

Oakland County Water Resources Commissioner Work Instruction EU-1702	DATE: 01/02/02 REV. #10: 4/30/19	Doc. File Name: WRC IDDE Prodecure.doc
	TITLE: Procedures for Illicit Discharge Detection and Elimination	APPROVED BY:
		Assistant Chief Engineer

1.0 Purpose

To provide procedures to be used by the Oakland County Water Resources Commissioner (WRC) Environmental Unit (EU) and other WRC staff assigned to do work under WRC's Illicit Discharge Elimination Program (IDEP) in order to detect and eliminate illicit discharge(s) of pollutants to County drains and watercourses throughout Oakland County and to ensure compliance with Oakland County's National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit.

2.0 Scope

This work instruction applies to the WRC EU Supervisor, EU Environmental Planner, Construction Drain Maintenance (CDM) Supervisor and assigned CDM Unit staff, Walled Lake Novi WWTF (WLN) Laboratory Supervisor and assigned Chemists, and other WRC Units as necessary to complete Illicit Discharge Detection and Elimination (IDDE) activities under WRC's IDEP.

3.0 Definitions

3.1 County Drains

County drains are defined as legally established open and enclosed stormwater drainage and collection systems that are operated and maintained by WRC under the Michigan Drain Code.

3.2 Waters of the State

Waters of the State are all surface waters as defined in Michigan Act 451, Part 31 that are under the jurisdictional authority of the State of Michigan and regulated by the Michigan Department of Environmental Quality (MDEQ).

3.3 County Municipal Separate Storm Sewer System (MS4) Drains

County MS4 drains are defined as sections of enclosed County drains that discharge to Surface Waters of the State and are regulated as MS4s under an NPDES General Stormwater Permit issued to Oakland County by the MDEQ.

3.4 County MS4 Outfalls (O) and Discharge Points (DP)

County MS4 O and DP's are defined as County drain structures that are identified as the outlet or connecting structure from a County drain designated as an MS4 to a Surface Water of the State (connection point defined as an MS4 O) or to an MS4 maintained by another jurisdiction (connection point defined as an MS4 DP).

3.5 Illicit Discharges

Illicit discharges are defined as the release of pollutants from human-related sources and activities, either intentionally, unintentionally or by accident, that enter or have the potential to enter, either directly or indirectly, into a defined open or enclosed stormwater drainage system, and have the potential to impact the water quality of a Surface Water of the State.

3.5.1 Illicit Connections

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An illicit connection is a direct-piped connection to an open or enclosed storm drain from a misconnected, illegal or unpermitted tap to the drain. These can include connections from public or private sanitary sewer systems, building floor drains and internal plumbing fixtures, and other sources such as illegal connections from septic systems and unpermitted taps from private or public property. Illicit connections are corrected by requiring that the illicit connection be removed, and that misconnected or unpermitted systems and fixtures are eliminated, repaired or properly connected to a sanitary sewer as required by the Michigan Drain Code, local Municipal and Public Health codes and ordinances, and applicable State law.

3.5.2 Non-point Source (NPS) Discharges

NPS discharges are indirect discharges of pollutant(s) that are intentionally, unintentionally, or accidentally released to, dumped into or allowed to enter an open or enclosed storm drain system. Sources of NPS pollutants can be related to: spills or leaks from vehicles, equipment, storage containers, and vessels; the improper use, storage, handling and disposal or illegal dumping of polluting materials and wastes; seepage from breaks or cracks in sanitary sewers and other underground utilities; runoff from storage piles and construction sites, and activities like car and equipment washing, and property maintenance where pollutants are washed into storm drains. NPS discharges are eliminated by requiring cleanup and removal of the pollutant source(s) and requiring corrective actions to be implemented. Elimination and correction of NPS discharges can involve numerous local, County, State and Federal regulatory and enforcement agencies depending on the types and quantities of pollutants involved and the location and source of the discharge.

3.6 Illicit Discharge Detection and Elimination (IDDE)

IDDE is defined as procedures, methods and activities used to detect illicit discharges and to locate and eliminate illicit discharge sources.

3.7 Illicit Discharge Elimination Program (IDEP)

The Oakland County IDEP defines the program used to detect and eliminate and report on illicit discharges under Oakland County's NPDES General Stormwater Permit. It includes IDDE activities used by WRC to detect and eliminate illicit discharges to County MS4 drains and other drains and watercourses as outlined in the IDDE procedures below.

4.0 Responsibility

4.1 The EU Supervisor is responsible for approval of IDDE procedures and oversight of all IDDE WRC-related activities and for ensuring compliance with the requirements of Oakland County's NPDES General Stormwater Permit.

4.2 The EU Environmental Planner is responsible for developing and updating IDDE procedures to be used by WRC staff with the approval of the EU Supervisor and for coordinating the assignment, completion and reporting of all IDDE activities with Unit Supervisors and assigned staff to ensure that any identified illicit discharges to County drains are eliminated and that

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IDDE activities are conducted and reported in accordance with Oakland County's IDEP and NPDES General Stormwater Permit requirements.

4.3 The WRC CDM Supervisor and WLN Laboratory Supervisor are responsible for assigning staff and ensuring that tasks assigned to their Units are completed and reported on as per procedures outlined in this work instruction.

4.3.1 Additional IDDE tasks and work items under the IDEP and General Stormwater Permit may be requested for assignment and completion as needed at the direction of the EU Supervisor and/or EU Environmental Planner.

4.4 Staff assigned IDDE work shall complete work assignments and report results per procedures outlined in this work instruction.

4.4.1 Staff may be requested to perform additional IDDE work under the IDEP and General Stormwater Permit as directed by their Unit supervisor.

4.5 Other WRC units may occasionally be requested to perform IDDE work related to WRC's IDEP and NPDES General Stormwater Permit. The WRC Supervisor and or Environmental Planner shall communicate and coordinate with appropriate Unit Supervisors for completion of work.

5.0 Procedure

5.1 Illicit Discharge Detection (IDD)

Actual and potential illicit discharges are discovered as the result of the investigation of surface water pollution complaints and referrals received by WRC and through dry weather screening (DWS) of drain structures, including County MS4 O/DPs, for evidence of illicit discharges during scheduled inspections of open and enclosed County drains.

5.1.1 Complaint Investigations

Complaints and referrals of surface water pollution received by WRC are investigated as per "Surface Water Pollution Complaints" Work Instruction, EU-1700.

5.1.1.1 Work instructions for complaint investigations include procedures for referral of suspect discharges for follow-up illicit discharge investigation.

5.1.1.2 Complaints outside of WRC's jurisdictional authority are referred to the local community, other MS4 owner, and/or the appropriate regulatory agency for follow-up investigation.

5.1.2 Hazardous and Significant Polluting Materials

Spills and discharges of hazardous and significant polluting materials are immediately reported and responded to as per WRC "Spill Response Procedure", P-043.

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5.1.3 DWS of County Drains

All open and enclosed County drains are inspected on a 3-year rotating cycle by CDM Field Crews as per "Drain Inspection, Maintenance and Cleaning" Work Instruction, CDM-0415.

5.1.3.1 Inspections include procedures for DWS of drain structures for evidence of illicit discharges and for recording and reporting of suspected illicit discharges.

5.1.3.2 DWS of County MS4 drain O/DPs are performed according to the CDM Unit's Drain Maintenance Inspection cycle (A, B and C).

5.2 Illicit Discharge Investigations (IDI)

Illicit discharge investigations are conducted in response to results of DWS inspections and investigations of surface water pollution complaints and referrals received by WRC that result in the identification of an actual or suspected illicit discharge of pollutants to County drains.

5.2.1 The EU Environmental Planner is responsible for evaluating suspected illicit discharges and for scheduling and coordinating upstream surveys and investigations on open and enclosed County drains, connected drains and water courses as necessary to locate and identify the source(s) of illicit discharges of pollutants.

5.2.2 The EU Environment Planner receives a referral for an IDI from the CDM Supervisor or opens a new IDI work order (WO) in CAMS and adds illicit discharge investigation inspections for each structure to be investigated under the WO.

5.2.3 The EU Environmental Planner reviews any complaint information, information forwarded from outside agencies and information forwarded by the CDM Supervisor regarding the suspected illicit discharge.

5.2.3.1 The EU Environment Planner investigates or coordinates with the CDM Supervisor to assign a CDM inspector to conduct an IDI.

5.2.4 The EU Environmental Planner or assigned CDM Inspector performs field investigations to collect additional information pertaining to the illicit discharge and may collect additional DWS data, water quality monitoring data, perform in-field chemical testing or collect water samples for laboratory analysis as needed in order to: 1) confirm that an illicit discharge has or is currently occurring; 2) to identify pollutant type(s) and concentrations; and (3), to identify potential source(s) of the discharge. Sampling will take place within 1-2 days of a suspected illicit discharge.

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- 5.2.4.1** The assigned CDM inspector coordinates with EU Environmental Planner on the types of tests to be conducted and water samples to be collected.
- 5.2.5** The EU Environmental Planner or assigned CDM inspector records any additional notes and observations regarding the illicit discharge and possible source(s) along with the result of DWS, water quality monitoring data, in-field chemical testing and the date/time of any water samples collected on the Illicit Discharge Investigation Inspection Form (DC-244) in CAMS for the structure being investigated.

 - 5.2.5.1** Water samples for lab analysis are collected in appropriate sampling containers utilizing standard methods for sample collection. Samples are labeled with the date, time, sample ID and name of the test being requested. Arrangements for sample analysis must be made in advance prior to collecting water samples.
 - 5.2.5.2** An IDEP/SWAT Analytical Sample Chain of Custody (COC) Form, DC-077, is completed for samples being taken to the WLN lab for analysis. A similar COC is completed for samples being taken to a contracted lab for analysis.
 - 5.2.5.3** The EU Environmental Planner opens a child General Lab WO for WLN in CAMS and submits it to the WLN Lab Supervisor for assignment. The EU Environmental Planner contacts the appropriate lab to arrange for sample drop-off. Samples are delivered to WLN or the contracted lab for analysis.
 - 5.2.5.4** The WLN Supervisor assigns a Chemist to complete requested testing.
 - 5.2.5.5** The assigned WLN Chemist completes the requested testing, records test results on the appropriate lab form and forwards results to the EU Environmental Planner.
 - 5.2.5.6** The EU Environmental Planner receives test results from the WLN lab or contracted lab and records results in the corresponding Illicit Discharge Investigation Inspection Form and closes out the General LAB WO in CAMS.
- 5.2.6** The EU Environmental Planner reviews result of IDI WOs and inspections and consults with the CDM Supervisor and staff as necessary to determine the need for any additional DWS or IDI activities.

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5.2.6.1 Where results of an IDI and associated inspections do not indicate that an illicit discharge has occurred and evidence does not indicate that an upstream discharge is suspected, the EU Environmental Planner or CDM Supervisor closes out the IDI WO and associated illicit discharge inspections.

5.2.6.2 Where results of an IDI and associated inspections do indicate that an illicit discharge has or is occurring or evidence indicates that upstream illicit discharges are suspected, the EU Environmental Planner may initiate additional upstream DWS inspections, IDD and IDI activities as necessary to identify and locate the source of Illicit discharge(s).

5.2.7 The EU Environmental Planner is responsible for prioritizing and coordinating the scheduling of additional DWS inspection and IDI activities in consultation with the EU Supervisor and in coordination with the CDM Supervisor.

5.2.7.1 The EU Environmental Planner uses criteria established in WRC’s IDEP under the NPDES General Stormwater Permit as guidance in evaluating suspected illicit discharge sources and for prioritizing and scheduling additional DWS inspection and IDI activities.

5.2.8 WRC staff are responsible for conducting IDI’s on County drains up to the limit of WRC’s jurisdictional boundaries and within WRC’s legal authority. Discharges found to be emanating from sources outside of WRC’s jurisdictional authority are referred to the local community, MS4 owner and/or appropriate regulatory agencies for follow-up investigation. Notifications are initially made by phone or e-mail within 24 hours by the EU Environmental Planner with the approval of the EU Supervisor and are followed up with a “Written Notice of Illicit Discharge”. The local community, MS4 owner and/or appropriate regulatory agencies are requested to take immediate actions to investigate the illicit discharge for potential source(s) and to notify WRC with the results of the investigation.

5.3 Illicit Discharge Elimination (IDE)

5.3.1 The EU Environmental Planner manages the process of ensuring that sources of illicit discharges identified during IDI’s are eliminated.

5.3.1.1 The EU Environmental Planner is responsible for notification and coordination of the elimination of illicit discharges from private or public properties and other sources discharging directly to County drains.

5.3.1.1.1 The EU Environmental Planner with approval of the EU Supervisor issues a “Written Notice of Illicit Discharge” to the property owner or other identified responsible party within 48 hours after confirmation of an illicit

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discharge source. The EU Environmental Planner also identifies any additional WRC Units, local community departments, Public Health Department and other County, State or Federal regulatory and enforcement agencies as necessary to assist in the elimination of the illicit discharge and includes them on the notification letter.

The Notice requires the property owner or other responsible party to take immediate action to eliminate the illicit discharge(s) to the County drain. The Notice requests the property owner or responsible party to contact WRC and other appropriate departments and regulatory agencies within two (2) weeks of receipt of the Notice and to submit corrective actions taken to eliminate the illicit discharge(s) or to submit a corrective action plan and schedule for the elimination of the illicit discharge(s) within 90 days.

5.3.1.1.2 The EU Environmental Planner coordinates with the property owner or other responsible party, and other identified regulatory and enforcement agencies to eliminate illicit discharge source(s).

5.3.2 Illicit discharges from properties and sources outside of WRC's jurisdictional authority are referred to the local community or other jurisdictional authority and other appropriate regulatory agencies for notification and removal of the illicit discharge source(s). The EU Environmental Planner follows up with the appropriate agencies on the status of elimination of the referred discharges.

5.3.3 The EU Environmental Planner is responsible for confirming that illicit discharges to County drains have been corrected and may initiate additional DWS and IDI WO's to collect DWS, water quality, and sampling data as needed to verify that discharges have been eliminated.

5.4 IDDE Training

5.4.1 The EU Environmental Planner is responsible for ensuring that all staff performing IDDE activities are appropriately trained as per the Oakland County IDEP and NPDES General Stormwater Permit requirements.

5.4.1.1 The EU Environmental Planner identifies appropriate training requirements, mechanisms and materials used in training and coordinates with Unit Supervisors on identifying appropriate staff and training levels to be provided, and for scheduling of training sessions and distribution of training materials.

5.4.1.2 Unit Supervisors are responsible for ensuring that all staff assigned IDDE work have the appropriate training.

5.5 IDDE Reporting

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5.5.1 The EU Environmental Planner is responsible for tracking and reporting of all IDDE activities and results for inclusion in biennial stormwater progress reports to be submitted to the MDEQ and as required under the NPDES General Stormwater Permit issued to Oakland County.

6.0 Related Documents

- 6.1** Work Instruction EU-1700
- 6.2** Procedure P-043
- 6.3** Work Instruction CDM- 0415
- 6.4** CDM Inspection Form DC-224
- 6.5** IDEP / SWAT Field Investigation Summary Form DC-244
- 6.6** IDEP / SWAT "Chain of Custody" Form DC-077
- 6.7** Oakland County NPDES General Stormwater Permit

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Change Record

Revision	Date	Responsible Person	Description of Change
Release	01/02/02	Document Control Person	
	06/20/02	Document Control Person	Added Numbering System
Revision #1	09/04/02	Document Control Person	Deleted Document Location and Revised Distribution List
	01/02/03	Document Control Person	Revised Distribution List
Revision #2	03/03/03	Document Control Person	Revised 3.0 and 4.2.1
Revision #3	08/06/03	Document Control Person	Revised Flow Chart
Revision #4	08/11/03	Document Control Person	Revised 4.1.2 and 4.2.2.3. Deleted 4.13
Revision #5	11/10/03	Document Control Person	Revised 1.0, 2.0, 3.0, 4.0 and 5.0
Revision #6	03/01/04	Document Control Person	Revised 4.1.1 and added 5.2
Revision #7	06/16/04	Document Control Person	Moved from Procedure P-020 to Watershed Management WS-1702; Revised Distribution List
Revision #8	02/08/05	Document Control Person	Revised document to reflect Environmental Unit to replace Watershed Management Unit. WS-1702 changed to EU-1702.
Revision # 9	5/28/2013	Document Control Person	Revised entire EU-1702 document to CAMS procedure.
Revision #10	3/6/2019	Document Control Person	Revised entire EU-1702 document to update procedures

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