



# WILLIAM & MARY

CHARTERED 1693

Office of the Associate Vice President for Facilities Management  
P.O. Box 8795  
Williamsburg, VA 23187-8795  
(757) 221-2275

## **DIRECTIVE 762**

**TITLE:** Illicit Discharge Detection and Elimination

**EFFECTIVE DATE:** 01 Oct 2023

**REVISION OF:** Second version

### **I. SCOPE:**

This directive applies to all members of the Facilities Management Department.

### **II. PURPOSE:**

The purpose of this procedure is to identify and address any illicit discharges detected during storm sewer outfall inspections or otherwise reported illicit discharges impacting the storm sewer system.

### **III. POLICY:**

#### **Background:**

The College of William & Mary (W&M) has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes W&M to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act.

Since storm drain systems are not connected to a sanitary sewer treatment plant, water traveling through the storm drain system flows directly to local streams, rivers and lakes untreated. An illicit discharge to the storm system is generally defined as any discharge that is not composed entirely of stormwater. W&M's MS4 Program "shall include all procedures developed by the operator to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping to the MS4."

#### **Responsibilities:**

1. Facilities Management Grounds staff
  - a. Responsible for reporting any illicit discharges discovered during outfall inspections to the Associate Director of Utilities or appropriate Facilities Management leadership if the Associate Director is unavailable.

2. Associate Director of Utilities
  - a. Maintains the Illicit Discharge Log
  - b. Provides annual training to FM staff.
  - c. Provides annual review and update, as appropriate, of this FM Directive 762.
3. Director, Environmental Health & Safety
  - a. Responsible for reporting the illicit discharge to the appropriate regulatory agencies as required.
  - b. Provides technical assistance to emergency responders for hazardous materials spills.
  - c. Prepares the annual Illicit Discharge Summary report and posts it to the FM MS4 web page.
4. Facilities Management Directors
  - a. All FM directors are responsible for ensuring that employees are properly informed of and trained on how to prevent illicit discharges from their operations and understand how to trace an illicit discharge upon discovery.
  - b. Managers and supervisors are responsible for ensuring training is conducted with the most recent version of this FM Directive 762.
5. Personnel Performing the Job
  - a. All FM Staff are required to understand and follow these procedures upon receipt of proper training.

**Procedures:**

1. Initial Notification
  - a. The Associate Director (AD) of Utilities will be notified of any illicit discharge detected during a storm sewer outfall inspection or otherwise identified. A complete description of the discharge and as much information as possible will be provided.
    - Any time the AD of Utilities or other FM staff are notified of an illicit discharge, the Director, EH&S shall also be notified of the illicit discharge. EH&S staff shall immediately follow up on the illicit discharge report.
  - b. When the contaminant is discovered, the Associate Director of Utilities will enter information about the incident in the Illicit Discharge Investigation log. The log will describe the nature of the contamination and all response and follow-up measures taken to clean it up.
2. Discharge Identified – Primary Option
  - a. If the contaminant is identified as a sanitary sewer overflow, the Sanitary Sewer Overflow Response SOP will be followed.
  - b. Petroleum spills are to be cleaned up in accordance with the University's Spill Prevention Control and Countermeasures Plan (SPCC).

- c. If the contaminant is identified as dangerous, immediately call the fire department and notify the EH&S Office for technical assistance on the clean-up. For more information on hazardous materials spill response, refer to the [ISC Hazardous Materials Incident Response](#) procedure and the Pollution Prevention Plan.
- d. If the source of the discharge can be immediately identified such as improper trench dewatering, wash water, or improper disposal of liquids, the staff causing the illicit discharge should be immediately notified to cease operations. Their supervisor should be contacted and re-training of appropriate staff should take place as soon as possible, but in no less than one week.
  - If a contractor is causing the illicit discharge on the W&M property, the W&M Staff responsible for contractor oversight should also be contacted. The illicit discharge should be brought to the contractor's attention and the contractor should be made aware of appropriate means for handling trench dewatering, wash water, or other liquids on W&M property.

### 3. Discharge Not Identified –Secondary Option

If the nature and source of the discharge is not immediately obvious, use strategies to test the discharge and locate the source of contamination.

- a. Use GIS software to strategically check manholes in the upstream tributary storm sewer system for contamination.
  - Visual observations should be used to look for presence of flow, colors, odors, floatable materials, or deposits or stains. The GIS map can then be used to trace the path of manholes back to the potential source
  - Manholes closest to the outfall should be investigated first, with staff progressively moving up the sewer network and inspecting manholes until it can be determined either where the source is coming in or between which two manholes the source is coming in.
- b. Dye testing can be conducted to determine if there are any improper connections between the sanitary sewer and the storm sewer. Dye tests can also provide valuable information as to whether stormwater systems are malfunctioning, and can confirm water flow direction.
- c. Camera equipment can also be used to locate the source of contamination, by exploring the storm sewer system and looking for pollution between manholes.
- d. Smoke testing can be used to identify cross-connections with the sanitary sewer or other underground sources caused by damage to the storm drain. Smoke testing should be used as a last resort. If used, personnel within the area should be notified in advance so as not to cause alarm.

Once the source of an illicit discharge is confirmed, Utilities staff should fix or eliminate the discharge. If the source of the illicit discharge is not W&M, the

Associate Director of Utilities should forward information on the illicit discharge to James City County or City of Williamsburg as applicable.

#### 4. Dry Weather Screening Protocols

Dry weather screening and an Outfall Reconnaissance Inventory are performed annually for all 55 outfalls within the College's MS4 service area. Dry weather screening at each outfall includes assessing and inspecting the physical characteristics of the outfall, inspecting the outfall and plunge pool or immediate downstream area for physical evidence of an illicit discharge or pollution release, performing various chemistry tests on the discharge (if present), and investigating any likely illicit discharge.

At a minimum, field staff document screening assessment information at each outfall and visual screening includes the following:

- i. Screening date, location/site descriptions, staff names, and other background data,
- ii. The unique outfall identifier, physical characteristics, and flow description (if applicable).
- iii. Time since the last precipitation event and the estimated quantity of the last precipitation event.
- iv. Descriptions of any excessive algae or abnormal vegetation, damage and structural problems, stains, and plunge pool condition (if applicable)
- v. Whether or not a discharge was observed; and
- vi. If a discharge was observed, the estimated discharge rate (e.g., width and depth of discharge flow rate) and visual characteristics of the discharge (e.g., odor, color, turbidity, sheens, clarity, floatable, deposits or stains, vegetation condition, structural condition, and biology)."
- vii. Indicate whether the outfall needs a follow-up visit to test discharge.

The City's Outfall Reconnaissance Inventory (ORI) or Dry Weather Screening (DWS) checklist can be found in appendix C of MS4 Program Plan.

#### 5. Follow-Up

- a. Upon confirmation that the illicit discharge has been eliminated, Grounds staff should follow up within 48 hours to revisit the site and ensure the illicit discharge has been completely eliminated and that additional issues have not occurred as a result of clean-up efforts. Follow up should be documented on the Illicit Discharge Investigation log for the site.

#### 6. Annual Review of Procedure/Training

- a. The Associate Director of Utilities is responsible for conducting annual training and annual review of this procedure with the appropriate staff.

#### 7. Regulatory Impacts

- a. Illicit discharges such as exterior surface wash water are prohibited by the University's MS4 permit and by the City of Williamsburg's Water Protection Ordinance. The University's storm sewer system is directly connected to the

City's; therefore, any discharge into W&M's storm system impacts the City's storm sewer system. This offense is punishable by civil and criminal penalties as illicit discharges constitute a threat to the public health, safety, and welfare, and are deemed public nuisances.

**IV. APPROVAL, AMENDMENT, AND GUIDANCE:**

This policy was approved by the Associate Vice President of Facilities Management. The Director of Operations and Maintenance interprets this policy and is directed to review this policy periodically to ensure continued effectiveness.

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**Samuel Hayes, P.E.  
Chief Facilities Officer  
Facilities Management**

