

# **Municipal Separate Storm Sewer System (MS4)**

## **Stormwater Facility Inspection Program Procedures**

**Version 1 - September 17, 2018**



## **Introduction**

The proper inspection and maintenance of post construction stormwater management facilities (SWMFs or facility) is integral to ensuring each facility operates at its intended level of service and sufficiently protects the surrounding environment. The purpose of this document is to provide written procedures for the inspection and maintenance of any facility, County-owned or private, discharging to the County's municipal separate storm sewer system (MS4).

This manual supplements the County VSMP Administrative Guidance Manual's Post Construction Inspection section by providing basic inspection considerations and procedures leading up to, during, and after an inspection of a facility.

### **1. Stormwater Facility Inspection Evaluation Strategy**

A facility will be evaluated by an overall evaluation for compliance in operating for the intended function with a determination of 'yes', 'no', or 'conditionally' operates as intended. The respective conditions for providing the evaluation are as follows:

- Yes, if the facility is adequately operating. A facility achieving a passing grade should have no structural or operating issues. Minor maintenance requirement observations or concerns may be observed and reported in the inspection as a conditional pass or fail while the overall function of the facility is achieved.
- A conditional pass evaluation will be determined when routine maintenance is recommended. A facility may should have maintenance, structural, or operating issues but is evaluated as currently performing at an acceptable level of service and would be expected to continue to operate effectively based on the completion of the action(s) recommended in the inspection evaluation on a routine basis.
- A no, or fail recommendation if the facility is evaluated as not being in a condition to operate effectively and needs repairs to correct degraded structural or operating conditions, or that conditions at the time of inspection indicate that there is a reasonable expectation of degradation to an extent that the facility will become a physical danger, or repairs are necessary to address significant structural or operating concerns.

### **2. Pre-Inspection Procedures**

- a. Pre-inspection Preparation
  - i. If notification is required, confirm notification letter was sent and received via the delivery receipt if the notification was sent by certified mail or an email response if electronic correspondence was used.
  - ii. Review available information
    1. As-built Drawings
    2. Owner Information (If private)
    3. Site Maps/Aerial Photos
    4. Previous Inspection Report, if applicable
    5. Outstanding Maintenance Work Orders
    6. Proprietary/Non-Proprietary

7. Fill out inspection form background information
8. SWMF Identification Number (ID #)
9. Date/Time
10. Inspection Type
  - a. Routine Inspection
  - b. Follow-up – Inspection follow-up after maintenance request. Previous Inspection date
- b. Personal Protective Equipment (PPE) Check for all inspection personnel.
  - i. Safety Vest
  - ii. Steel Toe Boots
  - iii. Optional: Gloves, Hard Hat, Safety Glasses, etc.

### **3. Safety**

- a. Field activities will be carried out on multiple sites which may include, but are not limited to:
  - i. Sites close to the flow of human and vehicular traffic
  - ii. Sites located next to rivers and creeks
  - iii. Sites prone to flooding
  - iv. Hazards may include physical hazards, biological hazards, and natural phenomena.
- b. Review site access considerations to insure that the site access is lawful
- c. Notify other staff of locations to be inspected and anticipated inspection timeline.

### **4. Field Inspection**

- a. The objective of a SWMF inspection program is to ensure that each facility is adequately operated and maintained throughout the life of each facility. Inspection scheduling and the tracking of required maintenance of each facility is the responsibility of the Environmental Services Department.
- b. Types of inspections - For each SWMF, there are two types of inspections that may be conducted: routine and follow-up. Routine inspections are conducted annually for publicly owned SWMFs, and a minimum of once every five (5) years for privately owned SWMFs. During routine inspections, the Inspector will evaluate a SWMF and determine whether routine maintenance is recommended, or whether repairs to the SWMF are necessary. Follow-up inspections are typically only conducted following routine inspections on privately owned SWMFs that require repairs. If a publicly owned SWMF requires repairs, a service request will be created to address these repairs and the annual inspection process will be followed. Should the service request result in the need for the contracting of outside services, an inspection performed as a part of the contract closeout would be performed to document the completion of contracted repair or maintenance work.
- c. **Inspection and Report Process**
  - i. The County Stormwater Management/BMP Inspection fillable form will be completed as a part of facility inspections. The inspection form is available in Appendix Q of the VSMP Administrative Manual. Each inspection item will be evaluated and assessed as Pass (P), Fail (F), Conditionally Pass (CP),

or not applicable (N/A). An indication that a photograph was taken and relevant if photographs are taken based on a particular inspection item. The inspection form allows for relevant observations and remarks to be added for a particular inspection item.

1. Appendix Q also contains the Virginia Stormwater Manual O&M checklists for use as an additional reference in evaluating specific BMPs.
  2. The City of Virginia Beach MS4 Program Plan Appendix D, "SWMF Inspection and Maintenance Guidance Document" may also be used as an additional reference.
- ii. A completed inspection report will consist of the following
1. The notification letter and conformation of delivery, if required.
  2. The completed inspection form with relevant observations and remarks, as well as recommended maintenance or repair actions.
  3. Private facility reports will also include:
    - a. A compliance, first non-compliance letter, or second non-compliance letter, as appropriate. Compliance letters will repeat the recommended maintenance or repair actions provided in the inspection.
    - b. A reference to the location of the long term maintenance responsibilities of the facility owner, if appropriate.