Sec. 12.10
Sedimentation and Erosion Control

Paragraphs:

12.10.1 Purposes

A. This Section is adopted for the purposes of:

1. Regulating private, non-exempt 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

2. Establishing procedures through which these purposes can be fulfilled.

B. No person shall undertake any land-disturbing activity without first obtaining a permit from the Sedimentation and Erosion Control Officer or designee as required by this section.

12.10.2 Applicability

A. Exemptions

The following activities do not require a permit under this section:

1. Land-disturbing activities for the purpose of fighting fires;

2. Land-disturbing activities that are less than 12,000 square feet in surface area. In determining the area, lands under one or diverse ownership being developed as a unit will be aggregated. Notwithstanding this provision, an erosion control plan and/or permit may be required by the Sedimentation and Erosion Control Officer or designee when off-site damage is occurring, or if the potential for off-site damage exists. Additionally, this section may apply when the applicant, or a parent, subsidiary, or other affiliate of the applicant has engaged in any activity enumerated in paragraph 3.8.7, Disapproval of Plan;

3. Agricultural Exemption

A, As set forth in NCGS § 113A-52.01, land-disturbing activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including but not limited to:

1. ~~**a.**~~ Forage and sod crops, grain and feed crops, tobacco, cotton and peanuts;
2. ~~**b.**~~ Dairy animals and dairy products;
3. ~~**c.**~~ Poultry and poultry products;
4. ~~**d.**~~ Livestock, including beef cattle, llamas, sheep, swine, horses, ponies, mules or goats, including the breeding and grazing of any or all such animals;
5. ~~**e.**~~ Bees and apiary products;
6. ~~**f.**~~ Fur producing animals; and

7. ~~g.~~ Mulch, ornamental plants, and other horticultural products. For purposes of this section, "mulch" means substances composed primarily of plant remains or mixtures of such substances.~~;~~

B. In order for a land-disturbing activity to be eligible for an agricultural exemption, it must be reasonably demonstrated to the county that the land on which the disturbance is taking place is intended for continuous agricultural use. Reasonable demonstration may be documented by any of the following:

1. A farm plan registered with the County Soil and Water Conservation District for ongoing uses;
2. A farm number obtained from the state cooperative extension;
3. Documentation of revenue of not less than $1,000/year resulting from an agricultural activity;
4. Documentation from the county tax office of agricultural status.
5. Any other such documentation which meets County approval as to demonstrate continuous agricultural use.

C. The county may require preparation and approval of an erosion and sedimentation control plan for land-disturbing activities applying for an application for exemption where sediment control measures are needed to protect against off-site damages due to sediment from the land-disturbing activity as documented by the county staff.

4. Land-disturbing activities undertaken on forest land for the production and harvesting of timber and timber products and which are conducted in accordance with best management practices set out in Forest Practice Guidelines Related to Water Quality, as adopted by the North Carolina Department of Agriculture and Consumer Services. 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 Article shall apply to such activity and any related land-disturbing activity;

5. Land-disturbing activities undertaken by persons as defined in NCGS § 113A-52(8) who are otherwise regulated by the provisions of the Mining Act of 1971, NCGS § 74-46 – 74-68;

6. Land-disturbing activities over which the state has exclusive regulatory jurisdiction as provided in NCGS § 113A-56(a);

7. Land-disturbing activities undertaken for the duration of an emergency, activities essential to protect human life;

8. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of the Clean Water Act; and

9. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations Sec. 12.2 (January 1, 2014 Edition).

B. Plan Required

Subject to the exemptions listed in subsection 12.10.2, a sedimentation and erosion control plan shall be required for any land-disturbing activity within the County, including the City, if more than 20,000 aggregate square feet will be disturbed, or if 12,000 or more aggregate square feet will be disturbed in a M/LR-A, M/LR-B, F/J-A, or E-A watershed protection overlay district. The Sedimentation and Erosion Control Officer or designee may also require a plan for any land-disturbing activity if it determines that off-site damage is occurring or the potential for off-site damage exists. A plan may also be required when the applicant, or a parent, subsidiary, or other affiliate of the applicant, has engaged in any activity listed in paragraph 3.8.7, Disapproval of Plan.

	Less than 12,000 s.f.	12,000 s.f. to 20,000 s.f.	More than 20,000 s.f.
Plan	MR	MR(*R)	R
Permit	MR	R	R

MR – May be required when off-site damage is occurring, the potential for off-site damage exists, or if the applicant or a parent, subsidiary, or other affiliate of the applicant has engaged in any activity enumerated in paragraph 3.8.7, Disapproval of Plan.

R – Required.

*R – Required in a Lake Michie/Little River Critical Area (M/LR-A), Lake Michie/Little River Protected Area (M/LR-B), Falls/Jordan Critical Area (F/J-A) and Eno River Critical Area (E-A).

C. Protection of Property

Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity.

D. More Restrictive Rules Shall Apply

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

12.10.3 Basic Control Objectives

In order for a sedimentation and erosion control plan to be approved, the following control objectives shall be met:

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 activity is to be planned and conducted to limit exposure to the shortest feasible time;

C. Limit Exposed Areas

All land-disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time;

D. Control Surface Water

Surface water runoff originating upgrade of exposed areas shall 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 restrain off-site sedimentation damage; and

F. Manage Stormwater Runoff

When the increase in the velocity of stormwater runoff resulting from a land-disturbing activity is sufficient to cause accelerated erosion of the receiving watercourse, plans are to include measures to control the velocity at the point of discharge so as to minimize accelerated erosion of the site and increased sedimentation of the stream.

12.10.4 Mandatory Standards for Land-Disturbing Activity

No land-disturbing activity shall occur except in accordance with the mandatory standards listed below. Except where more stringent standards are specified in this Ordinance, the technical standards and specifications contained in the North Carolina Erosion and Sediment Control Planning and Design Manual shall also apply. In addition, for land-disturbing activities greater than or equal to one acre, requirements within the most recent version of the State of North Carolina General Permit No. NCG010000 shall apply.

A. Buffer Zones

Except where more stringent buffer requirements are specified in Article 8, Environmental Protection, and/or Article 9, Landscaping and Buffering, the following requirements shall apply;

1. 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% of the buffer zone nearest the land-disturbing activity. This subsection shall not apply to a land-disturbing activity in connection with the

construction of facilities to be located on, over or under a lake or natural watercourse; and

2. Unless otherwise provided, the width of a buffer zone is measured from the top of the bank nearest edge of the disturbed area, with the 25% of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

3. Two rows of silt fence shall be placed along all buffer zones.

B. Stabilization of Disturbed Land

The angle for disturbed land shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control devices or structures.

1. Ongoing Activity

a. Ground Cover

Land left exposed shall be planted or otherwise provided with temporary ground cover, devices, or structures sufficient to restrain erosion within the applicable time period after completion of any phase of grading or period of inactivity as follows: seven days for a steep slope; 10 days for a moderate slope; 14 days for land with no slope or inclination. For purposes of this section, a moderate slope means an inclined area, the inclination of which is less than or equal to three units of horizontal distance to one unit of vertical distance; and a steep slope means an inclined area, the inclination of which is greater than three units of horizontal distance to one unit of vertical distance. No other criteria apply.

> **Commentary:** The moderate and steep slope definitions in this section are mandated by State law (S.L. 2009-486) for sedimentation and erosion control purposes. This steep slope definition differs from the steep slope definition under UDO Sec. 8.8, Steep Slope Protection Standards, which is otherwise applicable throughout the UDO.

b. Soil Stockpiles

Soil stockpiles shall be limited to the shorter of 30 feet above existing grade or half the height of adjacent existing mature tree cover. Stockpiles shall be wrapped in

two rows of silt fence, and groundcover shall be planted in accordance with this section. Stockpile slopes shall be 2:1 or flatter.

2. Completed Activity

For any area of land-disturbing activity where grading activities have been completed, temporary or permanent ground cover sufficient to restrain erosion shall be provided as soon as practicable, but in no case later than seven days after completion of grading.

C. Stabilization of Sedimentation and Erosion Control Devices

Whenever land-disturbing activity exceeds 12,000 square feet, 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 such tract, and shall plant or otherwise provide a temporary ground cover sufficient to restrain erosion generated by such devices and practices within seven days.

D. Erosion and sedimentation control measures, structures and devices shall be so planned, designed and constructed as to provide protection from the calculated maximum peak of runoff from the 25-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 calculation procedures acceptable to the Sedimentation and Erosion Control Officer or designee.

E. Each sediment basin or trap in the Suburban or Rural Tier shall have a minimum volume of 3,600 cubic feet per acre of disturbed area and a minimum surface area of 435 square feet per cfs of Q25 (25-year storm) peak inflow. Each sediment basin or trap in the Downtown, Compact Neighborhood, or Urban Tier shall have a minimum volume of 1,800 cubic feet per acre of disturbed area and a minimum surface area of 325 square feet per cfs of Q25 peak inflow. A skimmer shall be used in each sediment basin or trap. If the temporary sediment basin or trap is to be converted to a permanent stormwater control measure and the volume is greater than that of the temporary basin, the larger of the two shall be used, unless approved in writing by the Durham County Erosion Control Office.

F. Sediment basins and traps shall be designed and constructed such that the basin will have a settling efficiency of at least 70% for the 40-micron (0.04mm) size soil particle transported into the basin by the runoff of that two-year storm that 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 the State or the United States or any generally recognized organization or association.

G. Sediment basins and traps shall not be installed in perennial or intermittent streams.

H. Existing ponds and lakes shall not be used as sediment basins or traps.

I. Developer shall retain control of permitted area, including sediment basins or traps, until permit has been closed. For commercial sites, sold outparcels shall be permitted separately.

J. Newly constructed open channels 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 steeper slopes 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.

K. Additional areas may be added per the criteria enumerated in this section only if the basin or trap is properly installed and maintained.

L. In high quality water (HQW) zones, Lake Michie/Little River Critical Area (M/LR-A), Lake Michie/Little River Protected Area (M/LR-B), Falls/Jordan Critical Area (F/J-A), Eno River Critical Area (E-A), and Third Fork Creek Watershed, uncovered areas shall be limited at any time to a maximum total area of 20 acres. In high quality water (HQW) zones, only the portion of the land-disturbing activity within a HQW zone shall be governed by this section. Larger areas within HQW may be uncovered with the written approval of the Director of DEQ, Division of Energy, Mineral and Land Resources. Larger areas within all other zones may be uncovered with the written approval of the Durham County Erosion Control Office.

M. Triassic Soil Specific Requirements

Triassic soils do not respond as well to conventional erosion control measures as listed within this ordinance and projects with underlying Triassic soils are thus subject to the following additional requirements:

1. Flocculants shall be used onsite in accordance with the requirements of Section 12.10.4N.

2. Sediment basins and traps shall have a minimum volume of 5,400 cubic feet per acre of disturbed area and shall be designed so as to dewater in a minimum of 4 days.

3. Moderate and steep slopes shall be stabilized by either matting or hydroseeding in order to more rapidly provide groundcover.

N. Flocculants

Flocculants are chemicals that can cause fine particles to combine and settle in detained runoff. When used in conjunction with sediment basins or traps, they can reduce turbidity in discharge leaving a site. The use of flocculants, where not required by Section 12.10.4M, is recommended in land disturbing activity. When used, the following requirements apply:

1. A flocculant application plan shall be included on the erosion control plan, including:

   a. Type of Flocculant to be used including manufacturer and supplier

   b. Site-specific dosing systems

   c. Location(s) of flocculant application

   d. Identification of the individual and/or position responsible for dosing and monitoring of flocculant usage

2. Soil samples should be obtained from areas where flocculants will be used, and samples should be screened using jar tests with multiple flocculants to select the appropriate flocculant. Jar testing can be performed by the contractor or flocculant supplier.

3. Only flocculants listed on the NCDENR DWR website as an approved product for use in North Carolina shall be used.

4. Flocculant applied in solid form should be evaluated and re-applied if needed after every rainfall event that is equal to or exceeds 0.5 inches.

5. Flocculants shall not be applied directly to surface waters.

6. Flocculants shall be applied upstream of a sediment basin, trap, or other pooling device such as silt fence.

7. The use of flocculants does not alter the requirements for site stabilization. Sites should be stabilized as soon as possible using conventional methods to minimize the need to use flocculants.

Commentary: Additional information on the use of chemical treatment of construction site stormwater can be found at: https://cals.ncsu.edu/crop-and-soil-sciences/extension/publications/ (scroll down from top to find Erosion, Sediment, and Turbidity Control section)

12.10.5 Permanent Downstream Protection of Stream Banks, Channels and Slopes

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

The land-disturbing activity shall be planned and conducted such that the velocity of stormwater runoff in the receiving watercourse at the point of discharge resulting from a 25-year storm after development shall not exceed the greater of:

1. The velocity specified according to the soil type in the following table, for a point of discharge into a receiving watercourse with bare soil or rock banks or bed;

Materials		Maximum Permissible Velocities	
Name	Description	FPS[1]	MPS[2]

Materials		Maximum Permissible Velocities	
Name	**Description**	**FPS[1]**	**MPS[2]**
Fine Sand (noncolloidal)	Cecil fine sandy loam, Pinkston fine sandy loam	2.5	0.8
Sand Loam (noncolloidal)	Appling sandy loam, Creedmoor sandy loam, Helena sandy loam, Mayodan sandy loam, Wedowee sandy loam, Wilkes sandy loam, White shore sandy loam	2.5	0.8
Silt Loam (noncolloidal)	Georgeville silt loam, Herndon silt loam, Lignum silt loam, Roanoke silt loam	3.0	0.9
Ordinary Firm Loam	Iredell loam, Mecklenburg loam, Wahee loam, Davidson clay loam, White Store clay loam-eroded	3.5	1.1
Fine Gravel		5.0	1.5
Stiff Clay (very colloidal)	Iredell-Urban land complex, White Store-Urban land complex, Mayodan-Urban land complex	5.0	1.5
Graded, Loam to Cobbles (noncolloidal)	Tatum gravelly silt loam, Nason stony silt loam, Goldston slaty (channery) silt loam	5.0	1.5
Graded, Silt to Cobbles (colloidal)		5.5	1.7
Alluvial Silts (noncolloidal)	Wehadkee silt loam, Congaree silt loam, Chewacla silt loam, Cartecay silt loam	3.5	1.1
Alluvial Silts (colloidal)		5.0	1.5
Coarse Gravel (noncolloidal)		6.0	1.8
Cobbles and shingles		5.5	1.7
Shales and Hard Pans		6.0	1.8

1 **FPS:** Feet per second

2 **MPS:** Meters per second

2. The velocity specified according to the type of vegetation and depth of flow in the following table, for a point of discharge into a vegetated receiving watercourse; or

Vegetatively Protected Watercourses and Point of Stormwater Discharge			
Group No.	**Vegetation**	**Depth of Flow (feet)**	**Maximum Permissible Velocity**
1	Bermudagrass	up to 1 greater than 1	4 6
2	Reed canarygrass; Kentucky bluegrass	up to 1 greater than 1	3 6

Vegetatively Protected Watercourses and Point of Stormwater Discharge			
Group No.	**Vegetation**	**Depth of Flow (feet)**	**Maximum Permissible Velocity**
3	Grass and legumes, mixed; Weeping lovegrass	up to 1 greater than 1	3 4
4	Annuals: Annual lespedeza (KOBE); Sudangrass Small grain: (Rye, Oats, barley); Ryegrass	up to 1 greater than 1	2.5 2.5

Notes Do not use vegetative protection on longitudinal parallel to flow slopes steeper than 10% except for side slopes. Annuals: use only as temporary protection until permanent cover is established.

3. The velocity in the receiving watercourse determined for the ten-year storm prior to development.

C. If the conditions enumerated in paragraph B, Performance Standard, of this subsection cannot be met, the channel below the discharge point shall be designed and constructed to withstand the expected velocity.

D. Slope Protection

When soils with slopes as indicated in the following table, occur between a point of stormwater discharge and the next confluence of concentrated stormwater runoff, such areas, on- or off-site, shall be protected from accelerated erosion by diverting the stormwater discharge from those soil surfaces. Diversion may include the provision of piped, paved or armored storm drainage facilities.

Critical Soils of Durham County		
ApC	Appling sandy loam	6-10% slopes
CfC	Cecil fine sandy loam	6-10% slopes
CrC	Creedmoor sandy loam	6-10% slopes
DaD	Davidson clay loam	6-10% slopes
GeC	Georgeville silt loam	6-10% slopes
GeD	Georgeville silt loam	10-15% slopes
GIE	Goldston slaty silt loam	10-25% slopes
GIF	Goldston slaty silt loam	25-45% slopes
GrC	Granville sandy loam	6-10% slopes

Critical Soils of Durham County		
Gu	Gullied land	Clayey materials
HeC	Helena sandy loam	6-10% slopes
HrC	Herndon silt loam	6-10% slopes
HsC	Herndon stony silt loam	2-10% slopes
IrC	Iredell loam	6-10% slopes
IyC	Iredell-Urban land complex	6-10% slopes
MfC	Mayodan sandy loam	6-10% slopes
MfD	Mayodan sandy loam	10-15% slopes
MfE	Mayodan sandy loam	15-25% slopes
MrC	Mayodan-Urban land complex	0-10% slopes
MrD	Mayodan-Urban land complex	10-15% slopes
MuC	Mecklenburg loam	6-10% slopes
NaD	Nason silt loam	10-15% slopes
NaE	Nason silt loam	15-25% slopes
NoD	Nason stony silt loam	10-15% slopes
PfC	Pinkston fine sandy loam	2-10% slopes
PfE	Pinkston fine sandy loam	10-25% slopes
TaE	Tatum gravelly silt loam	15-25% slopes
Ur	Urban land	
WmD	Wedowee sandy loam	10-25% slopes
WmE	Wedowee sandy loam	15-25% slopes
WsC	White Store sandy loam	6-10% slopes
WsE	White Store sandy loam	10-25% slopes
WvC2	White Store clay loam	2-10 % slopes, eroded
WvE2	White Store clay loam	10-25% slopes, eroded
WwC	White Store-Urban land complex	0-10% slopes
WwE	White Store-Urban land complex	10-25% slopes
WxE	Wilkes sandy loam	10-25% slopes

E. 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 State Sedimentation

Control Commission recognizes that the management of stormwater runoff to minimize or control downstream channel and bank erosion is a developing technology. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Some alternatives are to:

1. Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious;

2. Avoid increases in stormwater discharge velocities by using vegetated or roughened swales and waterways in lieu of closed drains and high velocity paved sections;

3. Provide energy dissipaters at outlets of storm drainage facilities to reduce flow velocities at the point of discharge. These may range from simple rip-rapped sections to complex structures; and

4. Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining.

F. Exceptions

This section shall not apply where it can be demonstrated, to the satisfaction of the Sedimentation and Erosion Control Officer or designee that stormwater discharge velocities will not create an erosion problem in the receiving watercourses.

12.10.6 Borrow and Waste Areas

When the person conducting the land-disturbing activity is also the person conducting the borrow or waste disposal activity, areas from which borrow is obtained and which are not regulated by the provisions of the Mining Act of 1971, and waste areas for surplus materials other than landfills regulated by the State Department of Environmental Quality'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. The name and

location of any borrow and/or waste areas shall be provided to the Durham County Erosion Control Office upon request.

12.10.7 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.

12.10.8 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.

12.10.9 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 North Carolina Sedimentation Pollution Control Act of 1973, as amended, and all rules and orders adopted pursuant to it (the Act), this section, rules or orders adopted or issued pursuant to this section or the Act, or an approved sedimentation and erosion control plan. After site development, the land owner or person in possession or control of the land shall install and/or maintain all necessary permanent erosion and sediment control measures, except those measures installed within a road or street right-of-way or easement accepted for maintenance by a governmental agency.

12.10.10 Self-Inspections

Where inspections are required by paragraph 3.8.6, Self-Inspections, the following apply:

A. The person who performs the inspection shall make a record of the site inspection by documenting the following items:

1. All of the erosion and sedimentation control measures, practices and devices, as called for in a construction sequence consistent with the approved erosion and sedimentation control plan, including but not limited to sedimentation control basins, sedimentation traps, sedimentation ponds, rock dams, temporary diversions, temporary slope drains, rock check dams, sediment fence or barriers, all forms of inlet protection, storm drainage facilities, energy dissipaters, and stabilization methods of open channels, have initially been installed and do not significantly deviate (as defined in paragraph 12.10.10A.5) from the locations, dimensions and relative elevations shown on the approved erosion and sedimentation plan. Such documentation shall be accomplished by initialing and dating each measure or practice shown on a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report that lists each measure, practice or device shown on the approved erosion and sedimentation control plan. This documentation is required only upon the initial installation of the erosion and sedimentation control measures, practices and devices as set forth by the approved erosion and sedimentation control plan or if the measures, practices and devices are modified after initial installation;

2. The completion of any phase of grading for all graded slopes and fills shown on the approved erosion and sedimentation control plan, specifically noting the location and condition of the graded slopes and fills. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

3. The location of temporary or permanent ground cover, and that the installation of the ground cover does not significantly deviate (as defined in paragraph 12.10.10A.5) from the approved erosion and sedimentation control plan. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report;

4. That maintenance and repair requirements for all temporary and permanent erosion and sedimentation control measures, practices and devices have been performed. Such documentation shall be accomplished by completing, dating and

signing an inspection report (the general stormwater permit monitoring form may be used to verify the maintenance and repair requirements); and

5. Any significant deviations from the approved erosion and sedimentation control plan, corrective actions required to correct the deviation and completion of the corrective actions. Such documentation shall be accomplished by initialing and dating a copy of the approved erosion and sedimentation control plan or by completing, dating and signing an inspection report. A significant deviation means an omission, alteration or relocation of an erosion or sedimentation control measure that prevents the measure from performing as intended.

B. The documentation, whether on a copy of the approved erosion and sedimentation control plan or an inspection report, shall include the name, address, affiliation, telephone number, and signature of the person conducting the inspection and the date of the inspection. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site. Any inspection reports shall also be made available on the site.

C. The inspection shall be performed during or after each of the following phases of a plan:

1. Installation of perimeter erosion and sediment control measures;

2. Clearing and grubbing of existing ground cover;

3. Completion of any phase of grading of slopes or fills that requires provision of temporary or permanent ground cover pursuant to NCGS § 113A-57(2);

4. Completion of storm drainage facilities;

5. Completion of construction or development; and

6. Quarterly until the establishment of permanent ground cover sufficient to restrain erosion or until the financially responsible party has conveyed ownership or control of the tract of land for which the erosion and sedimentation control plan has been approved and the agency that approved the plan has been notified. If the financially responsible party has conveyed ownership or control of the tract of land for which the

erosion and sedimentation control plan has been approved, the new owner or person in control shall conduct and document inspections quarterly until the establishment of permanent ground cover sufficient to restrain erosion.

12.10.11 Additional Measures

Whenever the Sedimentation and Erosion Control Officer, or designee, determines that significant 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 the additional protective action directed.