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## Stormwater Operations and Maintenance Plan

### SAND FILTER

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Regular inspection and maintenance are necessary to preserve long-term functionality of Stormwater Control Measures “SCMs” per the original design intent. This Plan outlines the Town of Chapel Hill requirements for regular inspection and maintenance of Sand Filter SCMs. The Owner as defined in the Agreement shall keep a copy of this Stormwater Operations and Maintenance Plan, the SCM Inspection and Maintenance Log, and a copy of the approved As-Built Plans in a known set location and made available to the Town of Chapel Hill upon request.

Annual inspections shall be performed by a qualified licensed Professional Engineer or Landscape Architect. Routine maintenance and inspection shall be performed by a qualified professional with NCSU Stormwater Inspection and Maintenance Certification or similar certification.

The qualified professional shall maintain a **SCM Inspection and Maintenance Log** and make available to the Town of Chapel Hill upon request. All inspections shall be recorded in the log according to the frequency in the Inspection and Maintenance Table (Table 1 below) and within 24 hours after storm events that exceed 1.0 inch of rainfall. Any deficit SCM elements noted during inspection shall be recorded in the log and immediately corrected, repaired, or replaced. All routine and corrective/emergency maintenance activities shall be recorded in the log. The log template can be found at the Town of Chapel Hill Stormwater Control Measures [website](#).

An **Annual Inspection and Maintenance Report** shall be submitted to the Town of Chapel Hill Stormwater Department. The report shall detail the status of the SCM and maintenance performed as outlined in the [SCM Inspection Report Guidelines](#). A copy of the annual report shall be submitted to the Town of Chapel Hill Stormwater Management Division beginning one year after issuance of the Certificate of Occupancy.

#### **REQUIRED INSPECTION AND MAINTENANCE TASKS FOR SAND FILTERS**

*NOTE: The following inspection and maintenance table is not an exhaustive list of inspection and maintenance tasks. It is the responsibility of the professional inspecting the facility to perform comprehensive maintenance for the SCM to be operational.*

**Table 1: Inspection and Maintenance Provisions for Sand Filters**

| FREQUENCY OF INSPECTIONS        | MAINTENANCE ACTIVITIES   |
|---------------------------------|--|
| Upon completion of construction | <ul style="list-style-type: none"> <li>• If a pretreatment grass filter strip has been built, water twice a week until the grass become established (commonly 6-8 weeks), depending on rainfall.</li> </ul>  |
| Once every quarter              | <ul style="list-style-type: none"> <li>• Maintain any grass at the perimeter of the sand filter to a height of approximately six to eight inches.</li> <li>• Check inlet, outlet, and conveyance system for any obstructions or clogging. Remove accumulated grit, leaves, and debris and dispose off-site.</li> <li>• Remove any trash present on the sand filter surface.</li> <li>• Inspect for prolonged ponding and bare or eroding areas and make adjustments as necessary.</li> </ul>   |
| Twice during the growing season | <ul style="list-style-type: none"> <li>• Remove any vegetation growing on the surface of the sand filter preferably by hand.</li> </ul>  |
| Annually                        | <ul style="list-style-type: none"> <li>• Skim the first inch of sand media.</li> <li>• If a sedimentation chamber is present, pump out oil and grit.</li> </ul>  |
| As Needed (Typical Problems)    | <p><b>Structural Integrity</b></p> <ul style="list-style-type: none"> <li>• Replace or repair any cracked, separated or damaged inlet pipes, outfalls, or other structural elements.</li> <li>• Remediate bare soils or erosive gullies by regrading the soil to remove the gully, plant ground cover and water until it is established.</li> <li>• If erosion has occurred within the forebay or pretreatment area, provide additional erosion protection such as reinforced turf matting or riprap.</li> </ul> <p><b>Functionality</b></p> <ul style="list-style-type: none"> <li>• Sediment Accumulation <ul style="list-style-type: none"> <li>○ Maintain stable ground cover in the drainage area.</li> <li>○ Sweep or vacuum sediment on pavement in the contributing drainage area.</li> <li>○ If sediment has accumulated in the pre-treatment area to a depth greater than six inches, remove the top few inches of drainage media and dispose of it in a location where it will not cause impacts to the SCM or a stream. Search for the source of the sediment in the drainage area and remedy the problem.</li> </ul> </li> <li>• Filter Media Failure <ul style="list-style-type: none"> <li>○ If water is ponding on the surface for more than 24 hours after a storm event, check to see if the underdrain collection system is clogged and flush if necessary. If water still ponds, remove the top few inches of filter bed media and replace. If water still ponds, consult an appropriate professional. All the sand filter media may need to be replaced.</li> </ul> </li> </ul> |

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|  | <p>For additional information or if damage has occurred at the outlet which effects the receiving water, contact the Town at Chapel Hill Stormwater Management at 919-969-7246 (RAIN).</p> |
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