

Chapter 31 SOIL EROSION AND SEDIMENTATION CONTROL

- Sec. 31-1. Title.
- Sec. 31-2. Purpose.
- Sec. 31-3. Definitions.
- Sec. 31-4. Scope and exclusions.
- Sec. 31-5. Mandatory standards for land-disturbing activity.
- Sec. 31-6. Erosion and sedimentation control plans.
- Sec. 31-7. Basic control objectives.
- Sec. 31-8. Design and performance standards.
- Sec. 31-9. Stormwater outlet protection.
- Sec. 31-10. Borrow and waste areas.
- Sec. 31-11. Access and haul roads.
- Sec. 31-12. Operations in lakes or natural watercourses.
- Sec. 31-13. Responsibility for maintenance.
- Sec. 31-14. Additional measures.
- Sec. 31-15. Existing uncovered areas.
- Sec. 31-16. Fees.
- Sec. 31-17. Plan appeals.
- Sec. 31-18. Inspections and investigations.
- Sec. 31-19. Penalties.
- Sec. 31-20. Injunctive relief.
- Sec. 31-21. Restoration after noncompliance.
- Sec. 31-22. Severability.
- Sec. 31-23. Effective date.

Sec. 31-1. Title.

This chapter may be cited as the County of Catawba Soil Erosion and Sedimentation Control Ordinance. (Ord. No. 2005-07, § 1, 5-2-2005)

Sec. 31-2. Purpose.

This chapter is adopted for the purpose of:

- a) 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; and
- b) Establishing procedures through which these purposes can be fulfilled.

(Ord. No. 2008-07, § 2, 5-2-2005)

Sec. 31-3. Definitions.

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

Accelerated erosion means any increase over the rate of natural erosion as a result of land-disturbing activity.

Act means 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 means one which controls the soil material within the land area under responsible control of the person conducting the land-disturbing activity.

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

Being conducted means a land-disturbing activity has been initiated and permanent stabilization of the site has not been completed.

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

Buffer zone means the strip of land adjacent to a lake or natural watercourse.

Coastal counties means the following counties: Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrell, and Washington.

Commission means the North Carolina Sedimentation Control Commission.

Completion of construction or development means 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 means the North Carolina Department of Environment and Natural Resources.

Director means the director of the division of land resources of the department of environment and natural resources.

Discharge point means that point at which stormwater runoff leaves a tract of land.

District means the 2nd Soil and Water Conservation District created pursuant to G.S. ch. 139.

Energy dissipater means a structure or 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 means the wearing away of land surfaces by the action of wind, water, gravity, or any combination thereof.

Ground cover means any natural vegetative growth of other material which renders the soil surface stable against accelerated erosion.

High quality waters means 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 means, 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 means 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 means any use of the land by any person in residential, industrial, education, institutional, or commercial development, highway and road construction maintenance that results in a change in the natural cover or topography and that may cause or contribute to sedimentation.

Local government means 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 means the wearing away of the earth surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

Parent means an affiliate that directly, or indirectly through one or more intermediaries, controls another person.

Person means 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 means any person who may be held responsible for violation unless expressly provided otherwise by this chapter, the Act, or any order adopted pursuant to this chapter or the Act.

Person responsible for the violation means:

- (1) The developer or the other person who has or holds himself out as having financial or operation control over the-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 chapter, the Act, or any order adopted pursuant to this chapter or the Act.
- (3) **Phase of grading** means one or two types of grading; rough or fine.

Plan means an erosion and sedimentation control plan.

Sediment means 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 means the process by which sediment resulting from acceleration erosion has been or is being transported off the sit [site] of the land-disturbing activity or into a lake or natural watercourse.

Situation means 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.

Storm drainage facilities means 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 means the surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.

Subsidiary means an affiliate that is directly or indirectly through one or more intermediaries controlled by another person.

Ten-year storm means the stormwater runoff resulting from precipitation of an intensity expected to 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 means all contiguous land and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership.

Twenty-five year storm means the stormwater 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 means the removal of ground cover from, on, or above the soil surface.

Undertaken means 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 means 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 the vertical lines at the main channel banks. Overload flows are not o be included for the purpose of computing velocity of flow.

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

Working days means days exclusive of Saturday and Sunday during which weather conditions or soil conditions permit land-disturbing activity to be undertaken.
(Ord. No. 2005-07, § 3, 5-2-2005)

Sec. 31-4 Scope and exclusions

- (a) **Geographical scope of regulated land-disturbing activity.** This chapter shall apply to land-disturbing activity within the territorial jurisdiction of the county and to the extraterritorial jurisdiction of the county as allowed by agreement between local governments, the extent of annexation or other appropriate legal instrument or law.
- (b) **Exclusions from regulated land-disturbing activity.** Notwithstanding the general applicability of this chapter to all land-disturbing activity, this chapter 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:
 - (i) Forage and sod crops, grain and feed crops, tobacco, cotton, and peanuts.
 - (ii) Dairy animals and dairy products.
 - (iii) Poultry and poultry products.
 - (iv) Livestock, including beef cattle, sheep, swine, horses, ponies, mules, and goats.
 - (v) Bees and apiary products.
 - (vi) 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 chapter 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, G.S. ch. 74, art.7.
 - (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 approval requirement for land-disturbing activity.** No person shall undertake any land-disturbing activity subject to this chapter without first obtaining a plan approval therefore from the county.
- (d) **Protection of property.** Persons conducting land-disturbing activity shall take all responsible 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 approval exceptions.** Notwithstanding the general requirement to obtain a plan approval prior to undertaking land-disturbing activity, a plan approval shall not be required for land –disturbing activity that does not exceed 43,560 square feet in surface area, lands under one or diverse ownership being developed as a unit will be aggregated.

(Ord. No. 2005-07, § 4, 5-2-2005)

Sec. 31-5. 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 25 percent of the buffer zone nearest the land-disturbing activity.

- (i) **Projects on, over or under water.** This subdivision shall not apply to a land-distributing activity in connection with the construction of facilities to be located on, over, or under a lake or natural watercourse.
- (ii) **Buffer measurement.** Unless otherwise provided, the width of a buffer zone is measured horizontally from the edge of the water 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 environment management commission shall have an undisturbed buffer zone 25 feet wide or of sufficient width to confine visible siltation within 25 percent 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 then the duration of said disturbance would be temporary and the extent of said disturbance would be minimal.

- (i) **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.
- (ii) **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.
- (iii) **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 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 buffer zone. Larger areas may be disturbed with the written approval of the director.
- (iv) **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 which can be retained by vegetative cover or other adequate erosion control devices or structures. In any event, slopes left exposed will, within 15 working days or 30 calendar days of completion of any phase of grading, whichever period is shorter, be planted or planted or otherwise provided with

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 12 inches, and any materials which would cause the site to be regulated as a landfill by the state.
- (d) **Ground cover.** Whenever land-disturbing activity is undertaken on a tract comprising more than one acre, if more than one acre is uncovered, 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 the 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 subsection 31-8(b)(5), provisions for a ground cover sufficient to restrain erosion must be accomplished within 15 working days or 90 calendar days following completion of construction or development, whichever period is shorter.
- (e) **Prior plan approval.** No person shall initiate any land-disturbing activity on a tract if more than one acre is to be uncovered unless, 30 or more days prior to initiating the activity, a plan for such activity is filed with and approved by the county. The county shall forward to the director of the division of water quality for the purpose of dewatering or lowering the water table of the tract.

(Ord. No. 2005-07, § 5, 5-2-2005)

Sec. 31-6 Erosion and sedimentation control plans.

- (a) **Plan submission.** A plan shall be prepared for all land-disturbing activities subject to this chapter whenever the proposed activity is to be undertaken on a tract comprising more than one acre, if more than one acre is to be uncovered. Five copies of the plan shall be filed with the county , a copy shall be simultaneously submitted to the 2nd Soil and Water Conservation District at least 30 days prior to the commencement of the proposed activity.
- (b) **Financial responsibility and ownership.** Plans may be disapproved unless accompanied by an authorized statement of financial responsibility and ownership. This statement shall be signed by the person financially responsible for the land-disturbing 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 noncompliance with the plan, the Act, this chapter, or rules or orders adopted or issued pursuant to this ordinance.
- (c) **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 county 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.
- (d) **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 chapter. Plan content may vary to meet the needs of the specific site requirements. Detailed guidelines for plan preparation may be obtained from the county, on request.
- (e) **Soil and water conservation district comments.** The district shall review the plan and submit any comments and recommendations to the county within 20 days after the district received the plan, or within any shorter period of time as may be agree upon by the district and the 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.

- (f) **Timeline for decisions on plans.** The county 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 county 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.
- (g) **Approval.** The county 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 county may establish an expiration date, not to exceed three years, for plans approved under this chapter.
- (h) **Disapproval of content.** The county shall 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.
- (i) **Other disapprovals.** The county 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:
 - (i) 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;
 - (ii) 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.
 - (iii) 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;
 - (iv) 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 the subsection, the county shall notify the director of such disapproval within 10 days. The county shall advise the applicant and the director in writing as to the specific reasons that the plan was disapproved.

(j) **Notice of activity initiation.** No person may initiate a land-disturbing activity before notifying authority a preconstruction conference may be required.

(k) **Preconstruction conference.** When deemed necessary by the approving authority a preconstruction conference may be required.

(l) **Display of a plan approval.** A plan approval issued under this chapter 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.

(m) **Required revisions.** After approving a plan, if the county wither 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 county 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 county determines that the plan is inadequate to meet the requirements of this chapter, the county may require any revision of the plan that is necessary to comply with this chapter.

(n) **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 county, the land-disturbing activity shall not proceed except in accordance with the plan as originally approved.

(o) **Failure to file a plan.** Any person engaged in a land-disturbing activity who fails to file a plan in accordance with this chapter, or who conducts a land-disturbing activity except in accordance with provisions of an approved plan, shall be deemed in violation of this ordinance.
(Ord. No. 2005-07, § 7, 5-2-2005)

Sec. 31-7 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 activities are to be planned and conducted to limit exposure to the shortest feasible time.

(d) **Control surface water.** Surface water run-off originating upgrate 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 run-off 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.

(Ord. No. 2005-07, § 7, 5-2-2005)

Sec. 31-8. Design and Performance Standards

(a) **[Runoff rates.]** Except as provided in subsection (b) (2), 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-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 procedure including, but not limited to, the "North Carolina Erosion and Sediment Control Planning and Design Manual".

(b) **HQW zones.** In high quality water (HQW) zones the following design standards shall apply.

(1) **Limit 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 an HQW zone shall be governed by this section. Larger areas may be uncovered within the boundaries of 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 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 United States or any generally recognized organization or association.

(3) **Setting efficiency.** Sediment basins within HQW zones shall be designed and constructed such that the basin will have a settling efficiency of at least 70percent 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.

(Ord. No. 2005-07, § 8, 5-2-2005)

Sec. 31-9. 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-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 the development.

If condition (1) or (2) 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 ten percent.

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.):

<i>Material</i>	<i>F.P.S.</i>	<i>M.P.S.</i>
Fine sand (non-colloidal)	2.5	.8
Sandy loam (non-colloidal)	2.5	.8
Silt loam (non-colloidal)	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 (colloidal)	5.0	1.5
Alluvial silts (non-colloidal)	3.5	1.1
Alluvial silts (colloidal)	5.0	1.5
Coarse gravel (non-colloidal)	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 county 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 dissipaters 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 county that storm water discharge velocities will not create an erosion problem in the receiving watercourse.
(Ord. No. 2005-07, § 9, 5-2-2005)

Sec. 31-10. 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 nor 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 waster management shall be considered as part of the land-disturbing activity where the borrow material is being used or form which the waste material originated. When the person conducted 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.
(Ord. No. 2005-07, § 10, 5-2-2005)

Sec. 31-11. 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.
(Ord. No. 2005-07, § 11, 5-2-2005)

Sec. 31-12. 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.
(Ord. No. 2005-07, § 12, 5-2-2005)

Sec. 31-13. 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 chapter, the Act, or any order adopted pursuant to this chapter 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 government agency.
(Ord. No. 2005-07, § 13, 5-2-2005)

Sec. 31-14. Additional measures.

Whenever the county 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.
(Ord. No. 2005-07, § 14, 5-2-2005)

Section 31-15. Existing uncovered areas.

(a) All uncovered areas existing on the effective date of this chapter [July 1, 2005] 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 retrain accelerated erosion and control off-site sedimentation.

(b) The county shall serve upon the landowner or other person on possession or control of the land a written notice to comply with the Act, this chapter, a rule or order adopted or issued pursuant to the Act by the commission or by the county. The notice to comply shall be sent by registered or certified mail, return receipt requested, or other means provided in G.S. 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 county reserves the right to require preparation and approval of a plan in any instance where extensive control measures are required.

(d) This rules shall not require ground cover on cleared land forming the future basin of a planned reservoir.

(Ord. No. 2005-07, § 15, 5-2-2005)

Sec. 31-16. Fees.

- (a) The county may establish a fee schedule for the review and approval of plans.
- (b) In establishing the fee schedule, the county shall consider the administrative and personnel costs incurred for reviewing the plans and for related compliance activities.

(Ord. No. 2005-07, § 16, 5-2-2005)

Sec. 31-17. Plan appeals.

(a) Except as provided in subsection (b), the appeal of a disapproval or approval with modifications of a plan shall be governed by the following provisions:

(1) The disapproval or modification of any proposed plan by the county shall entitle the person submitting the plan 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 subdivision review board within 60 days of the date of a timely written request for a hearing.

(3) The subdivision review board will render its final decision on any plan following the completion of the hearings.

(4) If the subdivision review board upholds the disapproval or modification of a proposed plan following the hearing, the person submitting the plan shall then be entitled to appeal the county's decision to the sedimentation control commission as provided in G.S. 113A-61(c) and 15A NCAC 4B.0118(d).

(b) In the event that a plan is disapproved pursuant to subsection 31-6(i), the applicant may appeal the county's disapproval of the plan directly to the commission.

(Ord. No. 2005-07, § 17, 5-2-2005)

Sec. 31-18. Inspections and Investigations.

(a) **Inspection.** Agents, officials, or other qualified persons authorized by the county will periodically inspect land-disturbing activities to ensure compliance with the Act, this chapter, or rules or orders adopted or issued pursuant to this chapter, and ensure compliance with the Act, this chapter, or rules or orders adopted or issued pursuant to this chapter, and to determine whether the measures required in the plan 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 county determines that a person engaged in land-disturbing activity has failed to comply with the Act, this chapter, rules, or orders adopted or issued pursuant to this chapter, a notice of violation shall be served upon that person. The notice may be served by any means authorized under G.S. 1A-1, rule 4. The notice shall specify a date by which the person must comply with the Act, or this chapter, or rules, or orders adopted pursuant to this chapter, and inform the person of the actions that need to be taken to provided in G.S. 113A-64 and this chapter.

(d) **Investigation.** The county shall have the power to conduct such investigation as it may reasonably deem necessary to carry out its duties as prescribed in this chapter, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating inspecting the sites of any land-disturbing

(e) **Statements and reports.** The county 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.

(Ord. No. 2005-07, § 18, 5-2-2005)

Sec. 31-19. Penalties.

(a) *Civil penalties.*

(1) ***Civil penalty for a violation.*** Any person who violates any of the provisions of this chapter, or rule or order adopted or issued pursuant to this chapter, or who 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, is subject to a civil penalty. The maximum civil penalty amount that the county may assess per violation is \$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 governing body of the county shall determine the amount of the civil penalty based upon the following factors:

(i) The degree and extent of harm caused by the violation,

(ii) The cost of rectifying the damage

(iii) The amount of money the violator saved by noncompliance

(iv) Whether the violation was committed willfully, and

(v) The prior record of the violator in complying or failing to comply with this chapter.

(3) ***Notice of civil penalty assessment.*** The governing body of the county 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 county within 30 days after the date of the written demand for the hearing. The agency conducting the hearing shall make its recommendation to the governing body of the county within 30 days after the date of the hearing.

(5) ***Final decision.*** The governing body shall render its final decision on the civil penalty within 15 days of the receipt of the recommendation from the agency.

(6) ***Appeal of final decision.*** Appeal from the final decision of the governing body shall be to the superior court of the county where the violation occurred, or the location of the violator's residence or principal place of business.

(7) ***Collection.*** If payment is not received within 30 days after it is due, the 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 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 is contested that is contested is due at the administrative and judicial review of the assessment.

(8) ***Credit of civil penalties.*** Civil penalties collected pursuant to this section shall be credited to the civil penalty and forfeiture fund. [Note: Case law on an air quality delegated program determined that civil penalties assessed by local governments pursuant to a state delegation had to be remitted to the civil penalty and forfeiture fund for the benefit of the local school boards pursuant to the State Constitution's provision on the state penalties, fines and forfeitures.]

(b) **Criminal penalties.** Any person who knowingly or willfully violates any provision of this chapter, or rule or order adopted or issued pursuant to this chapter, 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 include a fine not to exceed \$5,000.00 as provided in G.S. § 113A-64.

(Ord. No. 2005-07, § 19, 5-2-2005)

Sec. 31-20. Injunctive relief.

(a) **Violation of local program.** Whenever the governing body has reasonable cause to believe that any person is violating or threatening to violate any ordinance, rule, regulation, or order adopted or issued by the 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 chapter, 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 chapter. Upon determination by a court that an alleged violation is occurring or threatened, county shall issue no building, zoning, or environmental permits to the violator until such violation is abated.

(Ord. No. 2005-07, § 20, 5-2-2005)

Sec. 31-21 Restoration after noncompliance.

The county 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 chapter.

(Ord. No. 2005-07, § 21, 5-2-2005)

Sec. 31-22. Severability.

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

(Ord. No. 2005-07, § 22, 5-2-2005)

Sec. 31-23. Effective date.

This chapter becomes effective on July 1, 2005.

(Ord. No. 2005-07, § 23, 5-2-2005)