

15A NCAC 02H .1053 MDC FOR WET PONDS

The purpose of this Rule is to set forth the design requirements for wet ponds that are constructed to meet the requirements of this Section.

- (1) MAIN POOL SURFACE AREA AND VOLUME. The main pool of the wet pond shall be sized using either:
 - (a) the Hydraulic Retention Time (HRT) Method; or
 - (b) the SA/DA and Average Depth Method.
- (2) MAIN POOL DEPTH. The average depth of the main pool shall be three to eight feet below the permanent pool elevation. The applicant shall have the option of excluding the submerged portion of the vegetated shelf from the calculation of average depth.
- (3) SEDIMENT STORAGE. The forebay and main pool shall have a minimum sediment storage depth of six inches.
- (4) LOCATION OF INLET(S) AND OUTLET. The inlet(s) and outlet shall be located in a manner that avoids short circuiting.
- (5) FOREBAY. A forebay that meets the following specifications shall be included;
 - (a) Forebay volume shall be 15 to 20 percent of the volume in the main pool;
 - (b) The forebay entrance shall be deeper than the forebay exit;
 - (c) The water flowing over or through the structure that separates the forebay from the main pool shall flow at a nonerosive velocity; and
 - (d) If sediment accumulates in the forebay in a manner that reduces its depth to less than 75 percent of its design depth, then the forebay shall be cleaned out and returned to its design state.
- (6) VEGETATED SHELF. The main pool shall be equipped with a vegetative shelf around its perimeter. The minimum width of the vegetated shelf shall be six feet and the slope shall be no steeper than 6:1 (horizontal to vertical).
- (7) DRAWDOWN TIME. The design volume shall draw down to the permanent pool level between two and five days.
- (8) PROTECTION OF THE RECEIVING STREAM. The wet pond shall discharge the runoff from the one-year, 24-hour storm in a manner that minimizes hydrologic impacts to the receiving channel.
- (9) FOUNTAINS. If fountains are proposed, then documentation shall be provided that they will not cause a resuspension of sediment within the pond, or cause erosion on the side slopes of the pond.
- (10) TRASH RACK. A trash rack or other device shall be provided to prevent large debris from entering the outlet system.
- (11) VEGETATION. The following criteria apply to vegetation in and around the wet pond:
 - (a) The dam structure, including front and back embankment slopes, of the pond shall be vegetated with non-clumping turf grass; trees and woody shrubs shall not be allowed; and
 - (b) The vegetated shelf shall be planted with a minimum of three diverse species of herbaceous, native vegetation at a minimum density of 50 plants per 200 square feet of shelf area.

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