

# **REQUEST FOR BOARD ACTION**

## **HENDERSON COUNTY BOARD OF COMMISSIONERS**

**Meeting Date:** November 6, 2006

**Subject:** Consideration of draft Soil Erosion and Sedimentation Control Ordinance

**Attachments:** Attachment 1 – Summary Memorandum  
Attachment 2 – Draft Ordinance

### **SUMMARY OF REQUEST:**

Attached is the draft Soil Erosion and Sedimentation Control Ordinance. It reflects the changes required by the Board at the last meeting regarding this issue. The draft ordinance requires a sketch plan (Section 200-104 C (2)), controls for the 10-year storm (Section 200-108 A), and other minor changes the Board desired. Please note the effective date indicated is April 1, 2007 to allow adequate time to start the program. Without further changes, the Board could adopt the draft ordinance if desired.

### **COUNTY MANAGER'S RECOMMENDATION / BOARD ACTION REQUESTED:**

I recommend that the Board of Commissioners consider adoption of the draft ordinance.

**MEMORANDUM**

**TO: Henderson County Board of Commissioners**

**FROM: Anthony Starr, Planning Director**

**DATE: November 6, 2006**

**SUBJECT: Summary - Soil Erosion and Sedimentation Control Ordinance**

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**Background**

Attached is the draft Soil Erosion and Sedimentation Control Ordinance. This draft reflects the changes requested by the Board of Commissioners at the last meeting regarding this issue. Staff considered the direction given by the Board as well as public comments. Many of the public concerns were already addressed or have now been addressed with the draft ordinance.

**Review**

**10-Year Storm vs. 25-Year Storm**

At the last meeting the Board considered the issue of whether to require projects control for the 10-year storm or the 25-year storm. The Board directed staff to prepare the ordinance using the 10-year storm standard. With this standard, any land disturbing activity must include measures to control runoff for the 10-year storm. This represents the current standard required by the state rules. Requiring measures to control for the 25-year storm could prevent system failures but could also cause increased development costs. In some cases, it could cause the disturbance of additional land that otherwise remain undisturbed.

**Plans, Permits and Slope**

State rules require a formal erosion control plan for disturbance or more than 1 acre. The draft ordinance requires such a plan when (see section 200-104 C. 1):

- Any land disturbing activity which uncovers 1 or more acres (43,560 square feet) of land;
- 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 to 25 percent in its natural state. The average slope shall be calculated only for the disturbed area; or
- 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 in its natural state. The average slope shall be calculated only for the disturbed area.

The Board also desired a provision that required a sketch plan for land disturbing activity that did not meet the thresholds requiring a formal plan. The draft ordinance requires a permit (sketch plan) for any activity that disturbs more than 100 square feet when a formal plan is not required (see section 200-104 C. 2). The sketch plan requires minimal information including: areas of disturbed lands, streams, buildings, etc. It is not required that these sketch plans be drawn to scale.

The Board and citizens also requested a clarification as to how slope was calculated. The measurement of slope will only include the area disturbed (see bullet comments above and section 200-104 C. 1). The previous draft allowed the calculation to include the entire property. The definition section also includes a

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statement regarding the slope calculation and an illustration (see page 4 of attachment 2 – average slope definition).

#### Penalties

The Board discussed the appropriate penalties and enforcement actions for someone who violates this ordinance. The draft ordinance includes provisions for fines up to \$5,000 per day, suspension of other county permits, and civil action in court. The only change from the original draft was the addition of language allowing the suspension or revocation of other county permits (see section 200-118 D).

#### Effective Date of the Ordinance

The draft ordinance includes an effective date of April 1, 2007. This will allow for the recruitment and selection of new personnel to administer the ordinance. This time is also necessary to obtain state approval of the ordinance. If the ordinance is adopted, staff intends to apply for a state grant to reimburse the county for 40% of 12 months expenses. This grant would not become effective before July 1, 2007 and any purchases or expenses incurred before that date will not be reimbursed.

#### Access and Haul Roads

Staff also received comment regarding the requirement for a “mud mat.” A mud mat involves the placement of stone at the entrance to a work site to prevent the tracking of mud onto roads by vehicles entering and exiting the site. This is required under the state design manual but staff included it as a specific provision to address concerns raised by citizens. The size of the mud mat will vary by job site as larger sites require larger mud mats (see section 200-111).

#### Summary and Recommendation

This memorandum summarizes the significant changes to the draft and outlines the major components of the ordinance. If the Board desires no further changes, adoption of the draft ordinance is recommended. No further hearings are required.

SOIL EROSION  
AND  
SEDIMENTATION CONTROL ORDINANCE  
FOR  
HENDERSON COUNTY, NORTH CAROLINA

DRAFT



*November 6, 2006 Board of Commissioners Meeting*

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AN ORDINANCE TO PROVIDE FOR THE CONTROL OF SOIL EROSION AND SEDIMENTATION.

NOW, THEREFORE, BE IT ORDAINED by the Henderson County Board of Commissioners that Chapter 200 of the Henderson County Code hereby adopts the following ordinance.

**§200-101 TITLE**

This ordinance may be cited as the Henderson County Soil Erosion and Sedimentation Control Ordinance.

**§200-102 PURPOSE**

This ordinance 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.

**§200-103 DEFINITIONS**

As used in this ordinance, unless the context clearly indicates otherwise, the following definitions apply:

***Accelerated Erosion.*** Any increase over the rate of natural erosion as a result of land disturbing activity.

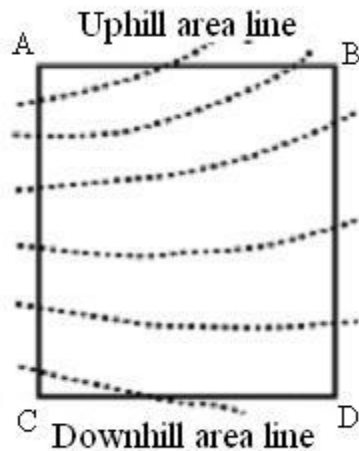
***Act.*** The North Carolina Sedimentation Pollution Control Act of 1973 and all rules and orders adopted pursuant to it.

***Adequate Erosion Control Measure, Structure, or Device.*** One which controls the soil material within the land area under responsible control of the person conducting the land disturbing activity.

***Affiliate.*** A person that directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control of another person.

**Average Slope.** Calculating the average slope of the disturbed area is based on the elevations at the corners. An imaginary rectangle or square would have to be applied to calculate the area. The average slope is calculated by subtracting the average elevation of the uphill area line and the average elevation of the downhill area line and dividing the sum by the average distance between the two area lines. The average elevation of the uphill or downhill area line is calculated by adding the elevations at the ends of the area line and dividing by two (see figure below).

### Calculating Average Slope



Average elevation of uphill area line — Average elevation of downhill area line

$$\frac{\left( \frac{A + B}{2} \right) - \left( \frac{C + D}{2} \right)}{\frac{\text{Length of line AC} + \text{Length of line BD}}{2}}$$

**Bankfull.** The water level, or stage, at which a stream, river or lake is at the top of its banks and any further rise would result in water moving into the flood plain.

**Being Conducted.** A land-disturbing activity has been initiated and permanent stabilization of the site has not been completed.

**Borrow.** Fill material which is required for on-site construction and is obtained from other locations.

**Buffer Zone.** The strip of land adjacent to a lake or natural watercourse.

**Commission.** The North Carolina Sedimentation Control Commission.

**Completion of Construction or Development.** That no further land-disturbing activity is required on a phase of a project except that which is necessary for establishing a permanent ground cover.

**Department.** The North Carolina Department of Environment and Natural Resources.

**Design Manual.** The County adopted manual that provides comprehensive guidelines and practices for controlling erosion and sedimentation. Unless a manual is adopted by the County, the State manual shall serve as the Design Manual.

**Design Professional.** A civil engineer or landscape architect who prepares the Erosion and Sediment Control Plan for the person or agent engaged in land-disturbing activity.

**Director.** The Director of the Division of Land Resources of the Department of Environment and Natural Resources.

**Discharge Point.** That point at which storm water runoff leaves a tract of land.

**District.** The Henderson County Soil and Water Conservation District created pursuant to Chapter 139, North Carolina General Statutes.

**Energy Dissipator.** A structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high velocity flow.

**Erosion.** The wearing away of land surfaces by the action of wind, water, gravity, or any combination thereof.

**Ground Cover.** Any natural vegetative growth or other material which renders the soil surface stable against accelerated erosion.

**Henderson County Board of Adjustment.** The Henderson County Zoning Board of Adjustment as appointed by the Henderson County Board of Commissioners.

**High Quality Waters.** Those classified as such in 15A NCAC 2B.0101(e) (5) – General Procedures, which is incorporated herein by reference to include further amendments pursuant to G.S. 150B-14(c).

**High Quality Water (HQW) Zones.** For the Coastal Counties, areas within 575 feet of High Quality Waters; and for the remainder of the state, areas within one mile and draining to HQW's.

**Lake or Natural Watercourse.** Any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond, natural or impounded in which sediment may be moved or carried in suspension, and which could be damaged by accumulation of sediment.

**Land-disturbing Activity.** Any use of the land by any person in residential, industrial, education, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may



cause or contribute to sedimentation.

**Local Government.** Any county, incorporated village, town or city, or any combination of counties, incorporated villages, towns, and cities, acting through a joint program pursuant to the provisions of the Act.

**Natural Erosion.** The wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

**Ordinance Administrator.** The Henderson County authorized person or his/her designee responsible for the County's Erosion and Sediment Control Program.

**Parent.** An affiliate that directly, or indirectly through one or more intermediaries, controls another person.

**Person.** Any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

**Person Conducting land-Disturbing Activity.** Any person who may be held responsible for violation unless expressly provided otherwise by this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

**Person Responsible for the Violation.** means:

- (1) the developer or other person who has or holds himself out as having financial or operation control over the land-disturbing activity; or
- (2) the landowner or person in possession or control of the land that has directly or indirectly allowed the land-disturbing activity, or benefited from it or failed to comply with a duty imposed by any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act.

**Phase of Grading.** One of two types of grading: rough or fine.

**Plan.** An erosion and sedimentation control plan

**Sediment.** Solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

**Sedimentation.** The process by which sediment resulting from accelerated erosion has been or is being transported off the sit of the land-disturbing activity or into a lake or natural watercourse.

**Siltation.** Sediment resulting from accelerated erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land-disturbing activity; and which has been deposited, or is in suspension in water.

**Sketch Plan.** A graphic illustration used to depict proposed land-disturbing activities.

**Storm Drainage Facilities.** The system of inlets, conduits, channels, ditches and appurtenances which serve to collect and convey storm water through and from a given drainage area.

**Storm Water Runoff.** The surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.

**Subsidiary.** An affiliate that is directly or indirectly through one or more intermediaries, controlled by another person.

**Ten-Year Storm.** The storm water runoff resulting from precipitation of an intensity expected to be equaled or exceeded, on the average, once in ten years, and of a duration which will produce the maximum peak rate of runoff for the watershed of interest under average antecedent wetness conditions.

**Tract.** All contiguous land and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership.

**Twenty-five Year Storm.** The storm water runoff resulting from precipitation of an intensity expected to be equaled or exceeded on the average, once in 25 years, and of a duration which will produce the maximum peak rate of runoff for the watershed of interest under average antecedent wetness conditions.

**Uncovered.** The removal of ground cover from, on, or above the soil surface.

**Undertaken.** The initiating of any activity, or phase of activity, which results or will result in a change in the ground cover or topography of a tract of land.

**Velocity.** The average velocity of flow through the cross section of the main channel at the peak flow of the storm of interest. The cross section of the main channel shall be that area defined by the geometry of the channel plus the area of flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not to be included for the purpose of computing velocity of flow.

**Waste.** Surplus materials resulting from on-site land-disturbing activities and being disposed of at other locations.

**Working Days.** Days exclusive of Saturday and Sunday during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.

**§200-104 SCOPE AND EXCLUSIONS**

- A. Geographical Scope of Regulated Land-Disturbing Activity. This ordinance 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 ordinance to all land-disturbing activity, this ordinance 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 the Department. 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 ordinance 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 General Statutes.
  
  - (4) A land-disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 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 ordinance without first obtaining a Plan or Permit approval from the Ordinance Administrator.
- (1) For the purpose of the article, 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 to 25 percent 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 in its natural state. The average slope shall be calculated only for the disturbed area.
  - (2) For purposes of this article 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-disturbance activity exceeding 100 square feet without a sketch plan (not to scale). The sketch plan shall be submitted on 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, streets, 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 Article 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, ordinance, or rules, the more restrictive provision shall apply.
- F. Plan and Permit Approval Exceptions. Notwithstanding the general requirement to obtain a Plan or Permit approval prior to undertaking land-disturbing activity, a Plan or Permit approval shall not be required for land-disturbing activity that does not exceed the provisions as specified in §200-104C. No Plan or Permit approval is required if a building permit has been obtained prior to the effective date of this ordinance and 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.

**§200-105 MANDATORY STANDARDS FOR LAND-DISTURBING ACTIVITY**

No land-disturbing activity subject to the control of this ordinance 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 twenty-five percent (25%) of the buffer zone nearest the land-disturbing activity.
    - (a) Projects On, Over or Under Water. This subdivision 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 twenty-five percent (25%) of the buffer zone nearest the land-disturbing activity, whichever is greater. Provided, however, that the 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 subdivision 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 percent (10%) 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.
- (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 the Department'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 twelve (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 §200-108B(5) of this ordinance, 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, thirty (30) or more days prior to initiating the activity, a Plan for the activity is filed with and approved by the Ordinance 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 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 day prior to initiating any land-disturbing activity.

**§200-106 EROSION AND SEDIMENTATION CONTROL PLANS**

- A. **Pre-Submittal Conference.** A pre-submittal conference can be requested by person or an agent of that party conducting land-disturbing activity. At the pre-submittal, the Ordinance Administrator shall inform the applicant of the processes involved with Plan review and approval, issuance of a Plan Certificate and Letter of Approval, and the relationship of said 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 Ordinance Administrator also shall notify the applicant of the appeal process as provided in the Ordinance.
- B. **Plan Submission.** A Plan shall be prepared for all land-disturbing activities subject to this ordinance. A Plan shall be prepared by a design professional. Three (3) copies of the Plan shall be filed with the Ordinance Administrator at least 30 days prior to the commencement of the proposed activity.
- C. **Financial Responsibility and Ownership.** 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 Plan, the Act, this ordinance, or rules or orders adopted or issued pursuant to this ordinance. 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 Plan submitted for a land-disturbing activity for which an environmental document is required by the North Carolina Environment Policy Act (G.S. 113A-1, et seq.) shall be deemed incomplete until a complete environmental document is available for review. The Ordinance Administrator shall promptly notify the person submitting the Plan that the 30-day time limit for review of the Plan pursuant to this ordinance shall not begin until a complete environmental document is available for review.
- E. Content. The 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 ordinance. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the Ordinance 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 District shall review the Plan and submit any comments and recommendations to the Ordinance Administrator within 20 days after the District received the 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 Plan.
- H. Timeline for Decisions on Plans. The Ordinance Administrator, will review each complete Plan submitted to them and within 30 days of receipt thereof will notify the person submitting the 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 Plan within 30 days of receipt shall be deemed approval. The Ordinance Administrator will review each revised Plan submitted to them and within 15 days of receipt thereof will notify the person submitting the 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 Plan within 15 days of receipt shall be deemed approval.

- I. **Approval.** The Ordinance Administrator shall only approve a 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 Ordinance Administrator shall condition approval of Plans upon the applicant's compliance with federal and state water quality laws, regulations and rules. The Ordinance Administrator may establish an expiration date, not to exceed three (3) years, for Plans approved under this ordinance.
- J. **Disapproval for Content.** The Ordinance Administrator may disapprove a Plan or draft Plan based on its content. A disapproval based upon a Plan's content must specifically state in writing the reasons for disapproval.
- K. **Other Disapprovals.** The Ordinance Administrator may disapprove a Plan or draft Plans if implementation of the 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 a 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 Plan, or has received notice of violation of a Plan previously approved by the Commission or a local government pursuant to the Act 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 Act or a local ordinance adopted pursuant to the Act by the time the payment is due.
  - (3) Has been convicted of a misdemeanor pursuant to G. S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act or;
  - (4) Has failed to substantially comply with State rules or local ordinances and regulations adopted pursuant to the Act.

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

In the event that a Plan is disapproved pursuant to this subsection, the Ordinance Administrator shall notify the Director of such disapproval within ten (10) days. The Ordinance Administrator shall advise the applicant and the Director in writing as to the specific reasons that the Plan was disapproved.

- L. Notice of Activity Initiation. No person may initiate a land-disturbing activity before notifying the agency that issued the 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. A Plan approval issued under this article 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 a Plan, if the Ordinance Administrator either upon review of such Plan or on inspection of the job site, determines that a significant risk of accelerated erosion or off-site sedimentation exists, the Ordinance Administrator shall require a revised Plan. Pending the preparation of the revised 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 Plan, the Ordinance Administrator determines that the Plan is inadequate to meet the requirements of this ordinance, the Ordinance Administrator may require any revision of the Plan that is necessary to comply with this ordinance.
- P. Amendment to a Plan. Applications for amendment of a 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 Ordinance Administrator the land-disturbing activity shall not proceed except in accordance with the Plan as originally approved.
- Q. Failure to File a Plan. Any person engaged in land-disturbing activity who fails to file a Plan in accordance with this ordinance, or who conducts a land-disturbing activity except in accordance with provisions of an approved Plan shall be deemed in violation of this ordinance.

**§200-107 BASIC CONTROL OBJECTIVES**

An erosion and sedimentation control Plan may be disapproved if the 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 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 Storm Water Runoff - When the increase in the velocity of storm water runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving watercourse, a 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.

**§200-108 DESIGN AND PERFORMANCE STANDARDS**

- A. Except as provided in §200-108B(2) of this ordinance, 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 twenty 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.

- (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 twenty-five 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% for the 40 micron (0.04 millimeter) size soil particle transported into the basin by the runoff of that two 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 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 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.

**§200-109 STORM WATER 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%.

#### Maximum Permissible Velocities Table

The following is a table for maximum permissible velocity for storm water discharges in feet per second (F.P.S.) and meters per second (M.P.S.):

Material	F.P.S.	M.P.S.
Fine sand (noncolloidal)	2.5	.8
Sandy loam (noncolloidal)	2.5	.8
Silt loam (noncolloidal)	3.0	.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 Ordinance Administrator recognizes that the

management of storm water 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 storm water 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 Ordinance Administrator that storm water discharge velocities will not create an erosion problem in the receiving watercourse.

#### **§200-110 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 the Department'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.

#### **§200-111 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 mat to prevent the accumulation of soil and mud on existing roads.

**§200-112 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.

**§200-113 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 Ordinance, the Act, or any order adopted pursuant to this ordinance or the Act. 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 or street right-of-way or easement accepted for maintenance by a governmental agency.

**§200-114 ADDITIONAL MEASURES**

Whenever the Ordinance 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.

**§200-115 EXISTING UNCOVERED AREAS**

- A. All uncovered areas existing on the effective date of this ordinance which resulted from land-disturbing activity, exceed one 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 Ordinance Administrator shall serve upon the landowner or other person in possession or control of the land a written notice to comply with the Act, this ordinance, a rule or order adopted or issued pursuant to the Act by the Commission or by the Ordinance 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 Ordinance Administrator reserves the right to require preparation and approval of a 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.

**§200-116 FEES**

- A. Henderson County may establish a fee schedule for the review and approval of Plans or Permits.
- B. In establishing the fee schedule, the County shall consider the administrative and personnel costs incurred for reviewing the Plans or Permits and for related compliance activities.

**§200-117 PLAN AND PERMIT APPEALS**

- A. Except as provided in §200-117B of this ordinance, the appeal of a disapproval or approval with modifications of a Plan or Permit shall be governed by the following provisions:
  - (1) The disapproval or modification of any proposed Plan or Permit by the Ordinance Administrator shall entitle the person submitting the 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 Board of Adjustment within 30 days after the date of the appeal or request for a hearing.
  - (3) The Henderson County Board of Adjustment will render its final decision on any Appeal within 45 days of the completion of the hearing.
  - (4) If the Henderson County Board of Adjustment upholds the disapproval or modification of a proposed Plan or Permit following the hearing, the person submitting the Plan or Permit shall then be entitled to appeal the County's decision to the Competent Court of Jurisdiction.



- B. In the event that a Plan or Permit is disapproved pursuant to §200-106J of this ordinance, the applicant may appeal the Board of Adjustment's disapproval of the Plan directly to the North Carolina Sediment Control Commission.

**§200-118 INSPECTIONS AND INVESTIGATIONS**

- A. **Inspection.** Agents, officials, or other qualified persons authorized by the Ordinance Administrator will periodically inspect land-disturbing activities to ensure compliance with the Act, this ordinance, or rules or orders adopted or issued pursuant to this ordinance, and to determine whether the measures required in the 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 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 Ordinance Administrator determines that a person engaged in land-disturbing activity has failed to comply with the Act, this ordinance, or rules, or orders adopted or issued pursuant to this ordinance, a notice of violation shall be served upon that person. The notice may be served by any means authorized under GS 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 Act, or this ordinance, or rules, or orders adopted pursuant to this ordinance, and inform the person of the actions that need to be taken to comply with the Act, this ordinance, or rules or orders adopted pursuant to this ordinance. 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 G.S. 113A-64 and this ordinance.
- 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 Ordinance Administrator shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this ordinance, 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 Ordinance 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.

**§200-119 PENALTIES**

A. Civil Penalties

- (1) Civil Penalty for a Violation. Any person who violates any of the provisions of this ordinance, or rule or order adopted or issued pursuant to this ordinance, or who initiates or continues a land-disturbing activity for which a Plan or Permit is required except in accordance with the terms, conditions, and provisions of an approved Plan or Permit, is subject to a civil penalty. The maximum civil penalty amount that the Ordinance Administrator may assess per violation is five thousand dollars (\$5,000.00). 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 Ordinance 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 ordinance.
- (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 G.S. 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 Henderson County Board of Adjustment 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 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 ordinance shall be credited to the Civil Penalty and Forfeiture Fund.

B. Criminal Penalties. Any person who knowingly or willfully violates any provision of this ordinance, or rule or order adopted or issued pursuant to this ordinance, or who knowingly or willfully initiates or continues a land-disturbing activity for which a Plan is required except in accordance with the terms, conditions, and provisions of an approved Plan, shall be guilty of a Class 2 misdemeanor which may included a fine not to exceed \$5,000 as provided in G.S. § 113A-64.

## **§200-120 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 ordinance, rule, regulation or order adopted or issued by Henderson County, or any term, condition, or provision of an approved Plan, it may, either before or after the institution of any other action or proceeding authorized by this ordinance, 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 ordinance.

**§200-121 RESTORATION AFTER NON-COMPLIANCE**

The Ordinance Administrator may require a person who engaged in a land-disturbing activity and failed to retain sediment generated by the activity, as required by G.S. 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 ordinance.

**§200-122 SEVERABILITY**

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

**§200-123 EFFECTIVE DATE**

This ordinance becomes effective on April 1, 2007.