



Stormwater Operation and Maintenance Plan

RAINWATER HARVESTING

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 Rainwater Harvesting SCMs. The Owner as defined in the Agreement shall keep a copy of this Stormwater Operations and Maintenance Plan, any applicable proprietary manufacturer’s O&M 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 unless noted in the table below.

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 RAINWATER HARVESTING SCMs

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 Rainwater Harvesting

FREQUENCY OF INSPECTIONS	MAINTENANCE ACTIVITIES
Monthly (can be performed by the owner)	<ul style="list-style-type: none"> • Remove debris, trash and sediment on the rooftop and from gutters and clean all screens and filters. • Check the positioning and installation of gutters to ensure the roof runoff water is captured. • If applicable, ensure that the pump is operating, and water is being used as intended. • Check the conditions inside the cistern, first flush diverter and at the overflow discharge and clean as necessary.
Yearly	<ul style="list-style-type: none"> • Inspector should record if use is met as per the terms of the stormwater requirements recorded with the as-built plans. • Flush the cistern at minimum yearly to remove sediment and debris. • Clean in-line pump filters, pump intake filters, and spigot filters.
As needed (Typical Problems)	<p>Structural integrity</p> <ul style="list-style-type: none"> • If the system or any piping is damaged or leaking, make any necessary repairs or replace if the damage is too large for repair. Check hoses and pipes for leaks after freezing temperatures. • Stabilize any erosion observed at the overflow discharge point. • Ensure that the cistern is stabilized in advance of high wind events. <p>Functionality</p> <ul style="list-style-type: none"> • If any of the piping becomes clogged, attempt to flush it or replace the pipe if it cannot be unclogged. Check that all incoming pipes have a filter or screen. • If water is flowing out of the overflow pipe during a design rainfall or small storm (i.e. 1" of rain), check system for clogging, pump functionality, and non-potable usage on-site. Repair as needed so design storage volume can be properly stored during a design storm. • If the pump is not operating properly, check to see if the system is clogged and flush if necessary. If it is still not operating, then consult an expert. <p>Cistern Conditions</p> <ul style="list-style-type: none"> • If sediment and debris accumulate in the cistern, flush the cistern and check that all incoming pipes have a filter or screen • If algae growth is present, treat the water to remove/prevent algae. Do not allow sunlight to penetrate the cistern. • If mosquitoes are present, check screen for damage and replace them. If the situation is severe, treat with 'mosquito dunks' as necessary. • If an odor develops in the cistern due to stagnant water from non-use or pollen accumulation, drain the water and add 2 fluid ounces (1/4 cup) of bleach to the tank for every 1,000 gallons of storage. The water must be discharged into a vegetated receiving area, not onto a paved surface that flows into a storm drain. <p>For additional information, contact the Town at Chapel Hill Stormwater Management at 919-969-7246 (RAIN).</p>