

15A NCAC 02H .1057 MDC FOR RAINWATER HARVESTING

The purpose of this Rule is to set forth the design requirements for rainwater harvesting systems that are constructed to meet the requirements of this Section.

- (1) **MAJOR COMPONENTS OF A RAINWATER HARVESTING SYSTEM.** Rainwater harvesting systems shall include the following components:
 - (a) a collection system;
 - (b) a pre-treatment device to minimize gross and coarse solids collection in the tank;
 - (c) a cistern or other storage device;
 - (d) an overflow; and
 - (e) a distribution system.
- (2) **FATE OF CAPTURED WATER.** Captured stormwater shall be used or discharged as follows:
 - (a) use to meet a water demand. The usage, type, volume, frequency, and seasonality of water demand shall be established and justified;
 - (b) discharge through a passive drawdown device to a vegetated infiltration area or another SCM; or
 - (c) a combination of use and passive discharge.
- (3) **SIZING.** A rainwater harvesting system shall be considered as a primary SCM if the system is sized and water demand, passive discharge, or a combination of the two is provided for 85 percent of the total annual runoff volume as demonstrated through water balance calculations.
- (4) **WATER BALANCE CALCULATIONS.** The water balance shall be calculated using the NCSU Rainwater Harvester model, which is herein incorporated by reference, including subsequent amendments and editions, and may be accessed at no cost at <https://stormwater.bae.ncsu.edu/>, or another continuous-simulation hydrologic model that calculates the water balance on a daily or more frequent time-step using a minimum of five representative years of actual rainfall records. The model shall account for withdrawals from the cistern for use, active or passive drawdown, and additions to the cistern by rainfall, runoff, and a make-up water source if applicable.
- (5) **DISTRIBUTION SYSTEM.** The distribution system shall be tested for functionality prior to the completion of the rainwater harvesting system. The design shall include a protocol for testing the functionality of the distribution system upon completion of the initial system and upon additions to the existing system.
- (6) **SIGNAGE REQUIREMENTS.** All harvested rainwater outlets such as spigots and hose bibs, and appurtenances shall be labeled as "Non-Potable Water" to warn the public and others that the water is not intended for drinking. Passive drawdown devices, when employed, shall be marked with identifying signage or labels that are visible to owners and maintenance personnel.

History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);
Eff. January 1, 2017.