquatic life, wildlife and fisheries	i. Identify high-quality habitat in need of protection
	ii. Identify areas with habitat in need of restoration
Goal V Reduce impact of runoff through effective stormwater management	
Objective A: Reduce impacts from urban stormwater runoff	i. Identify and implement best management practices to effectively manage quantity and quality of urban stormwater
Objective B: Reduce urban stormwater contributions leading to CSOs and SSOs	i. Identify and implement best management practices to effectively manage quantity and quality of urban stormwater that will promote reduction of CSO and SSO frequency

Goal VI Seek out opportunities to sustain implementation of the plan	
Objective A: Increase funding available for implementation	i. Identify existing federal, state and local funding opportunities
	ii. Coordinate the development of grant proposals
	iii. Identify private sector funding opportunities
Objective B: Institutionalize the plan and the advisory group	i. Identify and adopt a mechanism for ensuring the advisory group continues its activities in the future
	ii. Identify and adopt a mechanism for ensuring the plan is implemented, updated and revised in the future