

15A NCAC 04B .0124 DESIGN STANDARDS IN SENSITIVE WATERSHEDS

(a) Uncovered areas in HQW zones shall be limited to a maximum total area of 20 acres within the boundaries of the tract. Only the land-disturbing activity within a HQW zone shall be governed by this Rule. Larger areas may be uncovered within the boundaries of the tract with the written approval of the Director upon providing engineering justification with a construction sequence that considers phasing, limiting exposure, weekly submitted self-inspection reports, and more conservative design than the 25-year storm. The Director may also stipulate the inclusion of other conditions in the plan as necessary based on specific site conditions.

(b) Erosion and sedimentation control measures, structures, and devices within HQW zones shall be planned, designed, and constructed to provide protection from the runoff of the 25-year storm that produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agriculture, Natural Resources Conservation Service's "National Engineering Field Handbook 630 for Conservation Practices." Other methodologies may be used if based on generally accepted engineering standards that are shown to the Division to be equivalent to or improved over the procedures in Handbook 630. The Division shall determine acceptability of an alternative methodology based upon a showing that the runoff model used was based on observed data in agreement with the predictive model.

(c) In order to provide for water quality protection in HQW zones, sediment basins that discharge to those areas shall be designed and constructed to meet the following criteria:

- (1) use a surface withdrawal mechanism, except when the basin drainage area is less than 1.0 acre;
- (2) have a minimum of 1800 cubic feet of storage area per acre of disturbed area;
- (3) have a minimum surface area of 325 square feet per cfs of Q25 peak inflow;
- (4) have a minimum dewatering time of 48 hours; and
- (5) incorporate 3 baffles, unless the basin is less than 20 feet in length, in which case 2 baffles shall be sufficient.

(d) Upon a written request of the applicant, the Director may allow alternative design or control measures in lieu of meeting the conditions required in Subparagraphs (c)(2) through (c)(5) of this Rule if the applicant demonstrates that meeting all of those conditions will result in design or operational hardships and that the alternative measures will provide an equal or more effective level of erosion and sedimentation control on the site. Alternative measures may include quicker application of ground cover, use of sediment flocculants, and use of enhanced ground cover practices.

(e) Newly constructed open channels in HQW zones shall be designed and constructed with side slopes no steeper than two horizontal to one vertical if a vegetative cover is used for stabilization, unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices, or other forms of ditch liners proven to the Division as being effective in restraining accelerated erosion. The angle for side slopes shall be sufficient to restrain accelerated erosion.

*History Note: Authority G.S. 113A-54(b); 113A-54(c)(1);
Eff. May 1, 1990;
Readopted Eff. April 1, 2020.*