



# New Hanover County

## STORMWATER SYSTEM OPERATION & MAINTENANCE PLAN AND AGREEMENT

The development and execution of this Operation & Maintenance (O&M) Plan and Agreement is a required component of the Stormwater Management Plan (SWMP) described in Section 2.3.2 of the New Hanover County Stormwater Design Manual. The SWMP is a prerequisite to obtaining a Stormwater Permit and is kept on file in the office of the County Engineer. The required schedule and procedures for the inspection, operation, and maintenance of all stormwater conveyance facilities and stormwater control measures (SCMs) are identified below.

### 1 Stormwater Conveyance Facilities

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#### Pipes, Culverts, Open Channels, Catch Basins, Inlets

As a minimum, the following maintenance items shall be performed:

- \_\_\_\_\_ 1. Open channels, ditches, and swales shall be periodically, annually at a minimum and after any major rainfall event such as a hurricane, tropical storm, or flooding, inspected for blockage and erosion. They shall be kept free of undesirable growth and other forms of blockage and mowed or maintained to the design cross-section and area as shown on the Stormwater Management Plan accepted by the county and on file in the office of the County Engineer. Growth on the slopes and bottom shall not exceed a height of 8 inches. Areas of excessive channel or bank erosion shall be re-stabilized and maintained to mitigate potential further erosion.
- \_\_\_\_\_ 2. Storm drainage pipes, roof drain leaders and culverts shall be periodically, annually at a minimum and after any major rainfall event such as a hurricane, tropical storm, or flooding, inspected for debris and sand build-up. They shall be cleaned as necessary to provide for the free conveyance of stormwater as designed.
- \_\_\_\_\_ 3. Storm drainage catch basins and inlets shall be periodically, annually at a minimum and after any major rainfall event such as a hurricane, tropical storm, or flooding, inspected for debris and sand build-up. They shall be cleaned as necessary to provide for the free conveyance of stormwater as designed.

## 2 Stormwater Control Measures (SCMs)

### Detention, Infiltration/Retention

As a minimum, the following maintenance items shall be performed:

- \_\_\_\_\_ 1. The inspection schedule and operation and maintenance provisions for all SCMs shall be performed per the general O&M requirements indicated in Part A-7: Operations and Maintenance, and the specific O&M requirements for individual SCMs indicated in Part C: Minimum Design Criteria and Recommendations for Stormwater Control Measures of the [NCDEQ Stormwater Design Manual](#).
- \_\_\_\_\_ 2. An NCDEQ O&M EZ form shall be completed for each SCM included in the Stormwater Management Plan accepted by the county and on file in the office of the County Engineer.
- \_\_\_\_\_ 3. Grassing around any detention/retention facility shall be maintained to prevent the erosion of these areas. The areas shall be mowed to maintain the aesthetic quality of the site and to prevent erosion and a reduction in capacity of the stormwater system.
- \_\_\_\_\_ 4. Landscaping of the area around the detention/retention facility shall be maintained and shall not reduce the capacity or hinder operation and maintenance of the stormwater system.
- \_\_\_\_\_ 5. The detention/retention facility shall be maintained at the design depth as shown on the Stormwater Management Plan accepted by the county and on file in the office of the County Engineer. Debris and sedimentation shall be removed if:
  - \_\_\_\_\_ a. The primary outlet capacity is impaired or clogged, and/or
  - \_\_\_\_\_ b. The depth of the facility is more than one foot above the original facility depth, or the facility volume is reduced by 25% of the design impoundment volume.
- \_\_\_\_\_ 6. Pipe installed to provide detention shall be kept free of sediment build-up. The detention facility shall be maintained in accordance with the design volume as indicated in the Stormwater Management Plan accepted by the county and on file in the office of the County Engineer. Debris and sedimentation shall be removed if:
  - \_\_\_\_\_ a. The storage volume is reduced by 25% or more, and/or
  - \_\_\_\_\_ b. The sediment and/or debris restricts the free flow of stormwater.
- \_\_\_\_\_ 7. The pipes, stone, and soils installed to provide infiltration shall be kept free of sediment build-up. The infiltration system shall be maintained in accordance with the design infiltration capacity as indicated in the Stormwater Management Plan accepted by the county and on file in the office of the County Engineer. Debris and sedimentation shall be removed if:
  - \_\_\_\_\_ a. The design infiltration capacity is impaired, and/or
  - \_\_\_\_\_ b. The sediment and/or debris restricts the free flow of stormwater into the infiltration system and surrounding soils.
- \_\_\_\_\_ 8. The infiltration system shall be removed and replaced with new material when the system no longer permits the stormwater to freely infiltrate within 5 days into the surrounding soils by proper maintenance.

### 3 Agreement Certification

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I acknowledge and agree by my signature below that I am responsible for the inspection, performance and maintenance procedures listed above, and those described on the attached NCDEQ O&M EZ form for each SCM included in the Stormwater Management Plan accepted by the county and on file in the office of the County Engineer. I agree to notify New Hanover County of any problems with the system and prior to any changes to the system, or the change of responsible party.

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public for the State of \_\_\_\_\_,

County of \_\_\_\_\_ do hereby certify that \_\_\_\_\_

personally appeared before me this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_, and acknowledge

the due execution of the foregoing maintenance agreement requirements.

Witness my hand and official seal,

SEAL

My commission expires: \_\_\_\_\_