

EASTERN MICHIGAN UNIVERSITY

**ILLICIT DISCHARGE ELIMINATION PROGRAM
(IDEP)**

A Member Of
Middle Huron Stormwater Advisory Group Members
Participating in the Watershed Municipal Stormwater Permit

PREPARED IN COMPLIANCE WITH
MICHIGAN DEPARTMENT OF NATRUAL RESOURCES AND
ENVIRONMENT
PHASE II STORM WATER REGULATIONS
GENERAL STORM WATER PERMIT
MIG610000
and
CERTIFICATE OF COVERAGE MIG610381

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 2 of 12

Table of Contents

Page

Section I - PURPOSE _____	3
Section II - SCOPE AND APPLICATION _____	3
Section III – POLICY _____	4
Section IV – DEFINITIONS _____	4
Section V – INTRODUCTION _____	4
A. General Information	4
B. Nested Jurisdictions	5
C. Storm Water Drainage and Sanitary Waste Disposal	5
Section VI – RESPONSIBILITIES _____	5
Section VII – PROCEDURE _____	6
Section VIII – PROGRAM APPROVALS _____	12

Appendix

Exhibit A - Urbanized Area for Stormwater Entities showing jurisdictional limits of Eastern Michigan University

Exhibit B - Stormwater Outfall maps for Eastern Michigan University

Contact: Kevin Abbasse, Manager,
Structural Life / Safety Systems
Eastern Michigan University
Physical Plant,
875 Ann Street,
Ypsilanti Michigan 48197

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011 Page 3 of 12

I. PURPOSE – Illicit Discharge Elimination Program (IDEP) Objectives

The purpose of this document is to describe the Eastern Michigan University (EMU) Policy and procedures for identifying and eliminating illicit connections and discharges to the Waters of the State. As such it serves as the plan, policy, and procedures requirements of the permit.

The City of Ypsilanti has agreed to cover EMU under its Certificate of Coverage (COC) for the Watershed General Permit, and a nested agreement between EMU and the City has been adopted. However, this program applies to EMU's facilities only.

This document fulfills the requirements for Part I. Section A.3 of the State of Michigan's National Pollutant Discharge Elimination System (NPDES) Watershed Permit (MIG610000) for Storm Water Discharges from Municipal Separate Storm Water Drainage Systems (MS4s); and the EMU component of the COC, MI G610381 issued to the City of Ypsilanti February 26, 2010.

The purpose of the IDEP is to prohibit and effectively identify/eliminate illicit discharges and connections to storm water conveyance systems on campus.

II. SCOPE AND APPLICATION

This program applies to all properties for which Eastern Michigan University is responsible for operations and maintenance including:

- A. Main campus
- B. West campus
- C. Eagle Crest Golf and conference facilities

IDEP training applies to Physical Plant personnel with duties pertaining to plumbing, grounds maintenance, and custodial responsibilities. EMU owns and/or operates an MS4s under its jurisdiction and as such this IDEP shall:

- A. Train appropriate EMU staff on the investigation of illicit connections and discharges, with emphasis on outfall observations/screenings, safety issues and natural occurring phenomenon.
- B. Implement a system for identifying and eliminating illicit discharges and connections to the MS4s including outfall observations and follow-up sampling.
- C. Document the proper legal authority to eliminate illicit discharges and connections to MS4s and provide for inspections of any MS4s that may be constructed on campus at EMU in the future.
- D. Locate and accurately map the storm water conveyances and outfalls owned and operated by EMU.

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 4 of 12

- E. Determine the ownership of other significant storm water conveyances on EMU campus, and initiate a process to bring any “orphan” drains under proper jurisdiction
- F. Establish a campus-wide complaint response and referral system for storm water and water quality related complaints that complements/supports the Washtenaw County Water Resources Commissioner and other agencies such as a County-wide reporting system.
- G. Coordinate EMU IDEP efforts with other local communities and impacted County agencies.

III. POLICY

By the Board of Regents authority vested in the director of Physical Plant operations, this document constitutes the ILLICIT DISCHARGE ELIMINATION POLICY at Eastern Michigan University:

- A. Illicit connections and discharges, as defined below, are strictly prohibited;
- B. All suspected illicit connections/discharges will be investigated by the Physical Plant staff to determine the source of pollutant(s).
- C. All illicit connections/discharges will be eliminated by the Physical Plant staff.
- D. This policy shall be enforced to the fullest extent by the Physical Plant, Public Safety Department, and Environmental Health and Safety.

IV. DEFINITIONS

- A. **Dry Weather Inspections** – Outfall inspections conducted when no rain/precipitation event has occurred for a minimum of 48 hours.
- B. **Illicit Discharge** - Any discharge (or seepage) to the separate storm water drainage system that is not composed entirely of storm water or uncontaminated groundwater.
- C. **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.)
- D. **Outfall/point source** – A location where storm water from an EMU separate storm water conveyance passes into a water body, wetland, upland or into a conveyance or property under the ownership or jurisdiction of an entity other than the University.
- E. **Significant Illicit Discharge** is a discharge that shows evidence of impairing water quality in the receiving water.

V. INTRODUCTION

A. General Information

The City of Ypsilanti covers approximately 4.2 square miles in Washtenaw County. Originally established as an Indian trail that crossed a railroad, the City was incorporated as a Village in 1832 and as a City in 1858. Exhibit A is the urbanized area for storm water

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 5 of 12

entities as defined by the 2000 census and shows the jurisdictional limits of the City of Ypsilanti. Eastern Michigan University owns or operates approximately 573 acres. Established in 1849 the university manages a main campus as well as its west campus all wholly within the Ypsilanti City limits. The college of business, located on Michigan Ave in the City, and the Eagle Crest Golf and Conference facility in Ypsilanti Township are managed by the university.

B. Nested Jurisdiction

Eastern Michigan University (EMU) owns and operates a regulated separate storm sewer within the City of Ypsilanti limits. The City and EMU have agreed to work cooperatively to carry out stormwater responsibilities. A formal agreement has been written and signed between the City and EMU. Mr Kevin Abbasse is responsible for implementation of this program on behalf of EMU. Mr. Abbasse can be reached at (734) 487-3426.

A. Storm Water Drainage and Sanitary Waste Disposal

The University's storm sewer system is under its sole jurisdiction. However, the separate sanitary sewer system is under the jurisdiction of Ypsilanti Community Utilities Authority (YCUA). Exhibit B, located in the appendix, lists known storm sewer outfalls under EMU's jurisdiction. The information presented in Exhibit B is based on the EMU records of as-built storm sewer plans. This information continues to be verified as the IDEP is implemented. To date, the University has identified 38 outfalls under its jurisdiction. These ultimately discharge to the Huron River. The drains/receiving waters are shown in Exhibit B.

VI. RESPONSIBILITIES

A. Physical Plant

1. The Physical Plant management is responsible for all aspects of the permit compliance.
2. The Plumbing Department staff is responsible for IDEP implementation including: dry weather screening, identification of illicit connections or discharge, taking corrective action, and reporting to Physical Plant management.
3. Management is responsible for policy and procedures; and for reporting
4. Management and staff are responsible for taking illicit discharge complaints and responding in collaboration with City and County authorities.

B. Environmental Health and Safety

1. Environmental Health and Safety (EHS) collaborates with the Physical Plant regarding the Public Education and Outreach component of the permit.

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 6 of 12

2. EHS assists the Physical Plant with interdepartmental in communications, pollution prevention, spill response, file/documentation management and other supportive duties.
3. Management and staff are responsible for taking illicit discharge complaints and responding in collaboration with City and County authorities.

C. Public Safety

1. The Department of Public Safety collaborates with EHS and the Physical Plant spill response and identification of potential illicit discharges.
2. DPS will attend IDEP training in order to identify Illicit discharges and to collaborate in the IDEP complaint report element.
3. Management and staff are responsible for taking illicit discharge complaints and responding in collaboration with City and County authorities.

VII. PROCEDURE

The following procedures summarize the four required elements of an IDEP as specified in Part I, Section A.3 of the MDNRE Watershed Storm Water General Permit (MIG610000) and the University's program for addressing each element. The University is committed to ongoing IDEP activities to meet each of the required elements within one-year and five-year cycles as specified in the permit. The program actions are summarized and tabulated in Table 3 of Stormwater Pollution Prevention Initiatives (SWPPI). The University's IDEP will be reviewed during preparation of annual reports to the MDNRE to determine if modifications are needed. The MDNRE will be advised of any changes in the program.

The University acknowledges that public education and public involvement is essential for protection and enhancement of our natural resources. For an IDEP to be effective there must be an ongoing Public Education Plan that meets the objectives for the community. The University is coordinating the IDEP with the Public Education Plan to develop target audiences and messages.

PROCEDURE 1 – Investigate and eliminate all suspected illicit discharges and illicit connections found during dry weather screening.

Procedure 1.1: Develop a priority schedule for the inspection of all EMU drains and outfalls.

Description: EMU will use existing water quality data, knowledge of problem areas, existing work/inspection schedule, location and other criteria to prioritize the inspection of EMU drains and outfalls. The schedule will allow the inspection of all of the outfalls every 2 years.

Responsibility: EMU Physical Plant Plumbing Department

Measure: A written inspection schedule

Schedule: Complete prioritization by **December 2011.**

Procedure 1.2: Perform visual inspections and dry weather screenings of EMU owned and/or operated storm water conveyance outfalls.

Description: Based on the schedule developed in Procedure 1.1, dry weather visual inspections will be conducted at each of the EMU's known outfalls shown in Exhibit B. In instances where the outfall is submerged, directed to another enclosed sewer, or is otherwise inaccessible, will visually inspect the nearest upstream accessible location. Dry weather inspections are defined as those conducted when no

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 7 of 12

rain/precipitation event has occurred for a minimum of 48 hours. If flow is observed in the sewer at that time, it will be determined if the flow is natural base flow or a possible illicit discharge.

Responsibility: EMU Physical Plant Plumbing Department or its contractor.

Measure: Documentation of findings and observations. Number of possible illicit connections discovered.

Schedule: Inspect 100% by **December 2011**, complete all evaluations by December 2012, and repeat visual inspection every 2.5 years or by some alternative schedule approved by the MDNRE.

Procedure 1.3: Trace Illicit Connections and Owner Notification

Description: Trace suspected illicit connections found in Procedure 1.2 to their source using the techniques described below, and notify the owner or responsible jurisdiction of the problem in writing. If the illicit connection or discharge is a direct discharge to the University conveyance system, then the EMU Physical Plant will immediately eliminate the illicit connection/discharge and document the corrective actions.

Tracing techniques - All stormwater outfalls that are discharging during dry weather will be investigated further. The University may be able to locate the source of an illicit connection/discharge solely through visual observation. Odor, color, turbidity, bacteria growth, quantity of flow, etc., may lead to the source of a problem without additional sampling. As needed, sampling, dye and/or smoke testing, as-built plan review, or other investigative techniques will be used to determine the nature and source of the flow.

1. Sampling - Investigation of dry weather discharges will be prioritized based on the number of discharges identified, as well as other factors including location, volume of flow, and suspected contaminants based on color, turbidity, or odor. If flow is observed during the dry weather outfall inspections but visual observations do not lead to a source, EMU may decide to sample the flow for pollutant parameters typically found in illicit connections. Sampling can rule out some dry weather discharges such as groundwater. The sampling will typically begin at the outfall and continue upstream from access site to access site until a source is found. The choice of sampling parameters will depend on several factors including:
 - Location of the storm outfall (i.e., in residential or commercial area);
 - Turbidity and color of discharge which could distinguish between an illicit discharge from a campus facility versus a residence;
 - Odor associated with discharge such as petroleum, or raw sewage.

EMU may choose to analyze the samples for some or all of the following parameters:

Parameters	Found In	Potential Source(s)
Escherichia coli	Sewage	Human or Animal Waste
Surfactants	Soap, Emulsifiers	Industrial/Commercial/Residential
Ammonia	Sewage, Fertilizers, Industrial Chemicals	Industrial/Residential/ Agricultural
Nitrates	Sewage, Fertilizers Industrial Chemicals	Fertilizers/ Industrial/ Residential/Agricultural
Conductivity	Industrial Waste, Sewage, Salt	Industrial/Residential/Agricultural
Total Dissolved Solids	Industrial Waste, Sewage,	Industrial/Residential/Agricultural

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 8 of 12

	Salt	
Temperature	Cooling Water, Sewage	Industrial/ Residential
pH	Acids and Bases	Industrial/ Residential

2. As-built plan review - Where available, EMU will utilize as-built pipe schematic drawings as a tool to determine the source of an illicit connection/discharge.
3. Dye or smoke testing –EMU will conduct physical inspection of campus facilities as needed to verify suspected illicit connections detected through visual observations/sampling of outfalls and manholes. As necessary, facility inspections will include dye or smoke testing of suspect facility plumbing fixtures to determine if the fixture discharges to the sanitary system or to the storm sewer. All facility inspections will be documented.
4. Televising – EMU may elect to televise those enclosed storm sewers that have suspicious flows to identify pollutant sources that cannot be located through simple visual observation and/or sampling. For example, EMU may determine through visual observation and/or sampling that an illicit connection exists between two specific manholes. Video inspection of the stretch of storm sewer between these two manholes could be used to isolate the exact source of the connection/discharge.
5. EMU may elect to conduct wet weather observations of some outfalls to determine if runoff from certain areas is contaminated. For instance, oil sheen at the outfall may indicate illicit disposal of oils or grease upstream in the service area. All outfall inspections will be documented.

Responsibility: EMU Physical Plant Plumbing Department or contractor

Measure: Number of illicit connections/discharges traced and documentation of notification and elimination.

Schedule: Ongoing as needed to assure all illicit connections are traced.

Procedure 1.4: Follow-up Enforcement for Non-correction

Description: EMU will follow up on any source of illicit discharge to ensure that the connection / discharge has been eliminated. If the illicit discharge is an indirect source, EMU will coordinate follow-up and enforcement with the jurisdiction in which the discharge originates.

Responsibility: EMU Physical Plant Plumbing Department

Measure: Documentation of enforcement actions. Number of illicit connections/discharges found vs. number eliminated.

Schedule: Ongoing as needed to assure all illicit connections correction.

Procedure 1.5: Coordination with the MDNRE

Description: EMU will report any identified significant illicit discharges including those of untreated or partially treated sewage to the MDNRE within 24 hours after the discharge begins or is discovered. Corrective actions will begin immediately to eliminate the connection/discharge. The reports will cover the information required by the General Permit and Certificate of Coverage. If the discharge is of sewage, EMU will follow the reporting requirements of Section 324.112a of Part 31 of Public Act 451 of 1994, as amended including the notification of the local health department and daily newspaper and the use of the MDNRE web-based form (www.deq.state.mi.us/documents/deq-swq-csosso-eqp5857.doc).

EMU will submit an annual report to the City of Ypsilanti who will in turn submit to the MDNRE summarizing the activities completed including illicit connections and discharges EMU identified and corrected. For significant illicit discharges, EMU will list the pollutants of concern, the estimated load

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 9 of 12

and volume discharged, and the locations of the discharge into the system and to the waters of the state. For unresolved sewage discharges, the report will follow the reporting requirements of Section 324.112a of Part 31 of Public Act 451 of 1994, as amended.

Responsibility: EMU Physical Plant Plumbing Department

Measure: Copy of the referral and/or annual report

Schedule: Immediately after detection and annually for reporting

Procedure 1.6: Provide training to appropriate EMU staff on illicit connections and discharges, safety issues and natural occurring phenomenon. Determine the feasibility of coordinating this training with the other agencies and the local communities in the County.

Description: EMU will continue efforts to coordinate IDEP training with the other local communities and the Washtenaw County Drain Commissioner. As an individual or coordinated effort, EMU will provide training on illicit connections and discharges, safety issues and natural occurring phenomenon to appropriate EMU staff.

Responsibility: EMU Physical Plant

Measure: Meeting minutes, conclusions and recommendations and training records.

Schedule: Initial Training – upon new hiring – and as needed after initial training.

Procedure 1.7: Develop proper legal authority (if necessary) or document existing authority.

Description: As a self contained entity of the State of Michigan, EMU is authorized to operate and maintain its property according to building codes and laws of the State. Whereas the federal permit requires evidence of a regulatory mechanism EMU will conduct a thorough review of existing authorization, and amend as necessary, to ensure that:

- authorization adequately defines illicit connections and discharges;
- authorization prohibits illicit connections and discharges;
- authorization includes investigation of suspected illicit connections and discharges;
- authorization includes elimination of illicit connections and discharges;
- authorization includes enforcement capability.

Responsibility: EMU Physical Plant

Measure: Documentation of legal authorization

Schedule: December 2011

Procedure 1.8: Develop a complaint receipt and response system.

Description: EMU will continue work with the Washtenaw County Water Resources Commissioner and the other communities in the watershed in support of a County-wide system to receive and track complaints regarding storm water and/or construction site issues in the County. The use of any existing systems such as the computerized complaint tracking system that is used by the Washtenaw County Water Resources Commissioner will be promoted. EMU will advertise the complaint system telephone number and e-mail address through various means such as newspapers, posters, mailings, web sites, etc.

Responsibility: EMU Physical Plant, Department of Public Safety, Environmental Health and Safety.

Measure: Documentation of development and use of the system

Schedule: Ongoing

Procedure 1.9: Notify proper jurisdictions of illicit discharges or connections found by EMU staff.

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 10 of 12

Description: During the course of normal business, EMU faculty, staff and students may observe illicit connections or discharges that are not under its jurisdiction. EMU will notify the owner or agency with jurisdiction of the problem in writing. EMU will report any identified significant illicit discharges including those of untreated or partially treated sewage to the MDNRE within 24 hours after the discharge begins or is discovered. Corrective actions will begin immediately to eliminate the connection/discharge. The reports will cover the information required by the General Permit and Certificate of Coverage. If the discharge is of sewage, EMU will follow the reporting requirements of Section 324.112a of Part 31 of Public Act 451 of 1994, as amended including the notification of the local health department and daily newspaper and the use of the MDNRE web-based form (www.deq.state.mi.us/documents/deq-swq-csosso-eqp5857.doc).

EMU will submit an annual report through the City of Ypsilanti to MDNRE summarizing the activities completed including illicit connections and discharges EMU identified and corrected. For significant illicit discharges, EMU will list the pollutants of concern, the estimated load and volume discharged, and the locations of the discharge into the system and to the waters of the state. For unresolved sewage discharges, the report will follow the reporting requirements of Section 324.112a of Part 31 of Public Act 451 of 1994, as amended.

Responsibility: EMU Physical Plant

Measure: Documentation of the notification

Schedule: On-going

PROCEDURE 2. Develop a method for determining the effectiveness of the illicit discharge elimination activities which shall, at a minimum, result in the inspection of each storm water point source every five years unless an alternative schedule is approved by the MDNRE.

Procedure 2.1: Establish a tracking system to monitor progress in implementing the IDEP.

Description: Annually, or as established in the COC, EMU will prepare and submit a report summarizing its illicit discharge elimination efforts to MDNRE. The report will summarize the following:

- A. illicit connections/discharges identified through citizen complaints, WCWRC referral, inspections, sampling and/or sewer television and the corrective actions taken, including follow up inspections and sampling;
- B. results of inspections and sampling (including pollutant, estimated volume and load and location for significant illicit discharges);
- C. dry/wet weather storm water outfall inspections conducted;
- D. schedules for the elimination of unresolved problems/discharges;
- E. if applicable, the annual CSO/SSO report required by Section 324.3112a of Part 31 of Public Act 451 of 1994, as amended (www.deq.state.mi.us/documents/deq-swq-csosso-eqp5857.doc).

Responsibility: EMU Physical Plant

Measure: Annual report

Schedule: Annually, or as directed in the COC

Procedure 2.2: Identify and record, map and inspect outfalls from new construction.

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 11 of 12

Description: EMU will develop and implement a procedure to add any new outfalls that result from new construction. The procedure will involve identifying new outfalls and receiving waters through construction approval process, adding the outfalls to the existing drainage system map, and performing an initial dry weather inspection of the outfall.

Responsibility: EMU Physical Plant

Measure: Procedure documented and implemented. New outfalls mapped and inspected.

Schedule: Ongoing

PROCEDURE 3: Prepare an updated map of the location of each known storm water point source and the respective receiving water or drainage system.

Procedure 3.1: Update drainage system map based on field observations.

Description: EMU will continue field verification of the storm conveyance system and outfalls that are owned and/or operated by EMU based on the existing maps. This verification may be revised/updated during ongoing dry weather inspection, follow-up inspections, or occasional field reconnaissance. Exhibit B will be updated based on the field observations.

Responsibility: EMU Physical Plant

Measure: Outfall map updated.

Schedule: Ongoing

Procedure 3.2: Develop and implement a procedure to identify and record, map, and inspect outfalls from new construction.

Description: EMU will continue the procedure to add any new outfalls that result from new construction. The procedure will involve identifying new outfalls and receiving waters through construction approval process, adding the outfalls to the existing drainage system map, and performing an initial dry weather inspection of the outfall.

Responsibility: EMU Physical Plant

Measure: Procedure documented and implemented. New outfalls mapped and inspected.

Schedule: Ongoing

Procedure 3.3: Investigate the use of hand-held GPS monitors.

Description: EMU will investigate the use of hand-held GPS monitors during observation/sampling to more accurately map the location of the conveyances, outfalls, and problem areas.

Responsibility: EMU Physical Plant

Measure: Documentation of evaluation and decision.

Schedule: December 2011

EASTERN MICHIGAN UNIVERSITY	Revision: #0
PHYSICAL PLANT IDEP Policy and Procedures -	Date: March 31, 2011
	Page 12 of 12

VIII. PROGRAM APPROVALS

John Donegan, Chief of Operations, Physical Plant Date

Greg O'Dell, Director, Public Safety Date

Scott Storrar, Director, Facilities Planning and Construction Date

Bilal Sarsour, P.E. Director, Facilities Maintenance Date

Dieter Otto, Director, Custodial, Grounds Motor Pool Date

Kevin Abbasse, Manager Structural Life/ Safety Systems Date

Kathryn Wilhoff, Director, Health and Safety Date

IX. HISTORY

Rev	Change(s)
0	Initial release