

(5)

boundaries as shown on the official profiles or maps. A channel alteration requiring an amendment to the official profiles or maps shall not be allowed until the board of adjustment has determined that the effects of such an alteration will not be detrimental to other land and to the public health, safety, and welfare, and has approved the amendment to the official profiles or maps.

Where such amendment would alter an established boundary on a flood insurance rate map and flood boundary and floodway map, the amendment shall be contingent on approval by the Federal Insurance Administration.

Adjacent jurisdictions that may be affected by an amendment and the Federal Insurance Administration shall be notified of the amendment. (Ord. No. O-78-17, § 2, 4-10-78)

Secs. 5-58—5-69. Reserved.

Editor's note—Section 5 of Ord. No. O-85-4, adopted Feb. 11, 1985, deleted §§ 5-58—5-69 which pertained to various procedures, requirements and standards relative to the flood damage prevention ordinance. Former §§ 5-58—5-69 derived from Ord. No. O-78-17, § 2, adopted April 10, 1978.

Secs. 5-70—5-72. Reserved.

ARTICLE V. SOIL EROSION AND SEDIMENTATION CONTROL*

DIVISION 1. GENERALLY

Sec. 5-73. Notice to building inspector of compliance with soil erosion and sedimentation control ordinance.

Prior to being issued a permit for land-disturbing activities regulated by ordinance to provide for the control of soil erosion and sedimentation or any successor ordinance thereto, the permit ap-

**Editor's note*—Ord. No. 86-9-220-2, §§ 1—25, a nonamendatory ordinance adopted Sept. 22, 1986, has been codified within Art. V as Div. 2, §§ 5-80—5-105; sections 5-73—5-79, formerly constituting Art. V, have been designated as Div. 1, Generally; and the former title of the article, "Sedimentation Control," has been changed to reflect the inclusion of Ord. No. 86-9-22/O-2.

plicant will supply the building inspector with written notice from the officer responsible for the enforcement of said ordinance that the project for which the permit is requested (or any large project, a portion of which would be authorized by the requested permit) is in compliance with the regulations of said ordinance. The building inspector will not issue permits for regulated land-disturbing activities without such notice, in view of the substantial hazard to the lives and property of downstream residents caused by the construction in violation of said ordinance.

(Ord. No. O-78-25, 5-8-78)

Secs. 5-74—5-79. Reserved.

DIVISION 2. SOIL EROSION AND SEDIMENTATION CONTROL†

Sec. 5-80. Title.

This division may be cited as the Chapel Hill Soil Erosion and Sedimentation Control Ordinance.

(Ord. No. 93-2-22/O-1, § 1)

Sec. 5-81. Purposes.

This division is adopted for the purposes of:

- (1) Regulating the clearing, grading, excavation, filling and manipulation of the earth and the moving and storing of waters in order to: control and prevent accelerated soil erosion and sedimentation, prevent the pollution of water, prevent damage to public and private property, maintain the balance of nature, prevent the obstruction of natural and artificial drainageways, inhibit flooding and reduce the undermining of roads and other transportation facilities.
- (2) Establishing procedures through which these purposes can be fulfilled.

†*Editor's note*—Ord. No. 93-2-22/O-1, §§ 1—25, adopted Feb. 22, 1993, amended Art. V, Div. 2 to read as herein set out in §§ 5-80—5-106. Prior to inclusion of said ordinance, Art. V, Div. 2, §§ 5-80—5-106 pertained to similar subject matter and derived from Ord. No. 89-6-26/O-2, §§ 1—25, adopted June 26, 1989.

Notwithstanding the provisions of section 5-84 herein, the council hereby declares its intent that all of the departments and agencies of the Town of Chapel Hill, its contractors and subcontractors shall comply with the regulations set forth in this division.

(Ord. No. 93-2-22/O-1, § 2)

Sec. 5-82. Definitions.

As used in this division, 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 activities.

Acre means forty-three thousand five hundred sixty (43,560) square feet.

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.

Agricultural land means land used primarily for the production of plants and animals and intended for private consumption or sale, including but not limited to forage and sod crops, grain and feed crops, tobacco, cotton and peanuts; dairy animals and dairy products; poultry and poultry products; livestock, including the breeding and grazing of any or all such animals; bees and apiary products; and fur animals.

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 area or zone means the strip of land adjacent to a lake or natural watercourse. The boundaries and purposes of which are as set forth in section 8-57(a).

Channel means a natural or artificial watercourse with a definite bed and banks to confine and conduct the flow of water.

Channel alterations means a change of the water-carrying capacity or flow characteristics of a natural or artificial channel by clearing, excavation, bank stabilization or other means.

Channel stabilization means erosion prevention and velocity control in a channel using jetties, drops, revetments, vegetation, and other measures.

Coastal counties means the following North Carolina 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.

Denuded area means any area deprived of its protective vegetative cover and left in that exposed condition.

Department means the North Carolina Department of Environment, Health, and Natural Resources.

Development means any manmade change to improved or unimproved real estate, including but not limited to construction of buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations.

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

District means the Orange or Durham County (as applicable) Soil and Water Conservation District created pursuant to Chapter 139, North Carolina General Statutes.

Diversion means a channel or ridge or combination thereof which is constructed across sloping land either on the contour or at a predetermined

grade which purpose is to intercept and divert surface runoff before it gains sufficient volume and velocity to cause erosion and convey the surface runoff to a protected area.

Energy dissipator means 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 means the wearing away of land surface by the action of wind, water, gravity, or any combination thereof.

Erosion control officer means the person designated under section 8-95 of this division.

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

Groundwater recharge means the infiltration of water into the earth, which may increase the total amount of water stored underground or only replenish supplies depleted through pumping or natural discharge.

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).

Explanatory note: The complete official definition of high quality waters is contained in 15A NCAC 2B.0101(e)(5)-General Procedures. In general, high quality waters are defined by the division of environmental management as those waters which are: those rated as excellent based on biological and physical/chemical characteristics; native trout waters; primary or functional nursery areas; critical habitat areas; all water supply watersheds which are either classified as WS-I or WS-II or those for which a formal petition for reclassification as WS-I or WS-II has been received by the Division of Environmental Management; and all Class SA (shellfish) waters.

High quality water (HQW) zones means areas in coastal counties that are within five hundred

seventy-five (575) feet of high quality waters and for the remainder of the state areas that are within one mile and drain to HQW's.

Impervious structure means any structure which prevents free seepage of rainwater into the ground, including but not limited to buildings, paved roads, paved parking lots, airport runways, etc.

Intermittent stream means a stream or portion of a stream that flows only in direct response to precipitation. It receives little or no water from springs and no long-continued supply from melting snow or other sources. It is dry for a large part of the year.

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; or any body of water which is or would be denoted by a solid blue line or solid blue shapes on United States Geological Survey topographic maps.

Land-disturbing activity means any use of the land by any person in residential, industrial, educational, 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 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's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.

Peak discharge means the maximum instantaneous flow from a given storm condition at a specific location.

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 a violation unless expressly provided otherwise by this division, the Act, or any order adopted pursuant to this division or the Act.

Person responsible for the violation means:

- (1) The developer or other person who has or holds himself/herself out as having financial or operational control over the land-disturbing activity; or
- (2) The landowner or person in possession or control of the land when he/she has directly or indirectly allowed the land-disturbing activity or has benefitted from it or he/she has failed to comply with any provision of this division, the Act, or any order adopted pursuant to this division or the Act as imposes a duty upon him/her.

Phase of grading means one of two (2) types of grading, rough or fine.

Plan means the erosion and sediment 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 accelerated erosion has been or is being transported off the site of the land-disturbing activity or into a lake or natural watercourse.

Siltation 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 stormwater through and from a given drainage area.

Stormwater runoff means the direct runoff of water resulting from precipitation in any form.

Stream means a body of water flowing in a natural surface channel. Flow may be continuous or only during wet periods.

Swale means an elongated depression in the land surface that is at least seasonally wet, is usually heavily vegetated, and is normally without flowing water. Swales conduct stormwater into primary drainage channels and provide some groundwater recharge.

Ten-year storm means the surface runoff resulting from a rainfall of an intensity expected to be equaled or exceeded, on the average once in ten (10) 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 surface runoff resulting from a rainfall of an intensity expected to be equaled or exceeded, on the average, once in twenty-five (25) years, and of a duration which will produce the maximum peak rate of runoff from 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 the flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not being included for the purpose of computing velocity of flow.

Waste means surplus materials resulting from on-site construction and disposed of at other locations.

Wetland means areas that are inundated or saturated at a frequency and for a duration sufficient to support a prevalence of vegetative or aquatic life requiring saturated or seasonally saturated soil conditions for growth and reproduction.

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. 93-2-22/O-1, § 3)

Sec. 5-83. Jurisdiction and effect.

(a) *Jurisdiction.* This division shall apply within the Town of Chapel Hill and its extraterritorial jurisdiction.

(b) *Effect.* It shall be unlawful, within the jurisdiction of this division, to engage in land-disturbing activity, except as provided herein, without first obtaining a permit as required by this division and without complying with the conditions of the issuance of said permit.

Conflicts and duplications among portions of this division shall be resolved in favor of the more stringent regulation.

Whenever conflicts exist between federal, state or local laws, ordinances, or rules, the more restrictive provision shall apply.

(Ord. No. 93-2-22/O-1, § 4)

Sec. 5-84. Scope and exclusions (county-wide).

This division shall apply to land-disturbing activities undertaken by any person in the Town of Chapel Hill, with the following exclusions:

- (1) *Agricultural land.* Those undertaken on agricultural land for the production of plants and animals useful to man, including but not limited to: forage and sod crops, grains and feed crops, tobacco, cotton, and peanuts; dairy animals and dairy products; poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats,

including the breeding and grazing of any or all such animals; bees and apiary products; fur animals.

- (2) *Forest land* Those undertaken on forest land for the production and harvesting of timber and timber products and which are conducted in accordance with "Forest Practice Guidelines Related to Water Quality" (best management practices) as adopted by the department. If land-disturbing activity undertaken on forest land 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 division shall apply to such activity and any related land-disturbing activity on the tract.
- (3) Activities undertaken by persons as defined in G.S. 113A-52(8) who are otherwise regulated by the provisions of G.S. 74-46 through G.S. 74-68, the Mining Act of 1971.
- (4) *State jurisdiction.* Those land-disturbing activities over which the state by statute (G.S. 113A-56(a)), has exclusive regulatory jurisdiction, which are activities:
 - a. Conducted by the state;
 - b. Conducted by the United States;
 - c. Conducted by persons having the power of eminent domain;
 - d. Conducted by local governments;
 - e. Funded in whole or in part by the state or the United States.

(Ord. No. 93-2-22/O-1, § 5)

Sec. 5-85. General requirements.

(a) *Protection of property.* Person(s) conducting land-disturbing activities shall take all reasonable measures to protect all public and private property from damage by such activities. This requirement shall apply to any areas to be disturbed, regardless of the size of the area to be uncovered.



(b) *Erosion control plan requirements.* Prior to the commencement of any land-disturbing activity that will result in the uncovering of more than twenty thousand (20,000) square feet of land, the person(s) conducting the land disturbing activity must prepare and submit an erosion control plan for the proposed site. The plan must be approved and a grading permit obtained prior to the start of the disturbance.

(Ord. No. 93-2-22/O-1, § 6)

Sec. 5-86. Basic control objectives.

An erosion and sedimentation control plan may be disapproved pursuant to section 5-97 of this division if the plan fails to address the following control objectives:

- (1) *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, and appropriate mitigative measures are to be taken to protect those areas.
- (2) *Plan for erosion control.* Design the development and site plan so that the necessary sediment-trapping devices and erosion control measures can be accommodated and are accessible for maintenance and removal. Observe the requirements and standards in Orange County's "Soil Erosion and Sediment Control Manual".
- (3) *Limit exposed areas.* All land-disturbing activities are to be planned and conducted to minimize the size of the area to be exposed at any one time.
- (4) *Limit time of exposure.* All land-disturbing activities are to be planned and conducted to limit exposure to the shortest feasible time.
- (5) *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.

(6) *Control sedimentation.* All land-disturbing activities are to be planned and conducted so as to prevent off-site sedimentation damage.

(7) *Manage storm water runoff.* When the increase in the peak rates and velocity of storm water runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving watercourse, plans are to include measures to control the velocity and the rate of release at the point of discharge so as to minimize accelerated erosion of the site and increased sedimentation of the stream.

(Ord. No. 93-2-22/O-1, § 7)

Sec. 5-87. Mandatory design and performance standards for land-disturbing activity.

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

(1) *Buffer zone.*

- a. Unless otherwise provided, the width of a buffer zone is measured from the edge of the water to the nearest edge of the disturbed area, with the twenty-five (25) percent of the strip nearer the land-disturbing activity containing the natural or artificial means of confining visible siltation.

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 (25) per cent of the buffer zone nearest the land-disturbing activity. Waters that have been classified as trout waters by the environmental management commission shall have an undisturbed buffer zone twenty-five (25) feet wide or of sufficient width to confine visible siltation

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within the twenty-five (25) per cent of the buffer zone nearest the land-disturbing activity, whichever is greater. Provided, however, that the town 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. 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. The twenty-five (25) foot minimum width for an undisturbed buffer zone adjacent to designated trout waters shall be measured horizontally from the top of the bank.
 - c. Where a temporary and minimal disturbance is permitted as an exception by subsection 1. hereinabove, land-disturbing activities in the buffer zone adjacent to designated trout waters shall be limited to a maximum of ten (10) per cent of the total length of the buffer zone within the tract to be distributed such that there is not more than one hundred (100) linear feet of disturbance in each one thousand (1000) linear feet of buffer zone. Larger areas may be disturbed with the written approval of the director of the division of land resources of the department of environment, health, and natural resources.
 - d. No land-disturbing activity shall be undertaken within a buffer zone adjacent to designated trout waters that will cause adverse temperature fluctuations, as set forth in 15 NCAC 2B.0211 "Fresh Surface Water Classification and Standards", in these waters.
- (2) *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 thirty (30) working days of completion of any phase of grading, be planted or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion.

- (3) *Ground cover.* Whenever land-disturbing activity is undertaken on a tract comprising more than twenty thousand (20,000) square feet, if more than twenty thousand (20,000) square feet are uncovered, the person conducting the land-disturbing activity shall install such sedimentation and erosion control devices and practices as 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 subsection 5. hereinbelow, provisions for a ground cover sufficient to restrain erosion must be accomplished within thirty (30) working days or one hundred twenty (120) calendar days, whichever period is shorter, following completion of construction or development.
- (4) *Design and performance of control measures.*
 - a. Except as provided in subsection 2. hereinbelow and in the standard for sediment ponds in the soil erosion and sediment control manual, erosion and sedimentation control measures, structures, and devices shall be so planned, designed, and constructed as to provide protection from accelerated erosion and sedimentation from the calculated maximum peak rates of runoff from the ten-year frequency storm. Runoff rates shall be calculated using the procedures in the USDA Soil Conservation Service's "National Engineering Field Manual for Conservation Prac-

tices", or other calculation procedures acceptable to the erosion control officer.

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

1. Uncovered areas in HQW zones shall be limited at any time to a maximum total area of twenty (20) acres within the boundaries of the tract. Only the portion of the land-disturbing activity within the HQW zone shall be governed by this section. Larger areas may be uncovered within the boundaries of the tract with the written approval of the director of the division of land resources of the department of environment, health, and natural resources.
2. Erosion and sedimentation control measures, structures, and devices within HQW zones shall be so planned, designed, and constructed to provide protection from the runoff of the twenty-five-year storm which produces the maximum peak rate of runoff. The peak rate of runoff shall be 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. Sediment ponds (also called "sediment basins") with HQW zones shall be designed and constructed such that the pond will have a settling efficiency of at least seventy (70) per cent for

the forty (40) micron (0.04 mm) size soil particle transported into the basin by the runoff of that two-year storm which produces the maximum peak rate of runoff. The peak rate of runoff shall be 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. Newly constructed open channels in HQW zones shall be designed and constructed with side slopes no steeper than two (2) 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 devices. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.
 5. Ground cover sufficient to restrain erosion must be provided for any portion of a land-disturbing activity in a HQW zone within fifteen (15) working days or sixty (60) calendar days, whichever period is shorter, following completion of construction or development.
- (5) *Prior plan approval.* No person shall initiate any land-disturbing activity on a tract if more than twenty thousand (20,000) square feet are to be uncovered unless, thirty (30) or more days prior to initiating the activity, an erosion and sedimentation control plan for such activity is filed with, approved by, and a grading permit obtained from the county.

(Ord. No. 93-2-22/O-1, § 8)

Sec. 5-88. Stormwater outlet protection.

(a) *Control of velocity.* Persons shall plan and 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 table in paragraph (d) of this subsection; or
- (2) The velocity of the ten-year storm runoff in the receiving watercourse prior to development.

If conditions (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 ten (10) per cent.

(b) *Acceptable management measures.* Measures applied alone or in combination to satisfy the intent of this subchapter are acceptable if there are no objectionable secondary consequences. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives are to:

- (1) Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from area rendered impervious;
- (2) Avoid increases in stormwater discharge velocities by using vegetated or roughened swales and waterways in lieu 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; these may range from simple rip-rapped sections to complex structures;
- (4) Protect watercourses subject to accelerated erosion by improving cross-sections and/or providing erosion resistant lining.

(c) *Exceptions.* This rule shall not apply in areas where it can be demonstrated that stormwater discharge velocities will not create an erosion problem in the receiving watercourse.

(d) The following is a table of permissible velocity for stormwater discharges:

<i>Material</i>	<i>Maximum Permissible Velocities</i>	
	<i>(f.p.s.)</i>	<i>(m.p.s.)</i>
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
Shale 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 channels, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels. (Ord. No. 93-2-22/O-1, § 9)

Sec. 5-89. Borrow and waste areas.

When the person conducting the land-disturbing activity is also the person conducting the borrow and 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 solid 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. (Ord. No. 93-2-22/O-1, § 9)

**Sec. 5-90. 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. 93-2-22/O-1, § 11)

Sec. 5-91. Operations in lakes or other natural watercourses.

Land-disturbing activity in connection with construction in, on, over or under a lake or natural watercourse shall be planned and conducted in such a manner as to minimize the extent and duration of disturbance of the stream channel. The relocation of a stream, where relocation is an essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics except when justification for significant alteration to flow characteristics is provided. Every effort shall be made to maintain buffer zones consisting of existing vegetation between the land-disturbing activity and the watercourse.

(Ord. No. 93-2-22/O-1, § 12)

Sec. 5-92. Responsibility for installation and maintenance.

During the development of a site, the person engaged in or conducting the land-disturbing activity shall be responsible for installing and maintaining all temporary and permanent erosion and sedimentation control measures and facilities as required by the approved or revised erosion control plan, any provision of this division, the Act, or any order adopted pursuant to this division or the Act. The responsibility for installing and maintaining permanent erosion and sedimentation control measures and facilities after completion of the site development shall lie with the land owner or person in possession or control of the land except facilities and measures installed within road or street rights-of-way or easements accepted for maintenance by a government agency.

(Ord. No. 93-2-22/O-1, § 13)

Sec. 5-93. Off-site facilities

The erosion control officer may allow stormwater runoff that is discharged in volumes or at rates in

excess of those otherwise allowed by this division to be discharged into drainage facilities off the site of development if the off-site facilities and the channels leading to them are designed, constructed, and maintained in accordance with the standards of this division. Adequate provision must be made for the sharing of the construction and maintenance expenses of the facilities. A request to use off-site drainage facilities and all information related to the proposed off-site facilities should be made part of the developer's erosion and sedimentation control plan.

(Ord. No. 93-2-22/O-1, § 13.1)

Sec. 5-94. Additional measures.

Whenever the erosion control officer determines that significant sedimentation is occurring as a result of land-disturbing activity, despite application and maintenance of protection practices, the person conducting the land-disturbing activity or the person responsible for maintenance will be required to take additional protective action.

(Ord. No. 93-2-22/O-1, § 14)

Sec. 5-95. Existing uncovered areas.

(a) All uncovered areas existing on the effective date of this division which: (1) resulted from land-disturbing activities not excluded under section 5-84, and (2) if such areas are outside the University Lake Watershed and exceed twenty thousand (20,000) square feet, and (3) are subject to continued accelerated erosion, and (4) 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) *Notice of violation.* The erosion control officer will serve upon the landowner or other person in possession or control of the land written notice of violation by registered or certified mail, return receipt requested, or other means reasonably calculated to give actual notice. 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 for compliance.

(c) The erosion control officer reserves the right to require preparation and approval of an erosion control plan in any instance wherein extensive control measures are required.

(d) This rule shall not require ground cover on cleared land forming the future basin of a planned reservoir unless the disturbance and length of time of the exposure prior to the filling of the reservoir will result in erosion and sedimentation of the downstream channel.
(Ord. No. 93-2-22/O-1, § 15)

Sec. 5-96. Erosion control officer.

The Orange County Erosion Control Officer will be responsible for carrying out the provisions of this division, unless the town appoints, employs or contracts with another qualified person(s) to perform such responsibilities.
(Ord. No. 93-2-22/O-1, § 16)

Sec. 5-97. Permits.

(a) No person shall undertake any land-disturbing activity which would require the uncovering of twenty thousand (20,000) square feet or of land without first obtaining the required approvals and permits from the erosion control officer. Permit application forms must be signed by the landowner or his authorized agent. The agent signing must have a signed letter of authorization from the owner.

No permit is required for the following activities:

- (1) For the purpose of fighting fires.
- (2) For the stockpiling of raw or processed sand, stone, or gravel in material processing plants and storage yards, provided that sediment control measures have been utilized to protect against off-site damage.
- (3) For disturbances that do not exceed twenty thousand (20,000) square feet in surface

area. In determining the area, lands under one or diverse ownership being developed as a unit will be aggregated.

(b) *Erosion control plan approvals.* An erosion control plan must be submitted to the erosion control officer when the proposed land disturbance is greater than twenty thousand (20,000) square feet.

(c) Before starting a land-disturbing activity greater than twenty thousand (20,000) square feet, the owner or his agent shall obtain a grading permit from the erosion control officer. Erosion control plans must be approved before a grading permit will be issued. Grading permits may be obtained when the plan or waiver is approved or prior to the start of the land disturbance.

(d) *Expiration of permits.* Erosion control plan approvals expire one year after the approval date unless the land disturbance is started as defined below. A grading permit must be obtained before beginning the disturbance and may be obtained at any time as long as the plan approval is valid. Grading permits expire with the expiration of the plan approval unless the disturbance is begun. Once the disturbance begins, a grading permit is valid for a period of two (2) years starting with the commencement of the disturbance, as defined below. The grading permit must be renewed if the disturbance continues more than two (2) years. The renewal fee is one half the original fee and is valid for one year.

For the purpose of determining the expiration date of the plan approval and grading permit, the land-disturbing activity is considered to have started when the preconstruction conference has been held, the necessary erosion control practices have been properly installed, and the site clearing or grading has begun.

(e) Orange County may establish such fees as considered necessary to defray costs of administering this division on behalf of the town.

(f) Pursuant to G.S. Section 160A-417, no building permit shall be issued unless an erosion control plan has been approved, where such approval is required, for the site of the activity or a tract including the site of the activity.

(g) Whenever a person conducting a land-disturbing activity is not complying with the provisions of this division, the grading permit, the approved erosion control plan or any amendments to the plan, the erosion control officer may revoke the grading permit for the site. Notice of revocation shall be sent by registered or certified mail to the person conducting the land-disturbing activity. In the event delivery cannot be accomplished by registered or certified mail, it may be accomplished in any manner provided in Rule 4(j) of the North Carolina Rules of Civil Procedure. Upon receipt of the revocation notice, the person responsible must immediately order all land-disturbing activities to cease except those which are specifically directed towards bringing the site into compliance. Once the site has been inspected and remedial work approved by the erosion control officer, the responsible party may reapply for a grading permit and pay the appropriate fee. Resumption of land-disturbing activities other than those necessary to bring the site back into compliance before the reissuance of the grading permit will constitute a violation of the ordinance. The person conducting the land-disturbing activity may appeal the revocation of a grading permit following procedures set out in section 5-102(f) of this division.

(Ord. No. 93-2-22/O-1, § 17; Ord. No. 2001-08-27/O-3, § 1)

Sec. 5-97.1. Bonds.

All parties engaged in land-disturbing activities on a tract comprising more than one (1) acre, if more than one acre is uncovered, shall provide a performance bond or other financial guarantee as appropriate, in an amount satisfactory to the town manager, to cover the restoration of failed or failing soil erosion and sedimentation control measures and/or of areas affected by the failure to control soil erosion and sedimentation generated by the land-disturbing activities and as required by the approved soil erosion and sedimentation control plan.

(Ord. No. 2000-01-10/O-1, § 4)

Sec. 5-98. Erosion and sedimentation control plans.

(a) *Plan requirement.* An erosion control plan shall be prepared for all land-disturbing activities subject to this division whenever the proposed

activity is to be undertaken on a tract comprising more than twenty thousand (20,000) square feet, if more than twenty thousand (20,000) square feet are to be uncovered. Three (3) copies of the plan shall be filed with the erosion control officer, one of which will be forwarded to the Orange or Durham County (as applicable) soil and water conservation district, at least thirty (30) days prior to the commencement of the proposed activity.

(b) The Orange or Durham County Soil and Water Conservation District, within twenty (20) days of receipt of any plan, or within such additional time as may be prescribed by the Chapel Hill Town Council, or such other body or officer designated by the council, shall review such plan and submit its comments and recommendations to the erosion control officer. Failure of the district to submit its comments and recommendations to the erosion control officer within the prescribed time will not delay final action on the plan.

(c) *Review and response to plans.* The erosion control officer will review each complete plan submitted and within thirty (30) days of receipt thereof will notify the person submitting the plan that it has been approved, approved with modifications, approved with conditions, approved with performance reservations, or disapproved. Examples of conditions of approval are, but are not limited to: channel stabilization must be successful or another type of lining must be used; delineating certain areas to be graded and stabilized within a specified number of days to reduce the potential for erosion and protect critical areas; providing a performance security to provide permanent ground cover; and requiring the person financially responsible to retain the services of a professional engineer or architect to supervise implementation of the approved erosion control plan.

Failure to approve or disapprove a complete erosion and sedimentation control plan within thirty (30) days of receipt of the complete plan shall be deemed approval. Denial of a plan must specifically state in writing the reasons for denial. The county must approve or deny a revised plan within fifteen (15) days of receipt, or it is deemed

to be approved. 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 division, the county may require such revisions as are necessary to comply with this division.

When the person or firm submitting the plan fails to respond to comments or correspondence from the erosion control division staff with either revised plans or written correspondence within ninety (90) days, the division will assume that the application will give warning in writing to the person or firm submitting the plan before terminating the review. Plan review fees are not refundable when an application is abandoned.

In order to be considered complete, a plan submitted for approval must contain the proposed erosion control plan, the completed application, the statement of financial responsibility and ownership, and the plan review fee. The thirty-day review period begins when all of the components of the complete plan are received.

(d) The plan required by this section shall contain such architectural and engineering drawings, maps, assumptions, calculations, and narrative statements as are needed to adequately describe the proposed development of the tract and the measures planned to comply with the requirements of this division. The plan shall comply with all applicable state and local regulations for erosion and sediment control. Plan content may vary to meet the needs of specific site requirements.

(e) *Plan amendments.* Application for amendment of an erosion control plan in written and/or graphic form may be made at any time under the same conditions as the original application. Until such time as said amendment is approved by the erosion control officer, the land-disturbing activities shall not proceed except in accordance with the erosion control plan as originally approved. After approving the plan, if the erosion control officer, 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, revisions to the plan will be required. Pending the preparation of the revised plan, work shall cease or shall continue under conditions outlined by the erosion control officer.

(f) *Statement of ownership and financial responsibility.* Erosion control plans may be disapproved unless accompanied by an authorized "Statement of Ownership and Financial Responsibility". This statement shall be signed by the person financially responsible for the land-disturbing activity or his/her attorney in fact. The statement shall include the mailing and street addresses of the principal place of business of the person financially responsible and of the owner of the land or their registered agents. If not a resident of North Carolina, the applicant must designate a North Carolina agent and include that agent's name and address in the statement for the purpose of receiving notice of compliance or noncompliance with the plan, the Act, this division, or rules or orders adopted or issued pursuant to this division.

(g) *Review of other environmental documents.* Any plan submitted for a land-disturbing activity for which an environmental document (either an assessment or impact statement) is required by the North Carolina Environmental Policy Act (G.S. 113A-1, et seq.) shall be deemed incomplete until a complete environmental document is available for review. The town shall promptly notify the person submitted the plan that the thirty-day time limit for review of the plan pursuant to section 5-99(c) of this division shall not begin until a complete environmental document is available for review.

(h) *Consideration of applicant's past performance.* An erosion control plan may be disapproved upon a finding that an applicant, or any parent or subsidiary corporation if the applicant is a corporation:

- (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 which is due and for which no appeal is pending;

- (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 (h), an applicant's record may be considered for only the two (2) years prior to the application date.

(i) *Erosion control plan available on site.* A copy of the approved erosion control plan and any amendments and required revisions shall be kept on the job site at all times.
(Ord. No. 93-2-22/O-1, § 18)

Sec. 5-99. Erosion control standards.

(a) Requirements, standards, and specification for erosion control plans and erosion control techniques, measures, and devices are contained in the "Orange County Soil Erosion and Sediment Control Manual." Copies of the manual are available from the erosion control division of the Orange County Planning Department.

(b) Corrections, revisions, and amendments to the soil erosion and sediment control manual shall be made upon recommendation of the erosion control officer and approval by the Orange County Board of Commissioners.

(c) Nothing in this section shall be construed to allow approval of a plan which is inconsistent with the mandatory standards set forth in section 5-87 of this division or any other provision of this division.
(Ord. No. 93-2-22/O-1, § 18)

Sec. 5-100. Appeals.

The appeal of a disapproval or approval with modifications or conditions of approval of a plan shall be governed by the following provisions:

- (1) The disapproval of, modification of, or conditions of approval attached to any proposed soil erosion and sedimentation control plan by the erosion control officer

shall entitle the person submitting the plan to an appeal of the decision to the town manager.

- (2) In the event that the manager upholds the disapproval, modification or conditions of approval of a proposed, soil erosion and sedimentation control plan, the person submitting the plan shall be entitled to appeal the manager's action to the North Carolina Sedimentation Control Commission as provided in Section 113A-61(c) of the General Statutes and Title 15A NCAC 4B.0018(d).

- (3) Appeal of soil erosion and sedimentation control plan disapproval based on applicant's past performance. In the event that a soil erosion and sedimentation control plan is disapproved pursuant to section 5-98(h) of this chapter, the town manager shall notify the director of the division of land resources of such disapproval within ten days of written notice to the applicant of the disapproval of the plan. The town manager shall advise the applicant and the director of the division of land resources in writing as to the specific reasons that the plan was disapproved. The applicant may appeal the town manager's disapproval of the plan pursuant to section 5-98(h) of this chapter directly to the commission.

(Ord. No. 93-2-22/O-1, § 19; Ord. No. 2000-01-10/O-1, § 1)

Sec. 5-101. Compliance with plan requirements.

Any person engaged in land-disturbing activities who fails to file a plan in accordance with this division, or who conducts a land-disturbing activity except in accordance with provisions of an approved plan shall be deemed in violation of this division.

(Ord. No. 93-2-22/O-1, § 20)

Sec. 5-102. Inspections and investigations.

(a) *Site inspections.* Agents, officials, or other qualified persons authorized by the town will periodically inspect the sites of land-disturbing activity to determine:

- (1) Compliance with the Act, this division, or rules or orders adopted or issued pursuant to this division;
- (2) Whether the activity is being conducted in accordance with an approved plan; and
- (3) Whether the measures required in the plan are effective in controlling erosion and sediment resulting from land-disturbing activity; and
- (4) Whether restoration measures are necessary due to the failure to control erosion and/or sedimentation.

Notice of the right to inspect shall be included in the notification of plan approval.

(b) *Notice of violation.* If, through inspection, it is determined that a person engaged in land-disturbing activity has failed to comply with the Act, this division, or rules or orders adopted or issued pursuant to this division, or has failed to comply with the approved plan, a notice of violation shall be served upon that person by registered or certified mail, return receipt requested, or other means reasonably calculated to give actual notice. The notice shall set forth the measures necessary to achieve compliance with the plan, 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 the assessment of a civil penalty or other enforcement action. However, no time period for compliance need be given for failure to submit an erosion control plan for approval, or for obstructing, hampering, or interfering with an authorized representative while in the process of carrying out their official duties. If the person engaged in land-disturbing activity fails to comply within the time specified, enforcement action shall be initiated.

In the event service cannot be accomplished by registered or certified mail, it may be accomplished in any manner provided in rule (4j) of the North Carolina Rules of Civil Procedure.

(c) The town manager or his designee shall have the power to conduct such investigations as he may reasonably deem necessary to carry out his 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 and inspecting the sites of any land-disturbing activities. No person shall refuse entry or access to any authorized representative or agent of the town who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper or interfere with any such representative while in the process of carrying out his official duties.

(d) The town manager or his designee shall have the power to require written statements, or the filing of reports under oath, with respect to pertinent questions relating to land-disturbing activities.

(e) The town manager or his designee shall have the power to revoke grading permits issued by the erosion control division as provided for under section 5-97(c) of this chapter.

(f) Whenever any person is violating this chapter or any rule or order adopted or issued pursuant to this chapter, or any term, condition, or provisions of any approved erosion control plan, the town manager or his designee may, either before or after the institution of any action or proceeding authorization by this chapter, issue a stop work order for the site on which the violation has occurred. Upon issuance of such an order and the posting of same on the site of the violation, all work on the site of the violation shall cease, except those activities necessary to bring the site into compliance with this chapter. Notice of the stop work order shall be in writing, directed to the person conducting the land-disturbing activity and shall state the reasons for issuance of the order, and the conditions under which work may be resumed. Notice shall be given by registered or certified mail.

In the event service cannot be accomplished by registered or certified mail, it may be accomplished in any manner provided in rule 4(j) of the North Carolina Rules of Civil Procedure.

The person conducting the land-disturbing activity may appeal a notice of violation or stop work order to the town board of adjustment within a period of thirty (30) days after the order is issued. Application for appeal shall be given in writing to the town board of adjustment, with a copy to the town manager or his designee. The town board of adjustment shall conduct a hearing at its next scheduled meeting, at which the appellant and the town manager or his designee shall be permitted to submit relevant evidence, and shall rule on the appeal as expeditiously as possible. Pending the ruling by the town board of adjustment on an appeal, no further work shall take place in violation of a stop work order.

(g) Applications for appeal shall be filed with the town manager and the town manager shall prescribe the form(s) on which applications are to be made, as well as any other material which may reasonably be required to make the determinations called for in the particular case, with sufficient copies for necessary referrals and records.

No application shall be accepted by the town manager unless it complies with such requirements. Applications which are not complete shall be returned forthwith to the applicant, with a notation of the deficiencies in the application.

On receipt of a complete application, the town manager shall transmit the application to the board of adjustment. In the case of applications for appeal, the town manager shall also transmit to the board all documents constituting the record on which the decision being appealed was based.

(h) After its receipt of an application for appeal, the board of adjustment shall hold a public hearing on the application at its next available regularly scheduled meeting.

Notice of the date, time, and place of the public hearing shall be published in a newspaper of general circulation in the planning jurisdiction once a week for two (2) successive weeks, with the first notice to be published not less than ten (10) nor more than twenty-five (25) days prior to the date of the hearing.

The public hearing shall be open to the public and all interested persons shall be given the opportunity to present evidence and arguments

and to ask questions of persons who testify. The board may place reasonable and equitable time limitations on the presentation of evidence and arguments and the cross examination of witnesses so that the application may be heard without undue delay. All persons who intend to present evidence at the public hearing shall be sworn.

A record of the proceedings of the hearing shall be made and shall include all documentary evidence presented at the hearing.

(i) After completion of the public hearing, the board of adjustment shall take action on the application.

In the case of applications for appeal, such action shall be to reverse, or affirm (wholly or partly), or modify the decision being appealed.

In every case, the record of the action of the board shall include a summary of its findings and the evidence supporting them.

(j) The town manager shall notify the applicant of the board's decision in writing within ten (10) days of the rendering of the board's decision and shall file a copy of it with the town's planning department.

(k) A decision of the board of adjustment on an application for appeal may be appealed to the superior court by an aggrieved party. Such appeal shall be in the nature of certiorari and must be filed within thirty (30) days of the filing of the board's decision in the town's planning department or the delivery of notice of the board's decision to the applicant.

(Ord. No. 93-2-22/O-1, § 21; Ord. No. 2000-01-10/O-1, § 2)

Sec. 5-103. Penalties.

(a) *Civil penalties.*

(1) *Assessment of penalties.* Any person who violates any of the provisions of this division or rules or orders adopted or issued pursuant to this division, or who initiates or continues a land-disturbing activity for which an erosion control plan is required except in accordance with the terms, conditions, and provisions of an approved

plan, shall be subject to a civil penalty of five thousand dollars (\$5,000.00) except that the penalty for failure to submit an erosion control plan shall be as provided in subparagraph (3) of this section. No penalty shall be assessed until the person alleged to be in violation has been notified of the violation has been notified of the violation by registered or certified mail, return receipt requested, or other means reasonably calculated to provide actual notice to the offender. The notice shall describe the violation with reasonable particularity, specify a reasonable time period within which the violation must be corrected. And warn that failure to correct the violation must be corrected, and warn that failure to correct the violation within the time period will result in the assessment of a civil penalty or other enforcement action. If, after the allotted time period has expired, the violator has not completed corrective action, a civil penalty may be assessed from the date of receipt of the notice of violation. However, no time period for compliance need to be given for failure to submit an erosion control plan for approval or for obstructing, hampering or interfering with an authorized representative while in the process of carrying out his official duties. Each day of a continuing violation shall constitute a separate violation under this subparagraph.

- (2) *Demand for payment of penalty.* The town manager shall make written demand for payment upon the person responsible for the violation, and shall set forth in detail a description of the violation for which the penalty has been invoked. Notice of the assessment shall be by registered or certified mail or other means reasonably calculated to give actual notice. If payment is not received or equitable settlement reached within thirty (30) days after demand for payment is made, the matter shall be referred to the town or county attorney for institution of a civil action in the name of the town or county in the appropriate division of the general courts

of justice for recovery of the penalty. Such civil actions must be filed within three (3) years of the date the final decision was served on the violator.

- (3) Any person who fails to submit an erosion control plan for approval pursuant to this division shall be subject to a single, noncontinuing civil penalty of one thousand dollars (\$1,000.00). Any person who is subject to a civil penalty under this subdivision may be subject to additional civil penalties for any violation of any other provision of this division or any rule or order adopted or issued pursuant to this division by the Town of Chapel Hill.
- (4) Civil penalties collected pursuant to this division shall be used or disbursed as directed by G.S. 13A-64(a).

(b) *Criminal penalties.* Any person who knowingly or willingly violates any provision of this division or rule or order adopted or issued pursuant to this division, or who knowingly or willfully initiates or continues a land-disturbing activity for which an erosion control plan is required except in accordance with the terms, conditions, and provisions of an approved plan shall be guilty of a misdemeanor punishable by imprisonment not to exceed ninety (90) days or by a fine not to exceed five thousand dollars (\$5,000.00), or by both, at the discretion of the court. (Ord. No. 93-2-22/O-1, § 22; Ord. No. 2000-01-10/O-1, § 3)

Sec. 5-104. Injunctive relief.

(a) Whenever the governing body of the town or county has reasonable cause to believe that any person is violating or threatening to violate this division or any rule or order adopted or issued pursuant to this division, or any term, condition, or provision of an approved institution of any other action or proceeding authorized by this division, institute a civil action in the name if the town or county for injunctive relief to restrain the violation. The action shall be brought in the Superior Court of Orange County or Durham County, as applicable.

(b) Upon determination by a court that an alleged violation is occurring or is threatened, it shall enter such orders or judgements as are necessary to abate the violation or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violations of this division.

(Ord. No. 93-2-22/O-1, § 23)

Sec. 5-104.1 Restoration of area affected by failure to comply with town soil erosion and sedimentation regulations.

All parties engaged in land-disturbing activity on a tract comprising more than one (1) acre, if more than one (1) acre is uncovered, and fails to retain sediment generated by the activity, as required by the approved soil erosion and sedimentation control plan, shall restore the waters and/or land affected by the failure so as to minimize the detrimental effects of the resulting pollution by sedimentation. The institution of an action to restore areas affected by failure to comply shall not relieve any party to such action from any civil or criminal penalty prescribed for violation of this chapter.

(Ord. No. 2000-01-10/O-1, § 5)

Sec. 5-105. Severability.

If any open or more sections or portions thereof of this division are held to be invalid or unenforceable, all other sections and portions thereof shall nevertheless continue in full force and effect.

(Ord. No. 93-2-22/O-1, § 24)

Sec. 5-106. Effective date.

This division will become effective upon adoption by the Council of Chapel Hill and the approval of the North Carolina Sedimentation Control Commission.

Explanatory note: The Soil Erosion and Sedimentation Control Ordinance was originally adopted by the council on September 22, 1986.

(Ord. No. 93-2-22/O-1, § 25)

ARTICLE VI. RESERVED*

Secs. 5-107—5-120. Reserved.

ARTICLE VII. ENERGY CONSERVATION IN DESIGN AND CONSTRUCTION OF NEW AND RENOVATED TOWN BUILDINGS

Sec. 5-121. Intent.

It is the intent of the Council to comply with the applicable provisions of G.S. Chapter 143, Article 3B, Energy Conservation In Public Facilities; and to ensure that buildings built or substantially renovated by the Town of Chapel Hill are built in the most environmentally sound way.

The Comprehensive Plan for the Town of Chapel Hill says that, "The Town shall encourage site planning, landscaping, and structure design which maximizes the potential for energy conservation by reducing the demand for artificial heating, cooling, ventilation and lighting, and facilitating the use of solar and other energy resources."

It is the intent of the Council to provide the citizens and employees of the Town of Chapel Hill with new and renovated buildings which will give the optimum comfort, ensure the durability of investments for the taxpayer, consider the health of building occupants and provide the greatest awareness possible of the environmental impacts of what we do.

(Ord. No. 97-5-12/O-4, 5-12-97)

Sec. 5-122. Energy conservation goals in building design.

Any buildings built with Town funds shall be designed to achieve a goal of using at least 30 per cent less energy than required by the North Carolina State Building Codes in effect as of February 1, 1997, as long as the estimated energy savings exceed the marginal cost of the energy saving features over the expected life of the building and subject to fiscal constraints established

*Editor's note—Ord. No. O-81-54, adopted Sept. 14, 1981, deleted Art. VI, § 5-80, concerning construction permits for improvements, deriving from Ord. No. O-80-41, adopted June 16, 1980.

by the Council. In order to avoid increased cost of operation, care shall be taken to avoid complex systems that would require extensive technical training of personnel. Acceptable methods for energy use analysis can be found in Energy Efficient County Facilities For Wake County. A copy of this document is on file and available for loan from the Internal Services Division, Chapel Hill Public Works Department.
(Ord. No. 97-5-12/O-4, 5-12-97)

Sec. 5-123. Qualification of architects.

In order to be selected to design a Town building, an architect has to demonstrate that the architectural firm has previously designed a building using some or all of the techniques listed herein. The architect chosen for any building must incorporate the conditions of this article in the building design or show justification why not.

To help ensure compliance with this article, at least one (1) member of each architectural selection review panel shall be a recognized energy professional. The Citizens' Energy Task Force shall maintain a list, updated annually, of qualified volunteer energy professionals including of brief summary of their qualifications and experience. For projects where the estimated cost of architectural and engineering services is less than \$30,000, the manager is authorized to select a panel member from the list. For projects where the estimated cost of architectural and engineering services is \$30,000 or more, the Manager shall solicit a nomination from the Citizen's Energy Task Force to identify the selection panel member.

The forgoing section does not apply to the selection of architects for the 2001 major renovation of the Hargraves Center and the AD Clark Pool.
(Ord. No. 97-5-12/O-4, 5-12-97; Ord. No. 2001-04-23/O-1, § 1)

Sec. 5-124. Energy performance monitoring and reporting.

For major construction projects or substantial renovations of existing buildings (construction costs of \$200,000 or more and/or architectural fees of \$30,000 or more) the Town shall require

either the architect or the staff project manager to monitor the energy performance of the building and assist the staff in optimizing energy use of the building during the first year.

Twelve (12) months after completion of the project, the architect shall be required to prepare a written report on the performance of the building in relation to the requirements of this article and to present their report to the Council at a regularly scheduled business meeting. The Town Manager may either require these services of the architect or assign similar responsibilities to the staff project manager.

The Town Manager's annual report to Council will include a section reporting the energy consumption performance of each Town building.
(Ord. No. 97-5-12/O-4, 5-12-97)

Sec. 5-125. Use of energy efficient technologies in town buildings.

Energy saving features, including but not limited to the following, shall be considered for new Town buildings and major renovations of existing buildings. Design documents shall include an explanation of how the features listed below are incorporated into the design or, for those features not incorporated, an explanation of the financial or operational reasons why the feature was omitted from the design.

- (a) Solar orientation, with the long axis facing south;
- (b) Use of daylighting;
- (c) Use of appropriate glass for minimizing heating and cooling loads;
- (d) Insulation beyond minimum standards;
- (e) Use of renewable energy for heating and cooling;
- (f) Use of renewable energy for heating and swimming pools;
- (g) Use of water conservation measures including dual water systems if available;
- (h) Landscaping for summer cooling effect and for blocking winter winds;
- (i) Use of energy efficient motors;