

# Oakland County Parks and Recreation Illicit Discharge Elimination Program (IDEP) Guidelines

**TITLE:**  
**Procedures for Illicit Discharge Elimination Program**

**DATE:** 03/25/2015

**APPROVED BY:**

Natural Resources Planner

## Purpose

Describe the process to detect and eliminate illicit discharge(s) on Oakland County Parks and Recreation Commission (OCPR) owned property and to ensure compliance with the National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water Permit.

## Scope

This work instruction applies to OCPR and/or designated employee(s).

## Responsibility

The OCPR Facilities Maintenance and Operations Department, which includes the Natural Resources Unit. Key staff, including the Natural Resources (NR) Planner, Chief of Facility Maintenance and Operations, Project Managers, GIS/CAD Technician, Field Technicians, and other designated Parks and Facility employees, are responsible for following these procedures.

## Procedure

The Natural Resources (NR) Unit works with Geographical Information Systems (GIS) to identify waters of the state and Municipal Separate Storm Sewer Systems (MS4's) in Oakland County which are subject to Phase II Storm Water Permit Regulations. The Natural Resources Planner serves as a liaison to the Oakland County Stormwater Committee which facilitates standards and best practices for IDEP among county departments.

## Identification and Mapping of Outfall and Discharge Point (DP) Locations

The NR Unit is responsible for identifying Outfall and Discharge Point (DP) locations. The Natural Resources Unit reviews existing IDEP Outfall Inventory data, GIS data, park maps, and as-built plans (if available) to identify the Outfall and DP location(s). The Natural Resources Unit collects GPS data as necessary to verify existing or add new Outfall and DP locations. The Natural Resources Unit collects the GPS points and processes the data in-house.

OCPR's City Works Work Order System is utilized to initiate, track, document, and close work related to identifying and mapping Outfall and DP locations in the park system. All historical and current MS4 Outfall and DP data is currently housed in GIS and all data is in the process of QA/QC for addition to the OCPR Collaborative Asset Management System (CAMS).

## Dry Weather Screening (DWS)

The NR Planner is responsible for coordinating DWS inspections at MS4 Outfall/DP locations within OCPR parklands in order to detect pollutants associated with illicit discharges. The NR Planner reviews previous dry weather screening results, historical water quality data and any pertinent

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complaint information in order to determine a schedule for DWS of Outfall and DPs. DWS should occur, at a minimum, once every five (5) years at each OCPR-maintained MS4 Outfall or DP.

The NR Unit Field Technician(s) completes the DWS inspections and collects GPS data (if needed), visual observation data, water quality data, and water samples as needed. Water quality parameters used for DWS inspection are listed on the attached Table.

Visual and physical observation data is collected and recorded on GPS units during the DWS inspections. GPS points and digital photographs of Outfalls and DPs are collected, as needed. Digital photographs are downloaded by the IDEP Environmental Planner and stored on the WRC network server.

Water quality data is collected if dry weather flow is observed. Sampling for ammonia and surfactants is conducted at outlets with dry weather flow using in-field testing kits as per manufacturer instructions. The results are recorded on the GPS-based DWS inspection form. Water samples for *E. coli* laboratory analysis are collected at outlets with dry weather flow. Samples are labeled appropriately, and transported to the Oakland County Health Department (OCHD) for analysis. NR Unit Staff coordinates with OCHD Lab to obtain results and determine need for corrective actions.

OCPR's City Works Work Order System is utilized to initiate, track, document, and close work related to identifying and mapping Outfall and DP locations in the park system.

GPS data and photos associated with MS4 Outfall and DP DWS inspections are processed by the NR Unit GIS/CAD Tech. All historical and current MS4 Outfall and DP data is currently housed in OCPR's GIS database system on the Oakland County Information Technology (OCIT) Department's network and servers. All data is in process of QA/QC for addition to the OCPR Collaborative Asset Management System (CAMS).

## IDEP Investigations

Illicit Discharge Investigations are conducted in response to DWS results and/or surface water pollution complaints that are received. The NR Planner collaborates and/ or contracts with WRC-designated staff to complete IDEP Investigations involving Park properties.

Investigation activities may include a survey of the MS4, storm drain system or surface water upstream of the impacted Outfall or DP, and/ or implementation of dye-testing where appropriate, in order to locate the illicit discharge source(s). This process may involve the collection of GPS data, digital photographs, visual observation data, water quality data and water samples as necessary, to identify and confirm illicit discharge source(s).

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OCPR's City Works Work Order System is utilized to initiate, track, document, and close work related to IDEP Investigations. A Summary of Findings is created by the NR Planner, and filed by park within OCPRs network server.

## Illicit Discharge Elimination

The NR Planner, in conjunction with other relevant OCPR Staff, is responsible for managing the process to insure that the sources of illicit discharges discovered during illicit discharge investigations are found and eliminated if discharge originated within OCPR jurisdiction.

Illicit Discharges from sources outside the jurisdiction of OCPR are referred to the local municipality, or other jurisdictional authority for follow-up investigation. OCPR may help to negotiate with the responsible party, community, municipalities, Oakland County Health Department or other entities to eliminate illicit discharge(s). OCPR may initiate follow-up illicit discharge investigations as necessary to verify that illicit connections to OCPR property have been eliminated.

## Equipment and Data Management

GPS unit equipment and data is managed and maintained by the NR GIS/CAD Technician. Water quality testing data is managed and maintained by the NR Unit. The NR Planner or designated staff replaces Chemical Testing Kits, as needed.

## Reporting

The NR Planner reports IDEP Outfall and DP DWS information along with illicit discharge investigation results to the State of Michigan in an annual/biennial report, in accordance with the NPDES Phase II Storm Water Permit. This report is submitted by the permit holder, WRC. OCPR is responsible for reporting illicit discharges and spills to the "Surface Water of the State" as required under the Federal NPDES Phase II Storm Water Permit.

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**Table 1. Water quality parameters to be used in the evaluation for illicit discharges.**

Parameter	Detection Method	Detection Limit	Range	Trigger Value	State Surface Water Quality Standard
Odor	Physical Examination	Presence	NA	Type/Strength (Sewage, odor, petroleum products)	In concentrations which impair use for public, industrial, or agricultural water supply
Color	Physical Examination	Visual	NA	Unnatural discoloration	Unnatural quantities injurious to designated use
Clarity	Physical Examination	Visual	Clear-Opaque	Unnatural turbidity	Unnatural quantities injurious to designated use
Floatables	Physical Examination	Visual	NA	Oil sheen, sewage, soap suds	Unnatural quantities injurious to designated use
Deposit/Stains	Physical Examination	Visual	NA	Type/quantity	Unnatural quantities injurious to designated use
Vegetation Change	Physical Examination	Visual	Normal to location	Excessive growth, dead, or none where expected, algal blooms	Plant nutrients or toxic substances
Structural Damage	Physical Examination	Visual	NA	Damage due to corrosive or erosive conditions	NA
<i>E. coli</i>	Laboratory Analysis	ND	0-1,000,000 + cfu/100ml	>1,000 cfu/100ml	>1,000 cfu/100ml >3,000 cfu/100ml
Surfactants	Chemical – Field Kit	0.25 mg/l	0-3 mg/l	>0.5 mg/l (Non-urbanized) >0.75ppm (Urbanized)	NA
Ammonia	Chemical – Field Kit	0.1 – 1.0 mg/l	0.1 – 1.0 mg/l	>1mg/l	NA

(Water quality data is used as a general indicator in evaluating potential for contaminating pollutants associated with illicit discharge sources. Data is subject to interpretation and does not imply any regulatory status or legal limit).