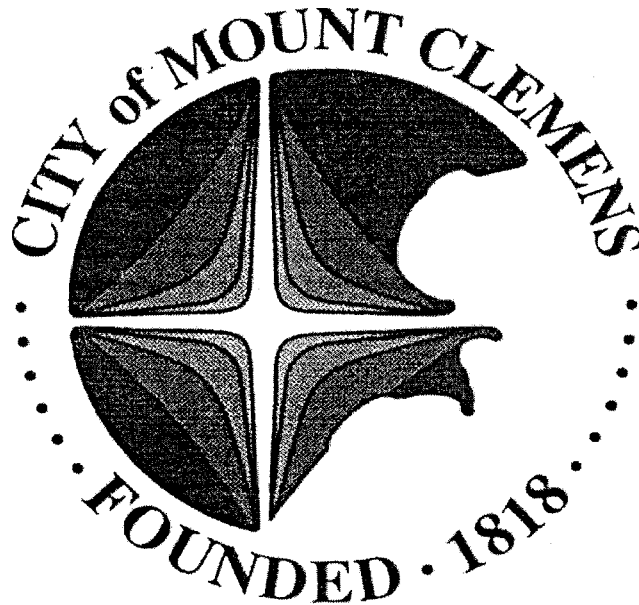


**City of Mount Clemens**



**ILLICIT DISCHARGE ELIMINATION PLAN**

**&**

**TOTAL MAXIMUM DAILY LOAD**

**CERTIFICATE OF COVERAGE NO. MIG610311**

**WATERSHED PERMIT  
GENERAL PERMIT NO.: MIG619000**

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# 1.0 ILLICIT DISCHARGE ELIMINATION PLAN

## 1.1 INTRODUCTION

As part of the NPDES Phase 2 Watershed Permit, an Illicit Discharge Elimination Program (IDEP) must be developed and submitted to the Michigan Department of Environmental Quality (MDEQ). The Purpose of the IDEP is to develop a program to prohibit and effectively eliminate illicit discharges and connections, including discharges of sanitary wastewater to the City of Mount Clemens' (the City's) separate storm water drainage system. The IDEP also identifies the interaction and responsibilities of the City with Macomb County and other watershed partner communities located within the Clinton River Watershed.

An effective IDEP requires a variety of government entities working cooperatively. By working on a watershed approach, duplication of effort is avoided when locating and eliminating illicit discharges/connections and training and education activities can be conducted in a more effective and cost efficient manner. This IDEP coordinates activities with Macomb County, watershed partner communities, and the MDEQ to protect and restore the surface waters of the state within the Clinton River Watershed.

## 1.2 DEFINITIONS

To ensure the IDEP is developed and implemented with clear understanding of the type of sources to be eliminated, following are key terms to be understood:

- Separate Storm Water System: Includes open and enclosed drainage systems owned or operated by the permittee and discharge either to a surface water of the State or to a separate water drainage system operated by another public body.
- Illicit Discharge: Any discharge (or seepage) to the separate storm water drainage system that is not composed 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 the waters of the State, or a point where a storm water drainage system discharges into a system operated by another public body.
- Significant Illicit Discharge: A discharge that shows evidence of impairing water quality in the receiving water.

### **1.3 EXISTING IDEP EFFORTS**

The City will use compiled data to prioritize all IDEP activities. Data will include information already compiled during the 2018 SAW Grant Investigation, any in stream monitoring data available through various agencies involved in the Clinton River East Watershed, and any other information that may be useful.

The City will work with the Macomb County Public Works Office (MCPWO) which has established a toll-free 24-hour hotline that accepts water pollution complaints. If the MCPWO receives a call of an urgent nature, on-call staff will respond to the complaint and notify the MDEQ, MCHD and other appropriate agencies immediately. All other calls are responded to the following business day by the MCPWO. If the MCPWO believes the call requires City follow up, the City is contacted by the MCPWO to address the pollution complaint.

MCPWO advertises the hotline number with signage and printed materials. The Report-A-Polluter sign is 24 by 30 inches and is placed throughout the Clinton River Watershed in Macomb County. Most signs are hung with the 'Ours to Protect' watershed signs. The City will work with MCPWO to determine appropriate locations to post the Report-A-Polluter signs.

Printed materials include a calendar that includes the hotline number printed on each month and an IDEP brochure. The City is provided calendars and brochures from the county and makes them available to both staff and citizens.

### **1.4 OUTFALL SURVEY**

The City of Mount Clemens will ensure that City-owned and operated facilities are not illicitly discharging into the storm drain system. A complete outfall survey of all known point sources under the City's jurisdiction has been completed through the 2018 SAW Grant Investigation. The City performs sampling on the storm drain system immediately downstream of their facilities to verify proper connections. If illicit connections are found, the City is committed to correcting them as soon as practically possible. Progress of this task is tracked and reported in the biennial report.

Prior to initiating an outfall survey, staff participating in IDEP activities are trained, at a minimum, on the following topics:

- Definition of illicit discharges and illicit connections
- Techniques for finding and identifying illicit discharges and illicit connections
- Recognizing naturally occurring phenomena and their sources (i.e. bacterial sheens, slimes, films, etc.)
- Techniques for sampling, analyzing and recording results
- Proper methods and procedures for reporting, eliminating the illicit discharges and illicit connections
- Safety issues associated with IDEP activities

Following links provide Stormwater Training,

[https://www.michigan.gov/deq/0,4561,7-135-3308\\_3333-14035--,00.html#Storm\\_Water](https://www.michigan.gov/deq/0,4561,7-135-3308_3333-14035--,00.html#Storm_Water)

<https://www.waynecounty.com/departments/environmental/waterquality/training.aspx>

Existing staff are trained once during the permit cycle and new hires within the first year of their hire date.

Once IDEP staff are trained, the City will conduct dry weather screening on its outfalls. Screening will include noting observations of the following physical characteristics:

- Flow during dry weather conditions.
- Water clarity and color.
- Presence of foam, oil sheen, trash, and/or floatable materials.
- Presence of bacterial sheens or slimes.
- Staining of the banks, outfall structure, and/or vegetation.
- Excessive vegetative growth or algae.
- Odor.
- Outfall Damage (Spalling / Cracking / Chipping/ Peeling Paint / Corrosion).

If field-screening investigations indicate the presence of an illicit discharge, a follow up source investigation is conducted within 1-2 business days of discovery. The follow up source investigation will include at a minimum the suspect discharge is sampled for E. coli bacteria and/or any other appropriate parameter(s) based on the screening results and on any data previously attained. Once a potential illicit discharge is identified, the outfall is placed on the priority list for follow-up. Follow-up will include any or all of the following:

- Systematic upstream sampling and testing.
- Further investigation of sewer maps.
- Storm sewer cleaning and televising.
- Dye testing of suspected homes or businesses that could be the source of the illicit discharge.
- Smoke testing of the storm sewer sections known to contain contamination.

All dye testing and smoke testing will comply with MDEQ requirements. Discharges having the greatest impact on the Clinton River East Watershed will receive top prioritization for follow up and corrective action. All data collected during IDEP activities is kept in the GIS database so that progress in eliminating illicit discharges may be efficiently tracked. The City will verify illicit discharge corrections are done properly by inspecting the work done. The City will also do follow up sampling and testing to make sure no leaks, seepage, or additional illicit discharges are near a corrected illicit discharge.

If untreated or partially treated sewage of human origin is discharged from the drainage system, the City will comply with Section 324.112a of Part 31 of Public Act 451 of 1994, including notification of the MDEQ, the local health department and one or more daily newspapers of general circulation.

If illicit sanitary connections are found during IDEP investigations, the City will do, at a minimum, the following to comply with the permit and the law:

- Report discharges of untreated or partially treated sewage from illicit sanitary connections to the land or into waters of the state annually as Sanitary Sewer Overflows (SSOs) related to either dry or wet weather events.
- The reports indicate whether the frequency of discharge is periodic or continuous and provide an estimate of the annual volume of the discharge.
- The discharge is reported annually until the illicit connection is eliminated.
- In addition to being reported annually, significant illicit discharges of untreated or partially treated sewage are reported within 24 hours after discharge begins or is discovered.
- The reporting form found on MiWaters is used for illicit discharge reporting.

## **1.5 FINDING AND ELIMINATING THE SOURCE**

*Description:* In order to perform outfall surveys City staff will attend IDEP training when offered in the watershed. The City will follow-up on drains placed on the priority list. First, the City will try to identify the ownership of the drain. Drains may be under the jurisdiction of the Macomb County Public Works Office (MCPWO), the Macomb County Department of Roads (MCDR), Michigan Department of Transportation (MDOT), neighboring communities, or the City of Mount Clemens. If a drain outside the jurisdiction of the City is suspected to be improperly discharging into a storm drain, the City will notify the appropriate jurisdiction in writing within 30 days of the discovery of the suspected discharge including any pertinent information pertaining to the suspected discharge.

The City of Mount Clemens will follow-up on suspicious discharges that are found to be discharging from their drainage system. The follow up investigations will consist of first narrowing down the location of the source of the illicit discharge by sampling various manholes along the drain. Once a section of the drain has been targeted, advanced investigation techniques will then be employed. Advanced investigation techniques may include televising the target section of the sewer, using automatic samplers for discharges that are intermittent or flow dependent, smoke testing storm sewers, and dye testing homes or facilities to verify a suspected illicit connection or discharge. **Notice of Intent to treat under General Rule 97 Certification** of approval will be obtained from the MDEQ in the event tracer dyes are used for sewer investigations.

If a spill (or illegal dumping) is large or hazardous or cannot be contained on site, so that it might be released to the surface water or groundwater of the state, **it should be reported immediately by calling 911 to dispatch the Fire Department** and by calling the MDEQ at the phone numbers listed below. The Fire Department will mobilize the Macomb County Hazardous Materials

Response Team personnel (Clinton Township, Eastpointe, Lenox Township, Mount Clemens, Shelby Township, Sterling Heights, Warren, Roseville and Center Line participate) if deemed necessary. Spills that are below the threshold reporting quantities in the state's Part 5 Rules do not need to be reported to the MDEQ. During regular business hours, the MDEQ district office in Warren should be called at: (586) 753-3700. During non-business hours call the Pollution Emergency Alert System (PEAS) at 1-800-292-4706. If the spill might reach navigable waters, the Coast Guard will also be called at: (313) 568-9524.

The City of Mount Clemens will track the status of each suspicious discharge that has been identified. Tracking will consist of a dated log of activities that have been performed to locate the source(s) of the problem. Once a source has been identified, the property owner is notified within (48) Hours of discovery.

The City's goal is to have each illicit connection or illegal spill/dumping corrected within ninety (90) days of notification to the property owner, if a sanitary sewer is readily available and the cost for correction is not prohibitive for the property owner. However, if more complicated solutions are required, the City will set up a schedule for correction with each individual property owner. After the ninety (90) days of notification, or approved target date, the City will recheck and possibly dye test the outfall to ensure that the corrections have been made.

## **1.6 LEGAL AUTHORITY**

From the City's experience, those individual property owners found discharging illegally into the storm water sewer system have voluntarily corrected the problem. If enforcement becomes necessary, the City has the authority to enforce correction of illicit connections under its Sewer Use Ordinance. An Enforcement Response Plan (ERP) was developed by the City.

### **Illicit Discharge Elimination in the City of Mount Clemens Enforcement Response Plan:**

#### **TYPES OF VIOLATIONS**

Noncompliance includes any violations of 25.000 "Wastewater and Drainage Water Disposal Ordinance" and the International Plumbing Code. Typical violations which will require action can include buildings that have the building service sewer directly hooked to the City Storm Sewer or directly discharging to surface waters of the State of Michigan.

#### **ENFORCEMENT RESPONSIBILITY**

Notification of a possible violation can come from the building inspection department or thru a formal inspection program. The first levels of enforcement can come from the Utilities Director or the Building Inspector. The highest level of enforcement, a court summons, will come from the Utilities Director.

#### **ENFORCEMENT RESPONSE LEVELS**

##### **1. *Informal Communications:***

Initially, a violation can be addressed by a telephone call or direct communication with the building owner. A two-week period is given to the building owner to schedule a qualified excavation contractor to re-plumb the illicit connection.

2. Warning Letter:

A warning letter will represent the next level of communication for enforcement. The warning letter gives the building owner an opportunity to correct the problem on his/her own initiative, rather through City Enforcement, thereby helping to foster a cooperative spirit. The warning letter can be issued in person or mailed. Additionally, the warning letter will include a 30-day time deadline to remove the illicit connection and outline the consequences for failing to correct the violation.

3. Code Enforcement Action:

If the warning letter fails to bring a building owner into compliance, an ORDINANCE VIOLATION NOTICE is issued. The OVN is a standard code enforcement form used in the City of Mount Clemens for all types of Ordinance Code Enforcement. Failure to comply with a violation notice will result in a COURT SUMMONS and possible impositions of fines, court costs, and misdemeanor charges.

## 1.7 IDEP EVALUATION

The City will track the number of City employees trained, the number of illicit discharges/connections found by staff, along with the number of discharges/connections eliminated. This information is submitted with the City's biennial report. If possible, the estimated pollutant reduction is determined and reported biennially.

## 1.8 SCHEDULE

IDEP activities will commence as shown in Table 1 once the MDEQ approves the Plan. If the MDEQ does not approve or comment on the Plan within 90 days of submittal, The City of Mount Clemens will begin implementation of the Plan as submitted. At minimum, outfalls are screened at least once every five years or per an alternate schedule approved by MDEQ if the outfall shows no presence of an illicit discharge/connection.

## 1.9 MAPPING

The City continually updates outfall maps with newly constructed or newly identified point sources within thirty (30) days of construction or identification. Updated maps are submitted with the City's biennial reports.

## 1.10 EMPLOYEE TRAINING PROGRAM

New employees / Contractors will view the MDEQ online employee training video "Storm water Employee Training" upon Hire.

All Mount Clemens Utility Staff will watch a storm water training video "Working for Clean Water" developed by Wayne County Department of Environmental Services during the Phase 2 permit cycle. Utility Staff actively working on IDEP will attend regional training seminars when available during the Phase 2 permit cycle.



## 2.0 TOTAL MAXIMUM DAILY LOAD (TMDL)

### 2.1 INTRODUCTION

Total Maximum Daily Loads (TMDLs) are developed by the states for water bodies that are not meeting water quality standards. TMDL development is required by “Section 303(d) of the federal Clean Water Act and the United States Environmental Protection Agency’s (USEPA’s) Water Quality Planning and Management Regulations (Title 40 of the Code of Federal Regulations [CFR], Part 130)”. The TMDL process sets the allowable levels of pollutants for a body of water, and provides the states with a basis for determining the pollution reductions necessary to restore and maintain the quality of their water resources.

Escherichia coli (E. coli) is a type of bacteria (single cell organism) that is used by the State of Michigan as a water quality indicator. When E. coli is found in surface waters, it means that there has been fecal contamination. While E. coli itself may be harmful to human health, other disease causing organisms might also be present. Once these pathogens are in a stream or lake, they can infect humans through ingestion or skin contact, resulting in diseases such as gastroenteritis (diarrhea), giardia, hepatitis, or cholera.

### 2.2 WATER QUALITY STANDARD FOR E. COLI

The Water Quality Standard for E. coli is shown below:

Total Body Contact (May1 - October 31):

Daily Maximum Geometric Mean: 300 E. coli per 100 milliliters (ml)

30-Day Geometric Mean: 130 E. coli per 100 ml

Partial Body Contact (all year):

Daily Maximum Geometric Mean: 1,000 E. coli per 100 ml

### 2.3 SAMPLING AND MONITORING PROCEDURE

For the water bodies impacted or potentially impacted by the City of Mount Clemens MS4, the following TMDL’s have been established:

E. coli Clinton River	-	TMDL	ID-91
E. coli Lake St. Clair, Memorial Beach and Metro Beach		TMDL	ID-72

The City of Mount Clemens conducts wet weather sampling of outfalls or discharge points from the City owned facilities and other locations within the City boundaries to cover proper TMDL monitoring program. TMDL monitoring plans with BMPs are included in appendix A, Table 1 and Table 1A.

Wet weather sampling program is conducted after at least 0.25 inch of rain has fallen in the last 24 hours. At least two wet weather screening of outfalls or discharge points are performed during the permit cycle for monitoring purpose. The amount of rainfall should also be included when investigating a spill/suspicious flow reporting.

If any sampling indicates samples in excess of the standard limit of E-coli amount, the City of

Mount Clemens will inform MCHD and conduct further investigation to identify illicit connection upstream of the outfall or discharge points and implement BMPs for pollution prevention and good housekeeping throughout the City. The results of any compliance related sampling are assessed and summarized in the required biennial progress reports or at least twice during the permit cycle. Based on a review of the sampling results, Implementation of new BMP's is reviewed and/or existing BMPs are updated or revised to ensure progress toward achieving TMDL pollutant load reductions. The actions and records of each activity are kept and submitted in the biennial report.

**Table 1. IDEP Implementation Schedule - Annual Basis**

Activity	January	February	March	April	May	June	July	August	September	October	November	December
Review Water Quality Data from												
Initial Investigations on known												
Follow-up Investigations on												
Outfall Database Update												
Annual Report												