

§§ 113A-215 through 113A-219. Reserved for future codification purposes.

Subpart E. Soil Erosion and Sedimentation Control

§200A-221. Purpose

This subpart is adopted for the purposes of: (1) regulating certain *land-disturbing activity* to control *accelerated erosion* and *sedimentation* in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property by *sedimentation*; (2) protecting economic and ecological integrity of the County; and (3) establishing procedures through which these purposes can be fulfilled.

§200A-222. Scope and Exclusions

- A. Geographical Scope of Regulated Land-Disturbing Activity. This subpart shall apply to *land-disturbing activity* within the unincorporated areas of Henderson County and its municipalities as allowed by agreement between *local governments*, other appropriate legal instrument or law.
- B. Exclusions from Regulated Land-Disturbing Activity. Notwithstanding the general applicability of this subpart to all *land-disturbing activity*, this subpart shall not apply to the following types of *land-disturbing activity*:
 - (1) An activity, including breeding and grazing of livestock, *undertaken* on agricultural land for the production of plants and animals useful to man, including, but not limited to:
 - a. forage and sod crops, grain and feed crops, tobacco, cotton, orchards and fruit crops, and peanuts.
 - b. dairy animals and dairy products.
 - c. poultry and poultry products.
 - d. livestock, including beef cattle, sheep swine, horses, ponies, mules, and goats.
 - e. bees and apiary products.
 - f. fur producing animals.
 - (2) An activity *undertaken* on forestland for the production and harvesting of timber and timber products and conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by *NC DENR*. If *land-disturbing activity undertaken* on forestland for the production and harvesting of timber and timber products is not conducted in accordance with Forest Practice Guidelines Related to Water Quality, the provisions of this subpart shall apply to such activity and any related *land-disturbing activity* on the *tract*.
 - (3) An activity for which a permit is required under the Mining Act of 1971, Article 7 of Chapter 74 of the *NCGS*.
 - (4) A *land-disturbing activity* over which the State has exclusive regulatory jurisdiction as provided in *NCGS* §113A-56(a).

- (5) An activity which is essential to protect human life during an emergency.
- C. Plan or Permit Approval Requirement for Land-Disturbing Activity. No *person* shall undertake any *land-disturbing activity* subject to this subpart without first obtaining an Erosion and Sedimentation Control Plan or Permit approval from the *Soil Erosion and Sedimentation Control Administrator*.
- (1) For the purpose of the subpart, an erosion control plan shall be required for:
- a. Any *land-disturbing activity* which uncovers one or more acres (43,560 square feet) of land.
 - b. Any *land-disturbing activity* which uncovers one-half (1/2) acre or more (21,780 square feet) of land with an *average slope* of 16 percent (7.2 degrees) to 25 percent (11.25 degrees) in its natural state. The *average slope* shall be calculated only for the disturbed area.
 - c. Any *land-disturbing activity* which uncovers one-quarter (1/4) acre or more (10,890 square feet) of land with an *average slope* over 25 percent (11.25 degrees) in its natural state. The *average slope* shall be calculated only for the disturbed area.
- (2) For purposes of this subpart an erosion control permit is required where no Erosion Control Plan is required and the land-disturbance activity disturbs more than 100 square feet. An Erosion Control Permit requires submittal of a *sketch plan* (see (a), below) and, upon issuance, that the permit is displayed in accordance with (b), below.
- a. Sketch Plan. No *person* shall initiate any *land-disturbing activity* exceeding 100 square feet without a *sketch plan* (not to scale). The *sketch plan* shall be submitted on eight and one-half (8.5) by 11 paper or larger; consist of property lines from Henderson County's GIS or a survey; include the property where land-disturbance will occur and adjacent parcels; indicate existing and proposed *buildings, roads, drives, trees* (existing and those to be removed); indicate all streams, drainage ditches or other bodies of water; indicate the proposed land disturbance area (including its dimensions); and indicate measures to be installed to control *erosion*.
 - b. Display of Permit Approval. A permit approval issued under this subpart shall be prominently displayed on the property until all *land-disturbing activity* is complete.
- D. Protection of Property. *Persons* conducting *land-disturbing activity* shall take all reasonable measures to protect all public and private property from damage caused by such activity.
- E. More Restrictive Rules Shall Apply. Whenever conflicts exist between federal, state, or local laws, ordinances, or rules, the more restrictive provision shall apply.
- F. Plan and Permit Approval Exceptions. Notwithstanding the general requirement to obtain an Erosion and Sedimentation Control Plan or Permit approval prior to undertaking *land-*

disturbing activity, an Erosion and Sedimentation Control Plan or Permit approval shall not be required for *land-disturbing activity* that does not exceed the provisions as specified in §200A-222 (Scope and Exclusions) C (Plan or Permit Approval Requirement for Land-Disturbing Activity). No Erosion and Sedimentation Control Plan or Permit approval is required if a building permit has been obtained prior to the effective date of this subpart (October 1, 2007) and Erosion and Sedimentation Control Plan approval was not required under State rules. In determining the area, lands under one or diverse ownership being developed as a unit will be aggregated.

§200A-223. Mandatory Standards for Land Disturbing Activity

No *land-disturbing activity* subject to the control of this subpart shall be *undertaken* except in accordance with the following mandatory standards:

A. Buffer Zone

- (1) Standard Buffer. No *land-disturbing activity* during periods of construction or improvement to land shall be permitted in proximity to a *lake or natural watercourse* unless a *buffer zone* is provided along the margin of the watercourse of sufficient width to confine visible *siltation* within the 25 percent of the *buffer zone* nearest the *land-disturbing activity*.
 - a. Projects On, Over or Under Water. This subsection shall not apply to a *land-disturbing activity* in connection with the construction of facilities to be located on, over, or under a *lake or natural watercourse*.
 - b. Buffer Measurement. Unless otherwise provided, the width of a *buffer zone* is measured horizontally from the edge of the *bankfull* elevation to the nearest edge of the disturbed area, with the 25 percent of the strip nearer the *land-disturbing activity* containing natural or artificial means of confining visible *siltation*.
- (2) Trout Buffer. Waters that have been classified as trout waters by the Environmental Management Commission shall have an undisturbed *buffer zone* 25 feet wide or of sufficient width to confine visible *siltation* within the 25 percent of the *buffer zone* nearest the *land-disturbing activity*, whichever is greater. Provided, however, that the North Carolina Sedimentation Control Commission may approve plans which include *land-disturbing activity* along trout waters when the duration of said disturbance would be temporary and the extent of said disturbance would be minimal.
 - a. Projects On, Over or Under Water. This subsection shall not apply to a *land-disturbing activity* in connection with the construction of facilities to be located on, over, or under a *lake or natural watercourse*.
 - b. Trout Buffer Measurement. The 25 foot minimum width for an undisturbed *buffer zone* adjacent to designated trout waters shall be measured horizontally from the top of the bank to the nearest edge of the disturbed area.
 - c. Limit on Land Disturbance. Where a temporary and minimal disturbance has been permitted as an exception to the trout buffer, *land-disturbing*

activities in the *buffer zone* adjacent to designated trout waters shall be limited to a maximum of ten (10) percent of the total length of the *buffer zone* within the *tract* to be disturbed such that there is not more than 100 linear feet of disturbance in each 1000 linear feet of *buffer zone*. Larger areas may be disturbed with the written approval of the Director of the Division of Land Resources of *NCDENR*.

- d. Limit on Temperature Fluctuations. No *land-disturbing activity* shall be *undertaken* within a *buffer zone* adjacent to designated trout waters that will cause adverse temperature fluctuations in the trout waters, as set forth in 15 *NCAC* 2B.0211 "Fresh Surface Water Classification and Standards."
- B. Graded Slopes and Fills. The angle for graded slopes and fills shall be no greater than the angle that can be retained by vegetative cover or other adequate *erosion* control devices or *structures*. In any event, slopes left exposed will, within 21 calendar days of completion of any *phase of grading*, be planted or otherwise provided with temporary or permanent *ground cover*, devices, or *structures* sufficient to restrain *erosion*. The angle for graded slopes and fills must be demonstrated to be stable. Stable is the condition where the soil remains in its original configuration, with or without mechanical constraints.
- C. Fill Material. Unless a permit from *NCDENR's* Division of Waste Management to operate a *landfill* is on file for the official site, acceptable fill material shall be free of organic or other degradable materials, masonry, concrete and brick in sizes exceeding 12 inches, and any materials which would cause the site to be regulated as a *landfill* by the State of North Carolina.
- D. Ground Cover. Whenever *land-disturbing activity* is *undertaken* on a *tract*, the *person* conducting the *land-disturbing activity* shall install *erosion* and *sedimentation* control devices and practices that are sufficient to retain the *sediment* generated by the *land-disturbing activity* within the boundaries of the *tract* during construction upon and development of said *tract*, and shall plant or otherwise provide a permanent *ground cover* sufficient to restrain *erosion* after *completion of construction or development*. Except as provided in §200A-226 (Design and Performance Standards) B(5) of this subpart, provisions for a *ground cover* sufficient to restrain *erosion* must be accomplished within 21 calendar days following *completion of construction or development*.
- E. Prior Plan Approval. No *person* shall initiate any *land-disturbing activity* on a *tract* unless, 30 or more days prior to initiating the activity, an Erosion and Sedimentation Control Plan for the activity is filed with and approved by the *Soil Erosion and Sedimentation Control Administrator*. An Erosion and Sedimentation Control Plan may be filed less than 30 days prior to initiation of a *land-disturbing activity* if the plan is submitted under an approved express permit program, and the *land-disturbing activity* may be initiated and conducted in accordance with the plan once the plan has been approved. The County shall forward to the Director of the Division of Water Quality a copy of each Erosion and Sedimentation Control Plan for a *land-disturbing activity* that involves the utilization of ditches for the purpose of de-watering or lowering the water table of the *tract*. Submittal of a *sketch plan* is required one (1) day prior to initiating any *land-disturbing activity*.

§200A-224. Erosion and Sedimentation Control Plans

- A. Pre-Submittal Conference. A pre-submittal conference can be requested by a *person* or an agent of that party conducting *land-disturbing activity*. At the pre-submittal, the *Soil Erosion and Sedimentation Control Administrator* shall inform the *applicant* of the processes involved with Erosion and Sedimentation Control Plan review and approval, issuance of an Erosion and Sedimentation Control Plan Certificate and Letter of Approval, and the relationship of said Erosion and Sedimentation Control Plan and Letter of Approval with zoning, building code, and other land-use regulations in effect in Henderson County. At the time of application submission, the *Soil Erosion and Sedimentation Control Administrator* also shall notify the *applicant* of the *appeal* process as provided in the subpart.
- B. Plan Submission. An Erosion and Sedimentation Control Plan shall be prepared for all *land-disturbing activities* subject to this subpart. An Erosion and Sedimentation Control Plan shall be prepared by a *design professional*. Three (3) copies of the Erosion and Sedimentation Control Plan shall be filed with the *Soil Erosion and Sedimentation Control Administrator* at least 30 days prior to the commencement of the proposed activity.
- C. Financial Responsibility and Ownership. Erosion and Sedimentation Control Plans may be disapproved when not accompanied by an authorized statement of financial responsibility and ownership. This statement shall be signed by the *person* financially responsible for the *land-disturbing activity* or his attorney in fact. The statement shall include the mailing and street addresses of the principal place of business of (1) the *person* financially responsible, (2) the owner of the land, and (3) any registered agents. If the *person* financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving notice of compliance or non-compliance with the Erosion and Sedimentation Control Plan, the North Carolina Sedimentation Pollution Control Act of 1973, this subpart, or rules or orders adopted or issued pursuant to this subpart. If the *applicant* is not the owner of the land to be disturbed, the draft Erosion and Sedimentation Control Plan must include the owner's written consent for the *applicant* to submit a draft Erosion and Sedimentation Control Plan and to conduct the anticipated *land-disturbing activity*.
- D. Environmental Policy Act Document. Any Erosion and Sedimentation Control Plan submitted for a *land-disturbing activity* for which an environmental document is required by the North Carolina Environment Policy Act (*NCGS* §113A-1, et seq.) shall be deemed incomplete until a complete environmental document is available for review. The *Soil Erosion and Sedimentation Control Administrator* shall promptly notify the *person* submitting the Erosion and Sedimentation Control Plan that the 30 day time limit for review of the Erosion and Sedimentation Control Plan pursuant to this subpart shall not begin until a complete environmental document is available for review.
- E. Content. The Erosion and Sedimentation Control Plan required by this section shall contain architectural and engineering drawings, maps, assumptions, calculations, and narrative statements as needed to adequately describe the proposed development of the *tract* and the measures planned to comply with the requirements of this subpart. Erosion and Sedimentation Control Plan content may vary to meet the needs of specific site

requirements. Detailed guidelines for Erosion and Sedimentation Control Plan preparation may be obtained from the *Soil Erosion and Sedimentation Control Administrator* on request.

- F. Design Manual. Appropriate *erosion* and *sedimentation* practices and measures shall be in accordance to the *Design Manual* developed by the State or any Erosion and Sedimentation Control Design Manual adopted by Henderson County or any supplemental materials.
- G. Soil and Water Conservation District Comments. The Henderson County Soil and Water Conservation District, created pursuant to *NCGS* Chapter 139, and hereafter “the District” shall review the Erosion and Sedimentation Control Plan and submit any comments and recommendations to the *Soil Erosion and Sedimentation Control Administrator* within 20 days after the District received the Erosion and Sedimentation Control Plan or within any shorter period of time as may be agreed upon by the District and Henderson County. Failure of the District to submit its comments and recommendations within 20 days or within any agreed-upon shorter period of time shall not delay final action on the Erosion and Sedimentation Control Plan.
- H. Timeline for Decisions on Plans. The *Soil Erosion and Sedimentation Control Administrator*, will review each complete Erosion and Sedimentation Control Plan submitted to them and within 30 days of receipt thereof will notify the *person* submitting the Erosion and Sedimentation Control Plan that it has been approved, approved with modifications, approved with performance reservations, or disapproved. Failure to approve, approve with modifications, or disapprove a complete Erosion and Sedimentation Control Plan within 30 days of receipt shall be deemed approval. The *Soil Erosion and Sedimentation Control Administrator* will review each revised Erosion and Sedimentation Control Plan submitted to them and within 15 days of receipt thereof will notify the *person* submitting the Erosion and Sedimentation Control Plan that it has been approved, approved with modifications, approved with performance reservations, or disapproved. Failure to approve, approve with modifications, or disapprove a revised Erosion and Sedimentation Control Plan within 15 days of receipt shall be deemed approval.
- I. Approval. The *Soil Erosion and Sedimentation Control Administrator* shall only approve an Erosion and Sedimentation Control Plan upon determining that it complies with all applicable State and local regulations for *erosion* and *sedimentation* control. Approval assumes the *applicant’s* compliance with the federal and state water quality laws, regulations and rules. The *Soil Erosion and Sedimentation Control Administrator* shall condition approval of Erosion and Sedimentation Control Plans upon the *applicant’s* compliance with federal and state water quality laws, regulations and rules. The *Soil Erosion and Sedimentation Control Administrator* may establish an expiration date, not to exceed three (3) years, for Erosion and Sedimentation Control Plans approved under this subpart.
- J. Disapproval for Content. The *Soil Erosion and Sedimentation Control Administrator* may disapprove an Erosion and Sedimentation Control Plan or draft Erosion and Sedimentation Control Plan based on its content. A disapproval based upon an Erosion

and Sedimentation Control Plan's content must specifically state in writing the reasons for disapproval.

- K. Other Disapprovals. The *Soil Erosion and Sedimentation Control Administrator* may disapprove an Erosion and Sedimentation Control Plan or draft Erosion and Sedimentation Control Plans if implementation of the Erosion and Sedimentation Control Plan would result in a *violation* of the rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters. A *local government* may disapprove an Erosion and Sedimentation Control Plan upon finding that an *applicant*, or a *parent, subsidiary, or other affiliate* of the *applicant*:
- (1) Is conducting or has conducted *land-disturbing activity* without an approved Erosion and Sedimentation Control Plan, or has received notice of *violation* of an Erosion and Sedimentation Control Plan previously approved by the North Carolina Sedimentation Control Commission or a *local government* pursuant to the North Carolina Sedimentation Pollution Control Act of 1973 and has not complied with the notice within the time specified in the notice;
 - (2) Has failed to pay a civil penalty assessed pursuant to the North Carolina Sedimentation Pollution Control Act of 1973 or a local ordinance adopted pursuant to the North Carolina Sedimentation Pollution Control Act of 1973 by the time the payment is due;
 - (3) Has been convicted of a misdemeanor pursuant to *NCG S §113A-64(b)* or any criminal provision of a local ordinance adopted pursuant to the North Carolina Sedimentation Pollution Control Act of 1973; or
 - (4) Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the North Carolina Sedimentation Pollution Control Act of 1973.

For purposes of this subsection, an *applicant's* record may be considered for only the two (2) years prior to the application date.

In the event that an Erosion and Sedimentation Control Plan is disapproved pursuant to this subsection, the *Soil Erosion and Sedimentation Control Administrator* shall notify the Director of the Division of Land Resources of *NC DENR* of such disapproval within ten (10) days. The *Soil Erosion and Sedimentation Control Administrator* shall advise the *applicant* and the Director of the Division of Land Resources of *NC DENR* in writing as to the specific reasons that the Erosion and Sedimentation Control Plan was disapproved.

- L. Notice of Activity Initiation. No *person* may initiate a *land-disturbing activity* before notifying the agency that issued the Erosion and Sedimentation Control Plan approval of the date that *land-disturbing activity* will begin.
- M. Preconstruction Conference. When deemed necessary by the approving authority a preconstruction conference may be required.
- N. Display of Plan Approval. An Erosion and Sedimentation Control Plan approval issued under this subpart shall be prominently displayed until all construction is complete, all permanent *sedimentation* and *erosion* control measures are installed and the site has been stabilized. A copy of the approved plan shall be kept on file at the job site.

- O. Required Revisions. After approving an Erosion and Sedimentation Control Plan, if the *Soil Erosion and Sedimentation Control Administrator* either upon review of such Erosion and Sedimentation Control Plan or on inspection of the job site, determines that a significant risk of *accelerated erosion* or off-site *sedimentation* exists, the *Soil Erosion and Sedimentation Control Administrator* shall require a revised Erosion and Sedimentation Control Plan. Pending the preparation of the revised Erosion and Sedimentation Control Plan, work shall cease or shall continue under conditions outlined by the appropriate authority. If following commencement of a *land-disturbing activity* pursuant to an approved Erosion and Sedimentation Control Plan, the *Soil Erosion and Sedimentation Control Administrator* determines that the Erosion and Sedimentation Control Plan is inadequate to meet the requirements of this subpart, the *Soil Erosion and Sedimentation Control Administrator* may require any revision of the Erosion and Sedimentation Control Plan that is necessary to comply with this subpart.
- P. Amendment to a Plan. Applications for amendment of an Erosion and Sedimentation Control Plan in written and/or graphic form may be made at any time under the same conditions as the original application. Until such time as said amendment is approved by the *Soil Erosion and Sedimentation Control Administrator* the *land-disturbing activity* shall not proceed except in accordance with the Erosion and Sedimentation Control Plan as originally approved.
- Q. Failure to File a Plan. Any *person* engaged in *land-disturbing activity* who fails to file an Erosion and Sedimentation Control Plan in accordance with this subpart, or who conducts a *land-disturbing activity* except in accordance with provisions of an approved Erosion and Sedimentation Control Plan shall be deemed in *violation* of this Chapter.

§200A-225. Basic Control Objectives

An *erosion and sedimentation control Erosion and Sedimentation Control Plan* may be disapproved if the Erosion and Sedimentation Control Plan fails to address the following control objectives:

- A. Identify Critical Areas. On-site areas which are subject to severe *erosion*, and off-site areas which are especially vulnerable to damage from *erosion* and/or *sedimentation*, are to be identified and receive special attention.
- B. Limit Time of Exposure. All *land-disturbing activities* are to be planned and conducted to limit exposure to the shortest feasible time.
- C. Limit Exposed Areas. All *land-disturbing activity* is to be planned and conducted to minimize the size of the area to be exposed at any one (1) time.
- D. Control Surface Water. Surface water runoff originating upgrade of exposed areas should be controlled to reduce *erosion* and *sediment* loss during the period of exposure.
- E. Control Sedimentation. All *land-disturbing activity* is to be planned and conducted so as to prevent off-site *sedimentation* damage.
- F. Manage Stormwater Runoff. When the increase in the *velocity* of *stormwater runoff* resulting from a *land-disturbing activity* is sufficient to cause *accelerated erosion* of the receiving watercourse, an Erosion and Sedimentation Control Plan is to include measures

to control the *velocity* to the point of discharge so as to minimize *accelerated erosion* of the site and increased *sedimentation* of the stream.

§200A-226. Design and Performance Standards

- A. Except as provided in §200A-226 (Design and Performance Standards) B(2) of this subpart, *erosion* and *sedimentation* control measures, *structures*, and devices shall be planned, designed, and constructed to provide protection from the calculated maximum peak rate of runoff from the ten (10) year storm. Runoff rates shall be calculated using the procedures in the USDA, Soil Conservation Service's "National Engineering Field Manual for Conservation Practices", or other acceptable calculation procedures.
- B. *HQW Zones*. In *High Quality Water (HQW) zones* the following design standards shall apply:
- (1) *Limit on Uncovered Area*. *Uncovered* areas in *HQW zones* shall be limited at any time to a maximum total area of 20 acres within the boundaries of the *tract*. Only the portion of the *land-disturbing activity* within a *HQW zone* shall be governed by this section. Larger areas may be *uncovered* within the boundaries of the *tract* with the written approval of the Director of the Division of Land Resources of *NC DENR*.
 - (2) *Maximum Peak Rate of Runoff Protection*. *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* which produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agriculture Soil Conservation Service's "National Engineering Field Manual for Conservation Practices" or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
 - (3) *Settling Efficiency*. *Sediment* basins within *HQW zones* shall be designed and constructed such that the basin will have a settling efficiency of at least 70 percent for the 40 micron (0.04 millimeter) size soil particle transported into the basin by the runoff of that two (2) year storm which produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agriculture Soil Conservation Service's "National Engineering Field Manual for Conservation Practices" or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
 - (4) *Grade*. Newly constructed open channels in *HQW zones* shall be designed and constructed with side slopes no steeper than two (2) horizontal to one (1) 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 acceptable ditch liners. In any event, the angle for side slopes shall be sufficient to restrain *accelerated erosion*.
 - (5) *Ground Cover*. *Ground cover* sufficient to restrain *erosion* must be provided for any portion of a *land-disturbing activity* in a *HQW zone* within 15 *working days*

or 60 calendar days following *completion of construction or development*, whichever period is shorter.

§200A-227. Stormwater Outlet Protection

- A. Intent. Stream banks and channels downstream from any *land-disturbing activity* shall be protected from increased degradation by *accelerated erosion* caused by increased *velocity* of runoff from the *land-disturbing activity*.
- B. Performance Standard. *Persons* shall conduct *land-disturbing activity* so that the post construction *velocity* of the ten (10) year storm runoff in the receiving watercourse to the *discharge point* does not exceed the greater of:
 - (1) the *velocity* established by the Maximum Permissible Velocities Table set out within this subsection; or
 - (2) the *velocity* of the *ten-year storm* runoff in the receiving watercourse prior to development.

If condition (1) or (2) of this Paragraph cannot be met, then the receiving watercourse to and including the *discharge point* shall be designed and constructed to withstand the expected *velocity* anywhere the *velocity* exceeds the “prior to development” *velocity* by 10 percent.

Table 8.1. Maximum Permissible Velocities		
Material	Feet Per Second (F.P.S.)	Meters Per Second (M.P.S.)
Fine sand (noncolloidal)	2.5	0.8
Sandy loam (noncolloidal)	2.5	0.8
Silt loam (noncolloidal)	3.0	0.9
Ordinary firm loam	3.5	1.1
Fine gravel	5.0	1.5
Stiff clay (very colloidal)	5.0	1.5
Graded, loam to cobbles (noncolloidal)	5.0	1.5
Graded, silt to cobbles (colloidal)	5.5	1.7
Alluvial silts (noncolloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (noncolloidal)	6.0	1.8
Cobbles and shingles	5.5	1.7
Shales and hard pans	6.0	1.8

Source - Adapted from recommendations by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply allowable *velocity* by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

- C. Acceptable Management Measures. Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences. The *Soil Erosion and Sedimentation Control Administrator* recognizes that the management of *stormwater runoff* to minimize or control downstream channel and

bank *erosion* is a developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives, while not exhaustive, are to:

- (1) Avoid increases in surface runoff volume and *velocity* by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;
- (2) Avoid increases in *stormwater* discharge velocities by using vegetated or roughened swales and waterways in place of closed drains and high *velocity* paved sections;
- (3) Provide *energy dissipators* at outlets of *storm drainage facilities* to reduce flow velocities to the point of discharge;
- (4) Protect watercourses subject to *accelerated erosion* by improving cross sections and/or providing *erosion*-resistant lining; and
- (5) Upgrade or replace the receiving device *structure* or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased *velocity*.

D. Exceptions. This rule shall not apply where it can be demonstrated to the *Soil Erosion and Sedimentation Control Administrator* that stormwater discharge velocities will not create an *erosion* problem in the receiving watercourse.

§200A-228. Borrow and Waste Areas

When the *person* conducting the *land-disturbing activity* is also the *person* conducting the *borrow* or *waste* disposal activity, areas from which *borrow* is obtained and which are not regulated by the provisions of the Mining Act of 1971, and *waste* areas for surplus materials other than *landfills* regulated by *NCDENR's* Division of Waste Management shall be considered as part of the *land-disturbing activity* where the *borrow* material is being used or from which the *waste* material originated. When the *person* conducting the *land-disturbing activity* is not the *person* obtaining the *borrow* and/or disposing of the *waste*, these areas shall be considered a separate *land-disturbing activity*.

§200A-229. Access and Haul Roads

Temporary access and haul *roads*, other than *public roads*, constructed or used in connection with any *land-disturbing activity* shall be considered a part of such activity. Whenever an access or haul *road* adjoins a dedicated public or private *road*, sufficient depth, width, and type of stone, properly compacted, shall be installed as a mud matt to prevent the accumulation of soil and mud on existing *roads*.

§200A-230. Operations in Lakes or Natural Watercourses

Land-disturbing activity in connection with construction in, on, over, or under a *lake* or *natural watercourse* shall minimize the extent and duration of disruption of the stream channel. Where relocation of a stream forms an essential part of the proposed activity, the relocation shall minimize unnecessary changes in the stream flow characteristics.

§200A-231. Responsibility for Maintenance

During the development of a site, the *person* conducting the *land-disturbing activity* shall install and maintain all temporary and permanent *erosion* and *sedimentation* control measures as required by the approved plan or any provision of this subpart, the North Carolina Sedimentation Pollution Control Act of 1973, or any order adopted pursuant to this subpart or the North Carolina Sedimentation Pollution Control Act of 1973. After site development, the landowner or *person* in possession or control of the land shall install and/or maintain all necessary permanent *erosion* and *sediment* control measures, except those measures installed within a *road right-of-way* or *easement* accepted for maintenance by a governmental agency.

§200A-232. Additional Measures

Whenever the *Soil Erosion and Sedimentation Control Administrator* determines that significant *erosion* and *sedimentation* is occurring as a result of *land-disturbing activity*, despite application and maintenance of protective practices, the *person* conducting the *land-disturbing activity* will be required to and shall take additional protective action.

§200A-233. Existing Uncovered Areas

- A. All *uncovered* areas existing on the effective date of this subpart which resulted from *land-disturbing activity*, exceed one (1) acre, are subject to continued *accelerated erosion*, and are causing off-site damage from *sedimentation*, shall be provided with a *ground cover* or other protective measures, *structures*, or devices sufficient to restrain *accelerated erosion* and control off-site *sedimentation*.
- B. The *Soil Erosion and Sedimentation Control Administrator* shall serve upon the landowner or other *person* in possession or control of the land a written notice to comply with the North Carolina Sedimentation Pollution Control Act of 1973, this subpart, a rule or order adopted or issued pursuant to the North Carolina Sedimentation Pollution Control Act of 1973 by the North Carolina Sedimentation Control Commission or by the *Soil Erosion and Sedimentation Control Administrator*. The notice to comply shall be sent by registered or certified mail, return receipt requested, or other means provided in GS 1A-1, Rule 4. The notice will set forth the measures needed to comply and will state the time within which such measures must be completed. In determining the measures required and the time allowed for compliance, the authority serving notice shall take into consideration the economic feasibility, technology, and quantity of work required, and shall set reasonable and attainable time limits of compliance.
- C. The *Soil Erosion and Sedimentation Control Administrator* reserves the right to require preparation and approval of an Erosion and Sedimentation Control Plan in any instance where extensive control measures are required.
- D. This rule shall not require *ground cover* on cleared land forming the future basin of a planned reservoir.

§200A-234. Fees

- A. Henderson County may establish a fee schedule for the review and approval of Erosion and Sedimentation Control Plans or Permits.

- B. In establishing the fee schedule, the County shall consider the administrative and personnel costs incurred for reviewing the Erosion and Sedimentation Control Plans or Permits and for related compliance activities.

§200A-235. Plan and Permit Appeals

- A. Except as provided in §200A-235 (Plan and Permit Appeals) B of this subpart, the *appeal* of a disapproval or approval with modifications of an Erosion and Sedimentation Control Plan or Permit shall be governed by the following provisions:
 - (1) The disapproval or modification of any proposed Erosion and Sedimentation Control Plan or Permit by the *Soil Erosion and Sedimentation Control Administrator* shall entitle the *person* submitting the Erosion and Sedimentation Control Plan or Permit to a public hearing if such *person* submits written demand for a hearing within 15 days after receipt of written notice of disapproval or modifications.
 - (2) A hearing held pursuant to this section shall be conducted by the Henderson County Zoning Board of Adjustment (*ZBA*) within 30 days after the date of the *appeal* or request for a hearing.
 - (3) The *ZBA* will render its final decision on any *appeal* within 45 days of the completion of the hearing.
 - (4) If the *ZBA* upholds the disapproval or modification of a proposed Erosion and Sedimentation Control Plan or Permit following the hearing, the *person* submitting the Erosion and Sedimentation Control Plan or Permit shall then be entitled to *appeal* the County's decision to the Competent Court of Jurisdiction.
- B. In the event that an Erosion and Sedimentation Control Plan or Permit is disapproved pursuant to §200A-224 (Erosion and Sedimentation Control Plan) J of this subpart, the *applicant* may *appeal* the *Board of Adjustment's* disapproval of the Erosion and Sedimentation Control Plan directly to the North Carolina Sediment Control Commission.

§200A-236. Inspections and Investigations

- A. Inspection. Agents, officials, or other qualified *persons* authorized by the *Soil Erosion and Sedimentation Control Administrator* will periodically inspect *land-disturbing activities* to ensure compliance with the North Carolina Sedimentation Pollution Control Act of 1973, this subpart, or rules or orders adopted or issued pursuant to this subpart, and to determine whether the measures required in the Erosion and Sedimentation Control Plan or Permit are effective in controlling *erosion* and *sedimentation* resulting from *land-disturbing activity*. Notice of the right to inspect shall be included in the certificate of approval of each Erosion and Sedimentation Control Plan.
- B. Willful Resistance, Delay or Obstruction. No *person* shall willfully resist, delay, or obstruct an authorized representative, employee, or agent of the County, while that *person* is inspecting or attempting to inspect a *land-disturbing activity* under this section.
- C. Notice of Violation. If the *Soil Erosion and Sedimentation Control Administrator* determines that a *person* engaged in *land-disturbing activity* has failed to comply with the North Carolina Sedimentation Pollution Control Act of 1973, this subpart, or rules, or

orders adopted or issued pursuant to this subpart, a notice of *violation* shall be served upon that *person*. The notice may be served by any means authorized under *NCGS* 1A-1, Rule 4 upon the *person* conducting the *land-disturbing activity* and, if different from that party, the property owner. The notice shall specify a date, by which the *person* must comply with the North Carolina Sedimentation Pollution Control Act of 1973, or this subpart, or rules, or orders adopted pursuant to this subpart, and inform the *person* of the actions that need to be taken to comply with the North Carolina Sedimentation Pollution Control Act of 1973, this subpart, or rules or orders adopted pursuant to this subpart. Any *person* who fails to comply within the time specified is subject to additional civil and criminal penalties for a continuing *violation* as provided in *NCGS* §113A-64 and this subpart.

D. Revocation of Permits. The notice shall set forth the actions necessary to achieve compliance with the plan or this section, specify a reasonable time period within which such measures must be completed, and warn that failure to correct the *violation* within the time period will result in one or more of the following:

- (1) Revocation of the land-disturbing permit, all building permits, and any other permits issued by the County;
- (2) The issuance of a stop work order;
- (3) The assessment of civil penalties; or
- (4) Other enforcement action.

If work has not begun within six (6) months following the issuance date, the land-disturbing permit shall be deemed expired. Renewal of the land-disturbing permit will require submittal of a new application and associated plan review fees. No grading work is to be performed until the new permit is issued.

E. Investigation. The *Soil Erosion and Sedimentation Control Administrator* shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this subpart, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any *land-disturbing activity*.

F. Statements and Reports. The *Soil Erosion and Sedimentation Control Administrator* shall also have the power to require written statements, or filing of reports under oath, with respect to pertinent questions relating to *land-disturbing activity*.

§200A-237. Penalties

A. Civil Penalties

- (1) Civil Penalty for a Violation. Any *person* who violates any of the provisions of this subpart, or rule or order adopted or issued pursuant to this subpart, or who initiates or continues a *land-disturbing activity* for which an Erosion and Sedimentation Control Plan or Permit is required except in accordance with the terms, conditions, and provisions of an approved Erosion and Sedimentation Control Plan or Permit, is subject to a civil penalty. The maximum civil penalty amount that the *Soil Erosion and Sedimentation Control Administrator* may assess per *violation* is 5,000 dollars. A civil penalty may be assessed from the date

of the *violation*. Each day of a continuing *violation* shall constitute a separate *violation*.

- (2) Civil Penalty Assessment Factors. The *Soil Erosion and Sedimentation Control Administrator* shall determine the amount of the civil penalty based upon the following factors:
 - a. the degree and extent of harm caused by the *violation*,
 - b. the cost of rectifying the damage,
 - c. the amount of money the violator saved by noncompliance,
 - d. whether the *violation* was committed willfully, and
 - e. the prior record of the violator in complying or failing to comply with this subpart.
 - (3) Notice of Civil Penalty Assessment. The *Henderson County Board of Adjustment* shall provide notice of the civil penalty amount and basis for assessment to the *person* assessed. The notice of assessment shall be served by any means authorized under *NCGS 1A-1, Rule 4*, and shall direct the violator to either pay the assessment or contest the assessment, within 30 days after receipt of the notice of assessment, by written demand for a hearing.
 - (4) Hearing. A hearing on a civil penalty shall be conducted by the *ZBA* within 30 days after the date of the written demand for the hearing.
 - (5) Final Decision. The *Board of Adjustment* shall render its final decision on the civil penalty within 45 days of the receipt of the *appeal*.
 - (6) Appeal of Final Decision. Appeal from the final decision of the *Board of Adjustment* shall be to the Competent Court of Jurisdiction.
 - (7) Collection. If payment is not received within 30 days after it is due, Henderson County may institute a civil action to recover the amount of the assessment. The civil action may be brought in the Superior Court of the county where the *violation* occurred, or the violator's residence or where the violator's principal place of business is located. Such civil actions must be filed within three (3) years of the date the assessment was due. An assessment that is not contested is due when the violator is served with a notice of assessment. An assessment that is contested is due at the conclusion of the administrative and judicial review of the assessment.
 - (8) Credit of Civil Penalties. Civil penalties collected pursuant to this subpart shall be credited to the Civil Penalty and Forfeiture Fund.
- B. Criminal Penalties. Any *person* who knowingly or willfully violates any provision of this subpart, or rule or order adopted or issued pursuant to this subpart, or who knowingly or willfully initiates or continues a *land-disturbing activity* for which an Erosion and Sedimentation Control Plan is required except in accordance with the terms, conditions, and provisions of an approved Erosion and Sedimentation Control Plan, shall be guilty of a Class 2 misdemeanor which may included a fine not to exceed 5,000 dollars as provided in *NCGS §113A-64*.

§200A-238. Injunctive Relief

- A. Violation of Local Program. Whenever Henderson County has reasonable cause to believe that any *person* is violating or threatening to violate any subpart, rule, regulation or order adopted or issued by Henderson County, or any term, condition, or provision of an approved Erosion and Sedimentation Control Plan, it may, either before or after the institution of any other action or proceeding authorized by this subpart, institute a civil action in the name of the County, for injunctive relief to restrain the *violation* or threatened *violation*. The action shall be brought in the superior court of the county in which the *violation* is occurring or is threatened.
- B. Abatement of Violation. Upon determination by a court that an alleged *violation* is occurring or is threatened, the court shall enter any order or judgment that is necessary to abate the *violation*, to ensure that restoration is performed, or to prevent the threatened *violation*. The institution of an action for injunctive relief under this section shall not relieve any party to the proceedings from any civil or criminal penalty prescribed for *violations* of this subpart.

§200A-239. Restoration After Non-Compliance

The *Soil Erosion and Sedimentation Control Administrator* may require a *person* who engaged in a *land-disturbing activity* and failed to retain *sediment* generated by the activity, as required by NCGS §113A-57 (3), to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by *sedimentation*. This authority is in addition to any other civil or criminal penalty or injunctive relief authorized under this subpart.

§200A-240. Severability

If any section or sections of this subpart is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.

§200A-241. Effective Date

This subpart becomes effective on October 1, 2007.

§200A-242. Reserved

§200A-243. Reserved

§200A-244. Reserved

§200A-245. Reserved

§200A-246. Reserved

§200A-247. Reserved

§200A-248. Reserved

§200A-249. Reserved

§200A-250. Reserved

§200A-251. Reserved

§200A-252. Reserved

§200A-253. Reserved

§200A-254. Reserved
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§200A-258. Reserved
§200A-259. Reserved
§200A-260. Reserved
§200A-261. Reserved

