

### **15A NCAC 02H .1056 MDC FOR SAND FILTERS**

The purpose of this Rule is to set forth the design requirements sand filters that are constructed to meet the requirements of a State post-construction stormwater program.

- (1) SHWT SEPARATION. The minimum separation between the lowest point of the sand filter system and the SHWT shall be:
  - (a) two feet for open-bottom designs; and
  - (b) one foot for closed bottom designs. Exceptions to the one foot SHWT separation may be made if the applicant provides documentation that the design will neither float nor drain the water table.
- (2) TWO CHAMBER SYSTEM. The sand filter shall include a sediment chamber and a sand chamber. Storage volume in each chamber shall be equivalent.
- (3) SEDIMENT/SAND CHAMBER SIZING. The volume of water that can be stored in the sediment chamber and the sand chamber above the sand surface combined shall be 0.75 times the treatment volume. The elevation of bypass devices shall be set above the ponding depth associated with this volume. The bypass device may be designed to attenuate peak flows.
- (4) MAXIMUM PONDING DEPTH. The maximum ponding depth from the top of the sand to the bypass device shall be six feet.
- (5) FLOW DISTRIBUTION. Incoming stormwater shall be evenly distributed over the surface of the sand chamber.
- (6) SAND MEDIA SPECIFICATION. Sand media shall meet ASTM C33 or the equivalent.
- (7) MEDIA DEPTH. The filter bed shall have a minimum depth of 18 inches. The minimum depth of sand above the underdrain pipe shall be 12 inches.
- (8) MAINTENANCE OF MEDIA. The sand filter shall be maintained in a manner that results in a drawdown of at least two inches per hour at the sand surface.
- (9) CLEAN-OUT PIPES. At least one clean-out pipe shall be provided at the low point of each underdrain line. Clean out pipes shall be capped.

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