

Report to the Environmental Review Commission

Pursuant to S.L. 2014-120, Sec. 29 REFORM AGENCY REVIEW OF ENGINEERING WORK

January 14, 2015

Name of Local Government Unit: *City of Greenville*

Approved/delegated program subject to reporting requirements:

☒ Sedimentation/erosion control

☒ Stormwater

☐ Water/sewer

☐ Cross-connection

☐ 401 certifications

☐ Other *Type program name*

Prepared by: *Lisa Ann Kirby*
Lisa Ann Kirby, PE, Senior Engineer

January 13, 2015

*Submit this report electronically to Mariah Matheson, Commission Assistant,
Environmental Review Commission, at Mariah.Matheson@ncleg.net.*

Name of local government unit: City of Greenville

Please see attached written procedures and sample form letters that may have been developed or where currently in place to implement the provisions of this law.

☒ Check to indicate that this plan review program implemented procedures whereby plan reviewers distinguish between plan changes that are required by statutory or other legal authority and those that the reviewer offers as suggestions for improvement. Refer to S.L. 2014-120, Section 29.(b)(1) for further details about this requirement. ***See Attachment #1 for Sedimentation/Erosion Control and Stormwater form letters.***

☒ Check to indicate that this plan review program identifies the statutory or regulatory authority for any revisions or requests for additional information that are required by the program in order to grant the requested plan permit, approval, or license. Refer to S.L. 2014-120, Section 29.(b)(2) for further details about this requirement.

☒ Check to indicate that this plan review program implemented procedures for local governments to follow when (1) a Professional Engineer submits a sealed design or practice that is not in the local government's guidance, manuals, or standard operating procedures, and (2) the submitting Professional Engineer requests additional internal review of that design or practice. Refer to S.L. 2014-120, Section 29.(c)(1) for further details about this requirement. ***See Attachment #2 for Sedimentation/Erosion Control and Stormwater Standard Operating Procedures regarding Innovative Design.***

☒ Check to indicate that this plan review program established a procedure whereby the plan reviewer's supervisor OR the approving/delegating state agency can provide further review and oversight of these design details. Refer to S.L. 2014-120, Section 29.(c)(1) for further details about this requirement.

☒ Check to indicate that this plan review program either employs a Professional Engineer who can conduct further review of these innovative designs, or maintains a list of consulting Professional Engineers of the local government unit's choice that may conduct this review, if requested by and paid for by the submitting Professional Engineer. Refer to S.L. 2014-120, Section 29.(c)(1) for further details about this requirement.

☒ Check to indicate that this plan review program established an informal internal process to address disputes when a plan reviewer identifies a change to the plans as being "required" under a specific, identified legal authority. Refer to S.L. 2014-120, Section 29.(c)(2) for further details about this requirement. ***See Attachment #3 for Sedimentation/Erosion Control and Stormwater Ordinances which highlight the respective appeal process.***

Name of local government unit: City of Greenville

☒ Check to indicate that this plan review program discontinued use of the word “engineer” in the job titles of all program employees whose responsibilities include review of plans in affected programs, *unless* those employees hold Professional Engineer licenses. Refer to S.L. 2014-120, Section 29.(h) for further details about this requirement. ***All employees reviewing Sedimentation/Erosion Control and Stormwater plans are Professional Engineers in the State of North Carolina.***

☒ Check to indicate that this plan review program reviewed the titles of all employees conducting plan reviews for this program. Refer to S.L. 2014-120, Section 29.(h)(1) for further details about this requirement.

☒ Check to indicate that this plan review program proposed revisions to those employees’ job titles in order to eliminate use of the word “engineer” when publicly identifying those employees, if those employees do not hold Professional Engineer licenses. Refer to S.L. 2014-120, Section 29.(h)(2) for further details about this requirement.

ATTACHMENTS

Engineering Division-Sedimentation/Erosion Control Program
(DATE)

LETTER OF DISAPPROVAL

(COMPANY)
(FINANCIAL RESPONSIBLE PARTY)
(ADDRESS)
(ADDRESS)

Re: Project Name: (NAME)
Section/Phase: (NAME)
County: Pitt
River Basin: (BASIN)
Date Received: (DATE)
Responsible Party: (NAME)

Dear (FINANCIAL RESPONSIBLE PARTY):

This office has completed its review of the erosion and sedimentation control plan for the referenced (AREA) acre disturbance. Based on the information provided, we have determined the submitted plan for the grading and drainage associated with the construction of this site, if implemented, will not meet the minimum requirements of the Act. We, therefore, issue this LETTER OF DISAPPROVAL due to the following REQUIRED items:

1. (CODE REFERENCE) (COMMENTS)
2. (CODE REFERENCE) (COMMENTS)
3. (CODE REFERENCE) (COMMENTS)

In addition to these required revisions, we also RECOMMEND the following:

1. (COMMENTS)
2. (COMMENTS)

As a point of consideration during the revision of the drawings. This project as submitted, even if/when the above item is addressed, WOULD NOT/WILL NOT be covered by the new (Federal) NPDES Construction Stormwater General Permit. See the enclosed information from the Division of Water Quality on specific items that must be modified in order to be covered by the new Federal permit.

In 1989, the City of Greenville Soil Erosion and Sedimentation Control Ordinance (copy available upon request) was enacted. It established a performance oriented program requiring a project owner or developer to protect adjoining natural resources and properties, both during and after construction, from the effects of accelerated erosion. It is **YOUR RESPONSIBILITY** to understand and comply with the above listed modifications (if any), as well as, the following minimum requirements of the Act:

- ... *an erosion and sedimentation control plan is only valid for 2 years following the date of initial approval, if no land-disturbing activity has been undertaken;*
- ... *the LATEST APPROVED soil erosion and sediment control plan will be used during inspection to determine compliance and a copy of the plan must be on file at the job site. If it is determined that the implemented plan is inadequate, this office may require the installation of additional measures and/or that the plan be revised to comply with state laws;*
- ... *except in the case of a storm related emergency, a **revised erosion and sedimentation control plan must be submitted to and approved by this office prior to initiating any significant changes in the construction, grading or drainage plan;***
- ... *a buffer zone, sufficient to restrain visible sedimentation must be provided and maintained between the land-disturbing activity and any adjacent property or watercourse.*
- ... *new or affected cut or filled slopes must be at an angle that can be retained by vegetative cover, AND **must be provided with a ground cover** sufficient to restrain erosion **within 21 calendar days of completion of any phase (rough or final) of grading (RYE GRASS IS NOT** in the approved seeding specifications nor is it an **ACCEPTABLE** substitute for the providing of a temporary ground cover);*
- ... *the **CERTIFICATE OF PLAN APPROVAL** must be posted at the primary entrance to the job site and remain until the site is permanently stabilized; this will be delivered at time of pre-construction meeting;*
- ... *unless a temporary, manufactured, lining material has been specified, a clean straw mulch must be applied, at the minimum rate of 2 tons/acre, to all seeded areas. The mulch must cover at least 75% of the seeded area after it is either tacked, with an acceptable tacking material, or crimped in place;*
- ... *in order to comply with the intent of the Ordinance, the scheduling of the land-disturbing activities is to be such that both the area of exposure and the time between the land disturbance and the providing of a ground cover is minimized;*
- ... *A **permanent ground cover**, sufficient to restrain erosion, **must be provided** within the shorter of 15 working or 90 calendar days (if in a High Quality Zone,*

*the shorter of 15 working or 60 calendar days) after completion of construction or development on any portion of the tract (**ANNUAL RYE GRASS IS NOT** in the **APPROVED** seeding specifications **NOR** is it an **ACCEPTABLE** substitute for the providing of a nurse cover for the permanent grass cover);*

- ... this approval is based, in part, on the accuracy of the information provided in the Financial Responsibility/Ownership form submitted with the project plans. You are required to file an amended form if there is any change in the information included on the form. This approval and the financial responsibility/liability cited in it does not automatically transfer with a change in project ownership.*
- ... All sediment and erosion control details for this project must conform to the standards as shown in the current Erosion & Sediment Control Planning and Design Manual; these details must be utilized for construction and incorporated in the plan. The manual can be found online at <http://portal.ncdenr.org/web/lr/publications>.*

Be advised that to ensure compliance with the approved plan and the program requirements, unannounced periodic inspections will be made. If it is determined that the implemented plan is inadequate, this office may require the installation of additional measures and/or that the plan be revised to comply with state law. (Note: Revisions to the scope of this project without prior approval of the plan showing the changes can be considered a violation). Failure to comply with any part of the approved plan or with any requirements of this program could result in the taking of appropriate legal action against the financially responsible party (**FINANCIAL RESPONSIBLE PARTY**). One option is the assessing of a civil penalty of up to \$5000 for the initial violation plus up to \$5000 per day for each day the site is out of compliance.

In recognizing the desirability of early coordination of sedimentation control, we believe it would be beneficial for you and your contractor to arrange a pre-construction conference to discuss the requirements of the approved erosion and sedimentation control plan. Prior to beginning this project, **YOU ARE REQUIRED TO CONTACT THIS OFFICE TO ADVISE Mr. Tim Corley, P.E., Civil Engineer II (252-329-4467) OF THE CONSTRUCTION START-UP DATE. You will receive the Land Disturbing Permit and Certificate at the Pre-Construction Meeting.**

Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations and rules. In addition, the land disturbing activity described in this plan may also require approval or permitting from other agencies-Federal, State or local. These could include the U.S. Army Corps of Engineers under Article 4.04 jurisdiction, the Division of Water Quality-Surface Water Section under stormwater regulations (contact Mr. Bill Moore, 252-946-6481, ext. 264), county, city or town agencies under other local ordinances, or other approvals that may be required. This approval does not supersede any other approval or permit.

Please be advised that a rule to protect and maintain existing buffers along watercourses in the Neuse River Basin became effective on July 22, 1997. The Neuse Riparian Area Protection and Maintenance Rule (15A NCAC 2B.0233) applies to a 50 (horizontal) foot wide zone along all perennial and intermittent streams, lakes, ponds and estuaries in the Neuse River basin. In

riparian areas, the rules prohibit land disturbance, new development and fertilizer use in the first 30 (horizontal) feet directly adjacent to the stream and/or coastal wetland vegetation. Clearing seeding and a one-time fertilizer use to establish the grass is allowed within the riparian area 20 feet landward of the first 30 feet of riparian area, but new development is prohibited. For more information about this riparian area rule, please contact the Division of Water Quality Wetland/401 Unit at 919-733-1786, or DWQ in their regional office at 252-946-6481.

Please be advised that a temporary rule to protect and maintain existing buffers along watercourses in the Tar-Pamlico River Basin became effective on January 1, 2000. The Tar-Pamlico River Riparian Area Protection and Maintenance Rule (15A NCAC 2B.0259) applies to a 50 (horizontal) foot wide zone along all perennial and intermittent streams, lakes, ponds and estuaries in the Tar-Pamlico River basin with forest vegetation on the adjacent land or “riparian area.” In riparian areas, the rule prohibits all land disturbance, new development and fertilizer use in the first 30 (horizontal) feet directly adjacent to the stream and/or coastal wetland vegetation. With the exception of clearing, seeding and a one-time fertilizer use to establish the grass, the rule prohibits new development in the zone 20 feet landward of the first 30 feet of riparian area. For more information about this riparian area rule, please contact the Division of Water Quality Wetland/401 Unit at 919-733-1786, or DWQ in their regional office at 252-946-6481.

Sincerely,

Tim Corley, PE
Civil Engineer II

Enclosure

Cc w/o enclosures: (ENGINEER)
Della Robbins, Division of Water Quality (electronic)

PUBLIC WORKS

Engineering Division - Stormwater Program
(DATE)

COMMENTS – 1st ROUND

(COMPANY NAME)
(ENGINEER)
(ADDRESS)
(ADDRESS)

RE: Project Name: (NAME)
River Basin: (BASIN)

Dear (ENGINEER):

This office has completed its review of the stormwater management plan for the above referenced project. Based on the information provided, we have determined the submitted plan for stormwater management does not meet the minimum requirements. Therefore, the following comments shall be addressed:

| Code Reference | Required or Suggested | Comment |
|----------------|-----------------------|---------|
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I have asked Amanda Braddy to provide you with scans of the markups which will follow in the next few days. If you have any questions after reviewing my comments and markups please let me know and we can set up a time to discuss further.

Sincerely,

Amanda C. Boone, PE
Civil Engineer II

**City of Greenville
Public Works Department-Engineering Division
Standard Operating Procedure**

To: Engineering Division

From: Scott Godefroy, P.E., City Engineer

RE: Innovative Designs for Stormwater or Erosion & Sedimentation Control

Effective Date: December 23, 2014

Stormwater

1. Per City Ordinance, the City of Greenville utilizes the North Carolina Department of Environmental and Natural Resources (NCDENR) Stormwater BMP Manual ('Manual') as the regulatory document for stormwater plan reviews.
2. Chapter 1, Section 1.4 of the Manual addresses deviations or alternatives to the design options presented.
3. Innovative designs presenting a deviation or alternative to the design manual will be considered by the City of Greenville on a case-by-case basis. Final approval will be given by the City in concurrence with NCDENR as the delegating authority.

Erosion & Sedimentation Control

1. City of Greenville utilizes the NC Erosion and Sediment Control Planning and Design manual as the regulatory document for erosion control plan reviews.
2. Innovative designs presenting a deviation or alternative to the design manual will be considered by the City of Greenville on a case-by-case basis. Final approval will be given by the City in concurrence with NCDENR as the delegating authority.

CHAPTER 8: SOIL EROSION AND SEDIMENTATION CONTROL

Section

| | |
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| 9-8-23 | Severability |

SEC. 9-8-1 TITLE.

This chapter may be cited as “The City of Greenville Soil Erosion and Sedimentation Control Ordinance” or “this chapter.”

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-2 PURPOSES.

This chapter is adopted for the purpose of:

(A) Regulating certain land-disturbing activity to control accelerated erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property by sedimentation within the city limits of the City of Greenville and the extraterritorial jurisdiction of the city; and

(B) Establishing procedures through which these purposes can be fulfilled.

(Ord. No. 98-7, passed 1-8-1998; Ord. No. 06-50, § 1, passed 6-8-2006)

SEC. 9-8-3 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

Accelerated erosion. Any increase over the rate of natural erosion as a result of land-disturbing activities.

Act. The North Carolina Sedimentation Pollution Control Act of 1973, being G.S. 113A-50 *et seq.*, and all rules and orders adopted pursuant to it.

Active construction. Activities which contribute directly to the building of facilities including land-disturbing activities for roads, parking lots, footings and the like.

Adequate erosion and control measure, structure or device. One which controls the soil material within the land area under responsible control of the person conducting the land-disturbing activity.

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

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

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

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

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

Commission. The City of Greenville Planning and Zoning Commission.

Completion of construction or development. 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. The removal of ground cover from, on or above the soil surface.

Department. The North Carolina Department of Environment, Health, and Natural Resources.

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

Discharge point. That point at which runoff leaves a tract of land.

District. The Pitt County Soil and Water Conservation District created pursuant to G.S. Chapter 139 of the North Carolina General Statutes.

Drainage easement. A minimum strip of land reserved for conveyance of stormwater generally located along the rear or side lot lines but may cross lots at such points that will not pose a hazard to persons or property.

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

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

Extraterritorial jurisdiction. That territory surrounding the corporate limits of the city over which the city exercises its planning and zoning authorities as established by action of the City Council on June 26, 1972 and subsequently amended.

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

High quality water (HQW) zones. Areas in the Coastal Counties that are within 575 feet of high quality waters and for the remainder of the state areas that are within one mile and drain to HQWs.

High quality waters. Those classified as such in 15A NCAC 2B.0101(e)(5), General Procedures, which is incorporated herein by reference to include further amendments pursuant to G.S. Chapter 150B, Article 2A.

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

Land-disturbing activity. Any use of the land by any person in residential, industrial, 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.

Land-disturbing permit. The approval document allowing land-disturbing activities to be initiated. A project may be developed in phases with separate permits for each phase.

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

Natural erosion. Wearing away of the earth's surface by water, wind or other natural agents under natural environmental conditions undisturbed by mankind.

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

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

Person conducting land-disturbing activity. Any person who may be held responsible for a violation unless expressly provided otherwise by this chapter, the Act, or any order adopted pursuant to this chapter or the Act.

Person responsible for the violation. As used in this chapter and G.S. 113A-64, means:

- (1) The developer or other person who has or holds himself or 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 or she has directly or indirectly allowed the land-disturbing activity or has benefitted from it, or he or she has failed to comply with any provision of this chapter, the Act or any order adopted pursuant to this chapter or the Act as imposes a duty upon him or her.

Phase of grading. One of two types of grading, rough or fine.

Plan. Erosion and Sedimentation Control Plan.

Protective cover. Natural or artificial ground cover of grass, trees, shrubs or mulch sufficient to reduce erosion potential.

Receiving watercourse. A lake, natural watercourse, or other natural or man-made area into which stormwater runoff flows from a land-disturbing activity.

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

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

Siltation. Sediment resulting from accelerated erosion which is settleable or removable by properly designed, constricted 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.

Special flood hazard area. The land located within the floodplain subject to a 1% or greater chance of flooding in any given year and subject to the conditions of Title 9, Chapter 6 of the City Code, Flood Damage Prevention.

Storm drainage facilities. 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. The direct runoff of water resulting from precipitation in any form.

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

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

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

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

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

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

Wastes. Surplus materials resulting from on-site construction and disposed of at other locations.

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

(Ord. No. 98-7, passed 1-8-1998; Ord. No. 99-119, § 1, passed 9-9-1999)

SEC. 9-8-4 SCOPE; EXCLUSIONS.

This chapter shall not apply to the following land-disturbing activities:

(A) Activities, including the breeding and grazing of livestock, undertaken on agricultural land for the production of plants and animals useful to mankind, including but not limited to:

- (1) Forages and sod crops, grains and feed crops, tobacco, cotton and peanuts;
- (2) Dairy animals and dairy products;
- (3) Poultry and poultry products;
- (4) Livestock, including beef cattle, sheep, swine, horses, ponies, mules and goats;
- (5) Bees and apiary products; and

(6) Fur-producing animals.

(B) 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 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 chapter shall apply to such activity and any related land-disturbing activity on the tract; and

(C) Activities for which a permit is required under the Mining Act of 1971, being G.S. Chapter 74, Article 7 of the General Statutes;

(D) Land-disturbing activity over which the state has exclusive regulatory jurisdiction as provided in G.S. 113A-56(a); and

(E) For the duration of an emergency, activities essential to protect human life.
(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-5 GENERAL REQUIREMENTS.

(A) *Plan and permit required.* No person shall initiate any land-disturbing activity which uncovers more than one acre without having an erosion control plan and land-disturbing permit approved by the city. Additionally, no person shall initiate any land-disturbing activity greater than 5,000 square feet without having a land-disturbing permit approved by the city. Furthermore, no person shall initiate land-disturbing activity of any size within the special flood hazard area without first obtaining a land-disturbing permit and an approved sedimentation and erosion control plan meeting the requirements of this chapter and Chapter 6 entitled "Flood Damage Prevention."
(Ord. No. 99-119, §§ 2-6, passed 9-9-1999)

(B) *Protection of property.* Persons conducting land-disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by that activity.

(C) *More restrictive rules shall apply.* Whenever conflicts exist between federal, state or local laws, ordinances or rules, the more restrictive provision shall apply.
(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-6 BASIC CONTROL OBJECTIVES.

(A) An erosion and sedimentation control plan may be disapproved pursuant to section 9-8-17 of this chapter 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;
- (2) *Limit time of exposure.* All land-disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time;
- (3) *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;
- (4) *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;
- (5) *Control sedimentation.* All land-disturbing activity is to be planned and conducted so as to prevent off-site sedimentation damage; and

- (6) *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.

(B) When deemed necessary by the approving authority, a preconstruction conference may be required.
(Ord. No. 98-7, passed 1-8-1998; Ord. No. 00-155, §§ 1, 2, passed 12-14-2000)

SEC. 9-8-7 MANDATORY STANDARDS FOR LAND-DISTURBING ACTIVITY.

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

(A) *Buffer zone.*

- (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, provided that 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.
- (2) 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 25% of the strip nearer the land-disturbing activity containing natural or artificial means of confining visible siltation.

(B) *Graded slopes and fills.* The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control devices or structures. In any event, slopes left exposed will, within 21 calendar days of completion of any phase of grading, be planted or otherwise provided with ground cover, devices or structures sufficient to restrain erosion.

(Ord. No. 99-119, § 8, passed 9-9-1999; Ord. No. 11-018, § 1, passed 4-11-2011)

(C) *Ground cover.* Whenever land-disturbing activity is undertaken on a tract in excess of 5,000 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 the 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 section 9-8-8(B)(5), provisions for ground cover sufficient to restrain erosion must be accomplished within 21 calendar days following completion of any phase of grading.
(Ord. No. 99-119, § 10, passed 9-9-1999; Ord. No. 00-155, §§ 3, 4, passed 12-14-2000; Ord. No. 06-50, § 2, passed 6-8-2006)

(D) *Prior plan approval.* No person shall initiate any land-disturbing activity on a tract if more than one acre is to be uncovered unless, 30 or more days prior to initiating the activity, an erosion and sedimentation control plan for such activity is filed with and approved by the city.

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-8 DESIGN AND PERFORMANCE STANDARDS.

(A) Except as provided in subsection (B)(2) of this section, erosion and sedimentation control measures, structures and devices shall be so planned, designed and constructed as to provide protection from the calculated maximum peak rate of runoff from the ten-year storm. Runoff rates shall be calculated using the procedures in the USDA, Soil Conservation Service's *National Engineering Field Manual for Conservation Practices*, or other acceptable calculation procedures.

(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 within the boundaries of the tract of 20 acres. Only the portion of the land-disturbing activity within a HQW zone shall be governed by this section. Larger areas may be uncovered within the boundaries of the tract with the written approval of the Director.
- (2) 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 25-year storm which produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agriculture Soil Conservation Service's *National Engineering Field Manual for Conservation Practices*, or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
- (3) Sediment basins within HQW zones shall be designed and constructed such that the basin will have a settling efficiency of at least 70% for the 40 micron (0.04 mm) size soil particle transported into the basin by the runoff of that two-year storm which produces the maximum peak rate of runoff as calculated according to procedures in the United States Department of Agriculture Soil Conservation Service's *National Engineering field Manual for Conservation Practices* or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.
- (4) Newly constructed open channels in HQW zones shall be designed and constructed with side slopes no steeper than two horizontal to one vertical (2:1) if a vegetative cover is used for stabilization unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other acceptable ditch liners. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.
- (5) Ground cover sufficient to restrain erosion must be provided for any portion of a land-disturbing activity in a HQW zone within 15 working days or 60 calendar days following completion of construction or development, whichever period is shorter.

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-9 STORMWATER OUTLET PROTECTION.

- (A) (1) Persons shall conduct land-disturbing activity so that the post construction velocity of the ten-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:
 - (a) The velocity established by the table in subsection (D) of this section; or
 - (b) The velocity of the ten-year storm runoff in the receiving watercourse prior to development.
- (2) If conditions (1)(a) or (b) of this subsection (A) cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the "prior to development" velocity by 10%.

(B) *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 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 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); and
- (4) Protect watercourses subject to accelerated erosion by improving cross-sections and/or providing erosion resistant lining.

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

(D) *Table.* The following is a table for maximum permissible velocity for stormwater discharges:

| Material | <u>Maximum Permissible</u> <u>Velocities for</u> | |
|---|---|--------|
| | F.P.S. | M.P.S. |
| Fine sand (noncolloidal) | 2.5 | 0.8 |
| Sandy loam (noncolloidal) | 2.5 | 0.8 |
| Silt loam (noncolloidal) | 3.0 | 0.9 |
| Ordinary firm loam | 3.5 | 1.1 |
| Fine gravel | 5.0 | 1.5 |
| Stiff clay (very colloidal) | 5.0 | 1.5 |
| Graded, loam to cobbles (non colloidal) | 5.0 | 1.5 |
| Graded, silt to cobbles (colloidal) | 5.5 | 1.7 |
| Alluvial silts (noncolloidal) | 3.5 | 1.1 |
| Alluvial silts (colloidal) | 5.0 | 1.5 |
| Coarse gravel (noncolloidal) | 6.0 | 1.8 |
| Cobbles and shingles | 5.5 | 1.7 |
| Shales and hard pans | 6.0 | 1.8 |

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

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-10 BORROW AND WASTE AREAS.

(A) When the person conducting the land-disturbing activity is also the person conducting the borrow or waste disposal activity, areas from which borrow is obtained and which are not regulated by the provisions of the Mining Act of 1971, and waste areas for surplus materials other than landfills regulated by the Department's Division of 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.

(B) 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. 98-7, passed 1-8-1998)

Statutory reference:

State Mining Act of 1971, see G.S. 74-46 through 74-68

SEC. 9-8-11 ACCESS AND HAUL ROADS.

Temporary access and haul roads, other than public roads, constructed or used in connection with any land-disturbing activity, shall be considered a part of that activity.

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-12 OPERATIONS IN LAKES OR NATURAL WATERCOURSES.

Land-disturbing activity in connection with construction in, on, over or under a lake or natural watercourse shall 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 necessary justification for significant alteration to flow characteristic is provided.

(Ord. No. 06-50, § 3, passed 6-8-2006)

SEC. 9-8-13 RESPONSIBILITY FOR MAINTENANCE.

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

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-14 ADDITIONAL MEASURES.

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

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-15 EXISTING UNCOVERED AREAS.

(A) All uncovered areas existing on December 11, 1985, which resulted from land-disturbing activity, exceed one acre, are subject to continued accelerated erosion, and are causing off-site damage from sedimentation shall be provided with a ground cover or other protective measures, structures or devices sufficient to restrain accelerated erosion and control off-site sedimentation.

(B) The city will serve upon the landowner or other person in possession or control of the land a written notice of violation by registered or certified mail, return receipt requested or other means authorized under G.S. 1A-1, Rule 4. The notice will set forth the measures needed to comply and will state the time within which the measures must be completed. In determining the measures required and 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.

(Ord. No. 06-50, § 4, passed 6-8-2006)

(C) The city 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.

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-16 PERMITS.

(A) *Required; exceptions.* No person shall undertake any land-disturbing activity subject to this chapter without first obtaining a permit therefor from the city, office of the City Engineer, except that no permit shall be required for any land-disturbing activity as identified in section 9-8-4.

(Ord. No. 06-50, § 5, passed 6-8-2006)

(B) *Fees.* A fee established in accordance with the *Manual of Fees* adopted by the City Council shall be submitted with each application for a land-disturbing permit.

(C) *Prerequisite to issue of building permit.* No building permit shall be issued for a structure until the Building Inspector has obtained evidence that a valid land-disturbing permit has been obtained.

(Ord. No. 98-7, passed 1-8-1998; Ord. No. 99-119, § 11-14, passed 9-9-1999)

SEC. 9-8-17 EROSION AND SEDIMENTATION CONTROL PLANS.

(A) An erosion control plan shall be prepared for all land-disturbing activities subject to this chapter whenever the proposed activity is to be undertaken on a tract comprising more than one acre, if more than one acre is to be uncovered. The plan shall be filed with the city, office of the City Engineer and the Pitt County Soil and Water Conservation District at least 30 days prior to the commencement of the proposed activity.

(B) Persons conducting land-disturbing activity on a tract which covers one or more acres shall file three copies of the erosion control plan with the office of the City Engineer at least three days prior to beginning the activity and shall keep another copy of the approved plan on file at the job site. After approving the plan, if the office of the City Engineer, either upon review of such plan or on inspection of the job site, determines that a significant risk of accelerated erosion or off-site sedimentation exists, the office of the City Engineer will require a revised plan. Pending the preparation of the revised plan, work shall cease or shall continue under conditions outlined by the appropriate authority.

(C) Erosion control plans may be disapproved unless accompanied by an authorized statement of financial responsibility and ownership. This statement shall be signed by the person financially responsible for the land-disturbing activity or his or 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 the person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving notice of compliance or noncompliance with the plan, the Act, this chapter or rules or orders adopted or issued pursuant to this chapter.

(D) The Pitt County Soil and Water Conservation District shall review the plan and submit any comments or recommendations to the office of the City Engineer within 20 days after the Soil and Water Conservation District received the erosion control plan, or within any shorter period of time as may be agreed upon by the Soil and Water Conservation District and the office of the City Engineer. Failure of the Soil and Water Conservation District to submit its comments and recommendations within 20 days or within any agreed-upon shorter period of time shall not delay final action on the plan.

(E) The office of the City Engineer will review each complete plan submitted to it and within 30 days of receipt thereof will notify the person submitting the plan that it has been approved, approved with modifications, approved with performance reservations, or disapproved. The office of the City Engineer shall condition approval of a draft erosion control plan upon the applicant's compliance with federal and state water quality laws, regulations and rules. Failure to approve, or disapprove, approve with performance reservations, or approve with modifications a complete erosion and sedimentation control plan within 30 days of receipt shall be deemed approval. Disapproval of a plan or a revised erosion control plan must specifically state in writing the reasons for the disapproval. The office of City Engineer must approve or deny a revised plan within 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 office of City Engineer determines that the plan is inadequate to meet the requirements of this chapter, the office of City Engineer may require any revisions as are necessary to comply with this chapter. Failure to approve, approve with modifications or disapprove a revised erosion control plan within 15 days of receipt shall be deemed approval of the plan.

(Ord. No. 00-155, §§ 5-6, passed 12-14-2000)

(F) Any plan submitted for a land-disturbing activity for which an environmental document 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 city shall promptly notify the person submitting the plan that the 30-day time limit for review of the plan pursuant to subsection (E) of this section shall not begin until a complete environmental document is available for review.

(G) The plan required by this section shall contain architectural and engineering drawings, maps, assumptions, calculations and narrative statements as needed to adequately describe the proposed development of the tract and the measures planned to comply with the requirements of this chapter. Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for plan preparation may be obtained from the office of the City Engineer, on request.

(H) An erosion control plan may be disapproved upon a finding that an applicant, or a parent, subsidiary or other affiliate of the applicant:

- (1) Is conducting or has conducted land-disturbing activity without an approved plan, or has received notice of violation of a plan previously approved by the Commission or a local government pursuant to the Act and has not complied with the notice within the time specified in the notice;
- (2) Has failed to pay a civil penalty assessed pursuant to the Act or a local ordinance adopted pursuant to the Act by the time the payment is due;
- (3) Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act;
- (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 years prior to the application date; or
- (5) If implementation would result in a violation of rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters under G.S. 113A-61(b1).

(Ord. No. 06-50, §§ 6-8, passed 6-8-2006)

(I) Applications 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 the amendment is approved by the office of City Engineer, the land-disturbing activity shall not proceed except in accordance with the erosion control plan as originally approved.

(J) Any person engaged in land-disturbing activity who fails to file a sedimentation and erosion control plan and obtain a land-disturbing permit in accordance with this chapter, or who conducts a land-disturbing activity except in accordance with provisions of an approved plan, shall be deemed in violation of this chapter.

(Ord. No. 99-119, § 15, passed 9-9-1999)

(K) An approved land-disturbing permit and/or erosion control plan shall be valid for a period of two years from the date of approval.

(Ord. No. 99-119, § 16, passed 9-9-1999)

(L) A copy of the erosion control plan for any land-disturbing activity that involves the utilization of ditches for the purpose of dewatering or lowering the water table must be forwarded to the Director of the Division of Water Quality.

(Ord. No. 00-155, § 7, passed 12-14-2000)

(M) No person may initiate a land-disturbing activity until notifying the office of the City Engineer of the date that the land-disturbing activity will begin.

(Ord. No. 00-155, § 7, passed 12-14-2000)

(N) A plan issued under this article shall be prominently displayed until all construction is complete, all permanent sedimentation and erosion control measures are installed and the site has been stabilized. A copy of the approved plan should be kept on file at the job site.

(Ord. No. 06-50, § 9, passed 6-8-2006)

(O) The City Engineer shall only approve a plan upon determining that it complies with all applicable state and local regulations for erosion and sedimentation control. Approval assumes the applicant's compliance with the federal and state water quality laws, regulations and rules. The City Engineer shall condition approval of plans upon the applicant's compliance with federal and state water quality laws, regulations and rules. The City Engineer may establish an expiration date, not to exceed three years, for plans approved under this chapter.

(Ord. No. 98-7, passed 1-8-1998; Ord. No. 06-50, § 9, passed 6-8-2006)

SEC. 9-8-18 APPEALS.

(A) The disapproval or modifications of any proposed plan by the office of City Engineer shall entitle the person submitting the plan to a public hearing, if the person submits written demand to the City Manager for a hearing within 15 days after receipt of written notice of disapproval or modification.

(B) Hearings held pursuant to this section shall be conducted by the Planning and Zoning Commission within 45 days after the date of the receipt of the written demand for a public hearing. The date of the public hearing shall be advertised once a week for two successive calendar weeks in a newspaper having general circulation. The notice shall be published the first time not less than 15 days nor more than 25 days before the date fixed for the hearing.

(C) The applicant requesting a public hearing under this section will be charged for the exact cost of the advertising charges plus \$5.

(D) The Planning and Zoning Commission will render its final decision on any erosion control plan upon which a hearing is requested within 45 days of conducting the hearings.

(E) If the Planning and Zoning Commission upholds the disapproval or modification of a proposed soil erosion and sedimentation control plan following the hearing, the person submitting the plan shall then be entitled to appeal the local government's decision to the North Carolina Sedimentation Control Commission as provided in G.S. 113A-61(c) of the General Statutes of North Carolina and Title 15A, NCAC 4B.0118(b).

(F) In the event that an erosion control plan is disapproved pursuant to section 9-8-17(H), the city shall notify the Director of Division of Land Resources of such disapproval within ten days. The city shall advise the applicant and the Director in writing as to the specific reasons that the plan was disapproved. The applicant may appeal the city's disapproval of the plan pursuant to section 9-8-17(H) directly to the Commission.

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-19 INSPECTIONS AND INVESTIGATIONS.

(A) The City Engineer and other appropriate officials of the city will periodically inspect land-disturbing activities to ensure compliance with the Act, this chapter, or rules or orders adopted or issued pursuant to this chapter, and to determine whether the measures required in the plan are effective in controlling erosion and sediment resulting from land-disturbing activity. Notice of the right to inspect shall be included in the notification of plan approval.

(B) No person shall willfully resist, delay or obstruct an authorized representative, employee or agent of the city while that person is inspecting or attempting to inspect a land-disturbing activity under this section.

(C) If it is determined that a person engaged in land-disturbing activity has failed to comply with the Act, this chapter, or rules or orders adopted or issued pursuant to this chapter; a notice of violation shall be served upon that person. The notice may be served by any means authorized under G.S. 1A-1, Rule 4. The notice shall specify a date by which the person must comply with this chapter, or rules or orders adopted pursuant to this chapter, and inform the person of the actions that need

to be taken to comply with this chapter, or rules, or orders adopted pursuant to this chapter. 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 his or her official duties. Any person who fails to comply within the time specified is subject to the civil and criminal penalties provided in this chapter.

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

(E) The city shall also have the power to require written statements or the filing of reports under oath with respect to pertinent questions relating to land-disturbing activity.

(Ord. No. 98-7, passed 1-8-1998)

SEC. 9-8-20 PENALTIES.

(A) Any person who violates any of the provisions of this chapter, or rules or orders adopted or issued pursuant to this chapter, or who initiates or continues a land-disturbing activity for which a plan is required except in accordance with the terms, conditions and provisions of an approved plan, is subject to a civil penalty. The maximum civil penalty for a violation, other than a stop-work order issued under G.S. 113A-65.1, is \$5,000 per day. The maximum civil penalty for a violation of a stop-work order is \$5,000. No penalty shall be assessed until the person alleged to be in violation has been notified of the violation as provided in section 9-8-19(C). A civil penalty may be assessed from the date of the violation. Refusal to accept the notice or failure to notify the City Engineer of a change of address shall not relieve the violator's obligation to comply with this chapter or to pay such penalty. Each day of continuing violation shall constitute a separate violation. A person may also be assessed a one-time civil penalty of up to \$5,000 for the day the violation is first detected.

(Ord. No. 00-155, §§ 8-10, passed 12-14-2000)

(B) The person responsible for the violation of this chapter shall be subject to a civil penalty in the amount of \$100 to \$5,000 per day maximum for the first offense, \$250 to \$5,000 per day maximum for the second offense during the life of the project, and \$5,000 per day maximum for the third and subsequent offenses for the life of the project. The offenses shall be considered on a site-by-site basis. The penalty shall be established by the City Engineer, depending on the existence of aggravating and/or mitigating circumstances surrounding the violation. Violations of this type may include but are not limited to the following:

- (1) Grading without a permit issued by the city;
- (2) Grading beyond the limits of an existing grading permit without approval of an amended grading permit;
- (3) Failure to properly install or maintain erosion control measures in accordance with the approved plan so as to prevent off-site sedimentation;
- (4) Failure to retain sediment from leaving a land-disturbing activity, in accordance with the approved plan or other terms, as required by this chapter;
- (5) Failure to restore off-site areas affected by sedimentation during the time limitation established in a notice of violation;
- (6) Any other violation of this chapter which resulted in off-site sedimentation and, in the discretion of the City Engineer, warrants an assessment of a civil penalty;
- (7) Failure to provide an angle on graded slopes sufficient to retain vegetative cover or other adequate erosion control devices or structures or failure to plant or otherwise provide with ground cover, devices or structures sufficient to restrain erosion within 15 working days of completion of any phase of grading on slopes left exposed;

- (8) Failure to provide a ground cover sufficient to prevent erosion within 30 working days or 120 calendar days, following completion of construction or development, whichever period is shorter;
- (9) Failure to submit to the office of the City Engineer for approval an acceptable revised erosion and sedimentation control plan after being notified by the City Engineer of the need to do so;
- (10) Failure to retain a buffer zone of sufficient width along a lake or natural watercourse to confine visible siltation within the 25% of the buffer zone nearest the land-disturbing activity;
- (11) Failure to schedule and conduct a preconstruction meeting prior to any land-disturbing activity, as required on the approved plan; and/or
- (12) Any other action that constituted a violation of this chapter.

(Ord. No. 00-155, § 11, passed 12-14-2000; Ord. No. 06-50, § 10, passed 6-8-2006)

(C) In determining the amount of the civil penalty, the City Engineer shall consider the following factors: the degree and extent of harm caused by the violation; the risk to receiving watercourses; the cost of rectifying the damage; whether the violator saved money by noncompliance; whether the violator took reasonable measures to comply with the notice of violation; whether the violation was committed willfully after being informed of the potential violation; and the prior record of the violator in complying or failing to comply with this chapter. The City Engineer is authorized to reduce the amount of the per diem penalty set out in subsection (B) above to take into account any relevant mitigating factors.

(Ord. No. 06-50, § 11, passed 6-8-2006)

(D) Notwithstanding any other provision of this chapter, no required time period need be given for compliance for failure to submit an erosion control plan and land-disturbing permit for greater than one acre before a land-disturbing activity occurs and the penalty for the commencement of the land-disturbing activity without submittal of such plan and permit shall be a minimum of \$500 and a maximum of \$5,000, if warranted, for the land-disturbing activity in question.

(Ord. No. 06-50, § 12, passed 6-8-2006)

(E) Any person who fails to protect adjacent properties from pollutants shall be subject to a civil action as provided in section 9-8-21. Civil penalties for pollutants leaving the construction site may be assessed based on those factors listed in subsection (C) of this section.

(Ord. No. 06-50, § 13, passed 6-8-2006)

(F) The City Engineer shall determine the amount of the civil penalty and shall notify the person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty. The notice of assessment shall be served by any means authorized under G.S. 1A-1, Rule 4 and shall direct the violator to either pay the assessment or contest the assessment as specified in subsection (G). If a violator does not pay a civil penalty assessed by the City Engineer within 45 days after it is due or does not request a hearing as provided in subsection (G), the City Engineer shall request the City Attorney to institute a civil action to recover the amount of the assessment. The civil action may be brought in Pitt County Superior Court or in the Superior Court for the county where the violator's residence or principal place of business is located.

(G) A violator may contest the assessment of a civil penalty by submitting a written request for a review of the assessment by the Director of Public Works to the City Engineer within 15 days after receipt of the notice of assessment. Upon receipt of the written request, the City Engineer shall confer with the Director of Public Works concerning the civil penalty; and after the conference, the Director of Public Works shall notify the violator within ten days after receipt of the written request for a review whether the penalty has been upheld or modified. If the violator is not satisfied with the action of the Director of Public Works, the violator may further contest the assessment by submitting a written demand for a public hearing before the Board of Adjustment to the City Engineer and the Community Development Director within 45 days after receipt of the initial notice of assessment from the City Engineer. A hearing on a civil penalty shall be conducted by the Board of Adjustment within 45 days after receipt of the written demand for the hearing. The Board of Adjustment shall make its decision to uphold or modify the civil penalty within 30 days after the date of the hearing. An appeal from the decision of the Board of Adjustment shall be to the Superior Court of Pitt County.

(H) A civil action must be filed within three years of the date the assessment was due. An assessment that is not contested is due when the violator is served with a notice of assessment. An assessment that is contested is due at the conclusion of the administrative and judicial review of the assessment.

(I) Civil penalties collected pursuant to this chapter shall be credited to the Civil Penalty and Forfeiture Fund.
(Ord. No. 06-50, § 14, passed 6-8-2006)

(J) Any person who knowingly or willfully violates any provisions of this chapter or who knowingly or willfully initiates or continues a land-disturbing activity for which a plan is required, except in accordance with the terms, conditions, and provisions of an approved plan, shall be guilty of a Class 2 misdemeanor and may be subject to a fine not to exceed \$5,000.

(K) A violation of this chapter that is not knowing or not willful shall not constitute a misdemeanor or infraction punishable under North Carolina G.S. 14-4, but instead shall be subject to the civil penalties provided in this section.
(Ord. No. 98-7, passed 1-8-1998; Ord. No. 99-119, § 17, passed 9-9-1999)

SEC. 9-8-21 INJUNCTIVE RELIEF.

(A) Whenever the City Engineer has reasonable cause to believe that any person is violating or threatening to violate this chapter or any rule or order adopted or issued pursuant to this chapter or any term, condition or provision of an approved erosion control plan, it may, either before or after institution of any other action or proceeding authorized by this chapter, institute a civil action in the name of the city for injunctive relief to restrain the violation or threatened violation. The action shall be brought in the Superior Court of Pitt County.

(B) Upon determination by a court that an alleged violation is occurring or is threatened the court shall enter any order or judgment that is necessary to abate the violation, to ensure that restoration is performed, or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to the proceedings from any civil or criminal penalty prescribed for violations of this chapter.
(Ord. No. 98-7, passed 1-8-1998; Ord. No. 99-119, §§ 19, 20, passed 9-9-1999)

SEC. 9-8-22 RESTORATION OF AREAS AFFECTED BY FAILURE TO COMPLY.

The City Engineer may require a person who engaged in a land-disturbing activity and failed to retain sediment generated by the activity, as required by G.S. 113A-57(3), to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by sedimentation. This authority is in addition to any other civil or criminal penalty or injunctive relief authorized under this chapter.
(Ord. No. 98-7, passed 1-8-1998; Ord. No. 99-119, §§ 21, 22, passed 9-9-1999)

SEC. 9-8-23 SEVERABILITY.

If any section or sections of this chapter is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.
(Ord. No. 98-7, § 1, passed 1-8-1998)

CHAPTER 9: STORMWATER MANAGEMENT AND CONTROL

Section

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SEC. 9-9-1 TITLE.

This chapter shall be known and may be cited as the City of Greenville's "Stormwater Management and Control Ordinance" or this chapter.
(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-2 PURPOSES.

(A) This chapter is adopted for the purposes of:

- (1) Protecting the public health, safety and welfare by controlling the discharge of pollutants into the stormwater conveyance system;
- (2) Promoting the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by regulations designed to control the rate of release of stormwater runoff of certain developments where the rate of runoff has been significantly increased;
- (3) Promoting activities directed toward the maintenance and improvement of surface and ground water quality;
- (4) To protect the riparian buffer along all intermittent and perennial streams;
- (5) Limiting the nitrogen and phosphorus load from new development;
- (6) Satisfying the requirements imposed upon the City of Greenville under the Tar-Pamlico Stormwater Rule (15A NCAC 2B .0258) and the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) discharge permit issued by the state; and
- (7) Establishing administration and enforcement procedures through which these purposes can be fulfilled.

(B) The provisions of this chapter are supplemental to regulations administered by federal and state governments. (Ord. No. 04-112, passed 9-9-2004; Ord. No. 11-006, § 1, passed 1-13-2011)

SEC. 9-9-3 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

Best management practices (BMPs). Structural and/or non-structural controls that temporarily store or treat stormwater runoff, which act to reduce flooding, remove pollutants, and provide other amenities.

Built-upon area (BUA). That portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel areas (e.g., roads, parking lots, paths), recreation facilities (e.g., tennis courts) and the like. (Note: wooden slatted decks and the water area of a swimming pool are considered pervious.)

City. The City of Greenville, North Carolina.

Detention facility (dry). A facility, constructed for the purpose of detaining stormwater runoff from a developed site to control the peak discharge rates, that is normally maintained as a dry basin.

Detention facility (wet). A facility, constructed for the purpose of detaining stormwater runoff from a developed site to control the peak discharge rates, that is normally maintained with a permanent pool of water.

Ditch. An open channel constructed to transfer stormwater from one area to another. This does not include any open channel that is classified as a perennial or intermittent stream.

Drainage easement. The land required for the installation of stormwater drainage facilities and/or along a natural stream or watercourse for preserving the channel and providing access for maintenance and operation.

Drainage facilities. All ditches, channels, conduits, retention-detention systems, tiles, swales, sewers, and other natural or artificial means of draining stormwater from land.

Drainage requirements.

- (1) Minimum drainage standards as established by this chapter;
- (2) Regulations promulgated by the Public Works Department of the city;
- (3) Obligations and requirements relating to drainage established under the Subdivision Control Ordinance of the city, as set forth in Title 9, Chapter 5;
- (4) Requirements stated under the Zoning Ordinance of the city as set forth in Title 9, Chapter 4, including floodway zoning requirements; and
- (5) Conditions relating to drainage attached to a grant of variance by the Board of Adjustment of the city.

Drainage (subsurface). A system of pipes, tile, conduit or tubing installed beneath the ground surface used to collect underground water from individual parcels, lots, building footings or pavements.

Drainage (surface). A system by which the stormwater runoff is conducted to an outlet. This would include the proper grading of parking lots, streets, driveways and yards so that stormwater runoff is removed without ponding and flows to a drainage swale, open ditch or a storm sewer.

Drainage (swale). A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from a field, diversion or other site feature.

Drainage system. Any combination of surface and/or subsurface drainage components fulfilling the drainage requirements of this chapter.

Easement. A grant by the property owner of the use of a strip of land by the public, a corporation, or persons, for specified purposes.

Engineer. The City Engineer of the City of Greenville, North Carolina.

Extraterritorial jurisdiction. The area beyond the city limits within which the planning, zoning and building regulations of the city apply in accordance with state law. The area is delineated on the official zoning map for the city.

Impervious surfaces. Those areas within developed land that prevent or significantly impede the infiltration of stormwater into the soil. Common “impervious surfaces” include but are not limited to roof tops, sidewalks, walkways, patio areas, roads, driveways, parking lots, storage areas, brick or concrete pavers, compacted gravel surfaces (roads, driveways, parking and storage areas), and other surfaces which prevent or significantly impede the natural infiltration of stormwater into the soil.

Illicit connection. Any unlawful connection that allows the discharge of non-stormwater to the stormwater conveyance system or waters of the state in violation of this chapter.

Illicit discharge. Any unlawful disposal, placement, emptying, dumping, spillage, leakage, pumping, pouring, emission or other discharge of any substance other than stormwater, unless associated with permitted activity as identified in section 9-9-16(A), into a stormwater conveyance, the waters of the state, or upon the land in such proximity to the same, such that the substance is likely to reach a stormwater conveyance or the waters of the state.

Jurisdictional stream. A stream that has been determined to be either permanent or intermittent by North Carolina Division of Environment and Natural Resources. These features have flora and fauna that are characteristic of streams in undeveloped areas.

Land-disturbing activity. 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.

Land preservation. The permanent dedication of development rights for conservation purposes to a third party on currently undeveloped property contained wholly within one parcel as registered with Pitt County or a portion of a developed parcel that is permanently dedication to a third party for conservation purposes.

Maintenance. Cleaning, spraying, removing obstructions from and making minor repairs to a drainage facility so that it will perform the function for which it was designed and constructed.

Municipal separate storm sewer system (MS4). A stormwater conveyance or unified stormwater conveyance system (including without limitation: roads with drainage systems, municipal streets, catch basins, stormwater detention facilities, curbs, gutters, ditches, natural or man-made channels, or storm drains), that:

- (1) Is located within the corporate limits of Greenville, North Carolina;
- (2) Is owned or operated by the state, county, the city or other public body; and
- (3) Discharges to waters of the state, excluding publicly owned treatment works, and lawful connections thereto, which in turn discharge into the waters of the state.

New development. The following:

- (1) Any activity including grubbing, stump removal and/or grading that disturbs greater than one acre of land to establish, expand or replace a single-family or duplex residential development or recreational facility. For

individual single-family residential lots of record that are not part of a larger common plan of development or sale, the activity must also result in greater than 10% built-upon area.

- (2) Any activity including grubbing, stump removal and/or grading that disturbs greater than one-half an acre of land to establish, expand or replace a multi-family residential development or a commercial, industrial or institutional facility.
- (3) Projects meeting subsection (1) or (2) above that replace or expand existing structures or improvements and that do not result in a net increase in built-upon area shall not be required to meet the basinwide average non-urban loading levels.
- (4) Projects meeting subsection (1) or (2) above that replace or expand existing structures or improvements and that result in a net increase in built-upon area shall achieve a 30% reduction in nitrogen loading and no increase in phosphorus loading relative to the previous development. Such projects may achieve these loads through onsite or offsite measures or some combination thereof.
- (5) New development shall not include agriculture, mining, or forestry activities.

Non-jurisdictional stream. A stream that has been determined to be neither permanent nor intermittent by North Carolina Division of Environment and Natural Resources. These features do not have the flora and fauna that are characteristic of streams in undeveloped areas.

NPDES or National Pollutant Discharge Elimination System. A Federal Environmental Protection Agency program initiated to reduce and eliminate pollutants reaching water bodies of all types.

Open channel. A drainage channel, which may or may not have a continuous water flow. Intended to convey surface, subsurface and stormwater runoff.

Pollution. A man-made or man-induced alteration of the chemical, physical, biological, thermal, and/or radiological integrity of water.

Qualified professional. An individual who both: has received a baccalaureate or postgraduate degree in the natural sciences or engineering; and is trained and experienced in stormwater treatment techniques and related fields as may be demonstrated by state registration, professional certification, or completion of coursework that enable the individual to make sound, professional judgments regarding stormwater control/treatment and drainage planning.

Redevelopment. Any rebuilding activity other than a rebuilding activity that:

- (1) Results in no net increase in built-upon area; and
- (2) Provides equal or greater stormwater control than the previous development.

Registered professional. An individual who is registered in the State of North Carolina as a professional engineer.

Riparian buffer. The 50-foot wide area directly adjacent to surface waters in the Tar-Pamlico and Neuse River Basins (intermittent streams, perennial streams, lakes, ponds and estuaries), excluding wetlands. For the purpose of this definition, a surface water shall be present if the feature is approximately shown on either the most recent version of the soil survey map by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS).

Stormwater. The runoff from precipitation that travels over natural or developed surfaces to the nearest stream, other conduit, or impoundment and appears in lakes, rivers, ponds, or other bodies of water.

Stormwater and drainage systems. Natural and structural channels, swales, ditches, swamps, rivers, streams, creeks, branches, reservoirs, ponds, drainage ways, inlets, catch basins, pipes, head walls, storm sewers, lakes, and other physical works, properties, and improvements which transfer, control, convey or otherwise influence the movement of stormwater runoff.

Stormwater management programs. Programs designed to protect water quality by controlling the level of pollutants in, and the quantity and flow of, stormwater.

Waters of the state. Any stream, river, brook, swamp, lake, sound, tidal estuary, bay, creek, reservoir, waterway, or other body or accumulation of water, whether surface or underground, public or private, or natural or artificial, that is contained in, flows through, or borders upon any portion of this state, including any portion of the Atlantic Ocean over which the state has jurisdiction. Treatment systems, consisting of man-made bodies of water, which were not originally created in waters of the state and which are not the result of impoundment of waters of the state, are not “waters of the state.”

(Ord. No. 04-112, passed 9-9-2004; Ord. No. 11-006, § 2, passed 1-13-2011)

SEC. 9-9-4 SCOPE; EXCLUSIONS.

This chapter shall apply within the city limits of the city and within the extraterritorial jurisdiction of the city, with the following exclusions:

(A) Any area or subject matter where federal, state or local government, including their agencies, have jurisdiction preempting the city unless intergovernmental agreements have been established giving the city enforcement authority.

(B) All new development projects that have received approval from the city for a site-specific or phased development plan before September 10, 2004, and that have implemented the development project in accordance with the vesting provisions of the Greenville City Code shall be exempt from the requirements of the Tar-Pamlico stormwater rule. Any preliminary plats associated with such development approved before September 10, 2004 must be recorded no later than five years from the date of approval in accordance with section 9-5-43. Any building permit related to a site plan associated with such development approved before September 10, 2004 must be applied for no later than two years from the approval of the site plan in accordance with section 9-4-34. Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be considered exempt if a state permit was issued prior to September 10, 2004.

(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-5 OBJECTIVES.

The objectives of this chapter are to:

(A) Regulate the discharge of substances, which may contaminate or cause pollution of stormwater, stormwater conveyances or waters of the state;

(B) Reduce impacts on the city’s MS4 and receiving waters from increased runoff from new development and redevelopment;

(C) Regulate connections to the stormwater conveyance system;

(D) Provide for the proper handling of spills; and

(E) Provide for the enforcement of same.

(Ord. No. 04-112, passed 9-9-2004; Ord. No. 13-054, § 1, passed 10-10-2013)

SEC. 9-9-6 PROTECTION OF RIPARIAN AREAS.

(A) The Tar-Pamlico riparian buffer protection rule, 15A NCAC 2B .0259 requires that 50-foot riparian buffers be maintained on all sides of intermittent and perennial streams, ponds, lakes and estuarine waters in the basin. The buffer rule provides for certain “allowable” uses within the buffer with Division of Water Quality approval, such as road and utility crossings.

(B) The city shall disapprove any new development activity proposed within the first 50 feet adjacent to a waterbody that is shown on either the USGS 7.5 minute topographic map or the NRCS soil survey map unless the owner can show that the activity has been approved by Division of Water Quality. Division of Water Quality approval may consist of the following:

- (1) An on-site determination that surface waters are not present;
- (2) An authorization certificate from Division of Water Quality for an “allowable” use such as a road crossing or utility line, or for a use that is “allowable with mitigation” along with a Division-approved mitigation plan. A table delineating such uses is included in the buffer rule;
- (3) An opinion from Division of Water Quality that vested rights have been established for the proposed development activity; and/or
- (4) A letter from Division of Water Quality documenting that a variance has been approved for the proposed development activity.

(C) After site development, it shall be the responsibility of the landowner or person in possession or control of the land to properly maintain all necessary permanent erosion and sediment control measures installed for the protection of the riparian buffers.

(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-7 CALCULATING NITROGEN AND PHOSPHORUS EXPORT.

(A) The nitrogen and phosphorus export from each new development within the Tar-Pamlico River Basin must be calculated. The nitrogen export from each new development outside the Tar-Pamlico River Basin must be calculated. These exports will be calculated in pounds per acre per year (lbs/ac/yr). Worksheets to carry out this method are provided in the city’s Stormwater Management Program and shall be provided along with a description of the development. It is the responsibility of the person proposing the development to calculate and submit this information to the city.

(B) For a given project, the methodology calculates a weighted annual load export for both nitrogen and phosphorus based on event mean concentrations of runoff from different urban land covers and user-supplied acreages for those land covers. All new developments must achieve a nitrogen export of less than or equal to 4.0 lbs/ac/yr and a phosphorus export of less than or equal to 0.4 lbs/ac/yr. The applicant chooses BMPs that reduce the export to required levels.

(C) All plans shall be prepared by and sealed by a registered professional who certifies under seal that the plan, including engineering detail, conforms to the minimum requirements established by this chapter.

(D) The review of all plans and applications submitted to the city will be overseen by the City Engineer.

(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-8 BEST MANAGEMENT PRACTICES (BMPS) AND MAINTENANCE.

(A) Best management practices in any new development shall be the entire and sole responsibility of the landowner except those natural streams, channels, ditches, branches and drainage outfall lines for which the city has accepted the responsibility for continuous maintenance.

(B) For residential (or commercial or industrial) development:

- (1) If the computed nitrogen export is greater than 6.0 (or 10.0) lbs/ac/yr, then the landowner must either use on-site BMPs or take part in an approved regional or jurisdiction-wide stormwater strategy or some combination of these to lower the nitrogen export to at least 6.0 (or 10.0) lbs/ac/yr. The owner may then use one of the following two options to reduce nitrogen from 6.0 (or 10.0) to 4.0 lbs/ac/yr.
- (2) If the computed nitrogen export is greater than 4.0 lbs/ac/yr but less than 6.0 (or 10.0) lbs/ac/yr, then the owner may either:
 - (a) Install BMPs on-site or take part in an approved regional or jurisdiction-wide stormwater strategy or some combination of these to remove nitrogen down to 4.0 lbs/ac/yr; or
 - (b) Provide treatment of an off-site developed area that drains to the same stream to achieve the same nitrogen mass loading reduction that would have occurred on-site.
- (3) The landowner must install BMPs that also achieve a phosphorus export of less than or equal to 0.4 lbs/ac/yr, but may do so through any combination of on-site and off-site measures.

(C) Each BMP shall be constructed to meet the requirements of the city's Stormwater Management Program and shall have a maintenance plan.

(D) Each maintenance plan shall be on file in the office of the City Engineer. Maintenance plans must be on file prior to construction and shall contain the following information:

- (1) Owner's name or names;
- (2) Owner's mailing address;
- (3) Deed book, page number or other recording information for the land containing the BMP(s);
- (4) Any easements for maintenance, ingress, egress and regress to the BMP(s);
- (5) A description of the BMP(s);
- (6) Maintenance recommended for the BMP(s) to achieve the maximum effect; and
- (7) Notarized signature of the owner of the BMP(s) and statement that the owner understands the requirements of the rules and regulations for the BMP(s).

(E) Each BMP shall be maintained as required in the maintenance plan as to allow the BMP to achieve its maximum effect. Maintenance is to be performed as needed.

(F) Maintenance of the BMP includes maintaining access for the stormwater to reach and leave the BMP, maintenance of the BMP structure itself, and maintaining access to the BMP for the purpose of inspections, maintenance and repairs.

(G) An annual maintenance and inspection report completed by a qualified professional shall be maintained by the owner for each BMP in accordance with the operation and maintenance agreement submitted in the initial plan submittal. The annual report will describe the maintenance and repair activities of the subject year, including copies of inspection and repair logs, and note any needed modifications to the repair plan for the following year. Annual reports shall be kept on record for a minimum of five years and shall be made available to the city upon request.

(H) All BMP(s) shall be inspected annually by the city. If repairs or maintenance to the BMP is required, the city will notify the property owner in writing that maintenance is required. The owner will have 90 days from the receipt of such written notice to bring the BMP into proper working order.

(I) If any person, having been ordered to perform such maintenance, fails, neglects or refuses to perform the maintenance within 90 days from receipt of the order, the Public Works Director shall, at his or her own discretion, have employees of the city or other designated persons go upon said premises and perform the necessary maintenance.

(J) The cost of repairs and work completed by the city shall be the responsibility of the owner. The city will submit a statement of charges to be reimbursed by the owner. The owner shall have 30 days to remit payment.
(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-9 OFF-SITE PARTIAL OFFSET OPTION.

Landowners shall have the option of partially offsetting their nitrogen and phosphorus loads by providing treatment of off-site developed areas. The off-site area must drain to the same classified surface water, as defined in the Schedule of Classifications, 15A NCAC 2B .0316, that the development site drains to most directly. The developer must provide legal assurance of the dedicated use of the off-site area for the purposes described here, including achievement of specified nutrient load reductions and provision for regular operation and maintenance activities, in perpetuity. The legal assurance shall include an instrument, such as a conservation easement, that maintains this restriction upon change of ownership or modification of the off-site property. Before using off-site treatment, the new development must attain a maximum nitrogen export of six pounds/acre/year for residential development and ten pounds/acre/year for commercial or industrial development.
(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-10 ATTENUATION REQUIREMENTS.

(A) At a minimum, new development and redevelopment as described in section 9-9-3 shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, five-year and ten-year, 24-hour storm events.

(B) New development and redevelopment, as described in § 9-9-3, in areas at special risk with well documented water quantity problems as determined by the City Engineer, shall not result in a net increase in peak flow leaving the site from pre-development conditions for the 25-year, 24-hour storm event.

(C) Peak flow leaving the site from pre-development conditions for the one-year, five-year, ten-year and 25-year, 24-hour storm events shall be calculated, and the plan shall be prepared and approved using the standards of the City Engineer, as set forth in the city's *Manual of Standard Designs and Details* and stormwater management program.

(D) The drainage plan as required by this section shall include but not be limited to a site plan showing existing proposed buildings, storm drainage facilities, ground cover, site construction plans with grading plan, and drainage system; drainage facility design data including area map, engineering calculations, area of impervious cover and total land area.

(E) In the event that literal interpretation of this section creates an undue hardship, the applicant may appeal to the Board of Adjustment for a variance in whole or in part from this section.

(F) No part of this section shall be applied to structures existing prior to the effective date of this section nor shall existing impervious ground cover be used in the calculation of runoff.
(Ord. No. 04-112, passed 9-9-2004; Ord. No. 13-054, § 2, passed 10-10-2013)

SEC. 9-9-11 EXCEPTIONS TO PEAK FLOW REQUIREMENT.

Peak flow control is not required for developments that meet one or more of the following requirements:

(A) The increase in peak flow between pre- and post-development conditions does not exceed 10% (note that this exemption makes it easier to conduct redevelopment activities); or

(B) The development occurs in a part of a drainage basin where stormwater detention can aggravate local flooding problems as determined by the city.
(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-12 NEW SUBDIVISIONS.

Storm drainage systems in any new subdivision shall be the entire and sole responsibility of the developer except those natural streams, channels, ditches, branches and drainage outfall lines for which the city has accepted the responsibility for

continuous maintenance. All new subdivisions shall have drainage systems installed by the developer in accordance with Title 9, Chapter 5 of this Code. Any drainage ditch in a new subdivision that will require a 48-inch diameter or smaller pipe must be piped. Larger ditches may be left open. The required pipe size shall be as determined by the engineer for the developer and approved by the City Engineering Division.

(Ord. No. 04-112, passed 9-9-2004; Ord. No. 11-006, § 3, passed 1-13-2011)

SEC. 9-9-13 DRAINAGE PROJECTS LOCATED OUTSIDE OF CITY-OWNED RIGHTS-OF-WAY.

(A) *Drainage projects on ditches or non-jurisdictional streams; piping.* The city will participate with property owners in the installation of storm drains crossing private property in other than new subdivisions within the city's corporate limits under the following conditions:

- (1) The storm drain to be installed will carry stormwater discharged from an existing city or state street or streets dedicated for public street purposes, including alleys, and accepted for maintenance by the city or state. Storm drainage systems not meeting this requirement are the responsibility of the property owner(s) and the city will not participate in the installation of such storm drains.
- (2) An application for the installation of storm drains must be signed by 100% of the owners of the affected property within the limits of the proposed project and submitted to the City Engineering Division.
- (3) The property owners must dedicate a drainage easement of a width, length, and type as specified by the Director of Public Works. The dedication of such easement will be at no cost to the city.
- (4) The shortest distance in which the city will participate in the installation of storm drainage will be 300 linear feet; any shorter distances than 300 linear feet must be deemed feasible by the City Engineering Division before city participation.
- (5) All pipe sizes, structural accessories, discharge points and other specifications shall be as determined by the City Engineering Division.
- (6) The city will furnish all labor and equipment and the adjoining property owners will pay for all materials for construction. These materials shall be as determined necessary by the City Engineering Division and shall include headwalls, manholes, catch basins and all other structures normal to a complete storm drainage system. All monies for materials must be deposited by property owners before construction is started.
- (7) All authorized work shall be performed by the city, its agents and/or contractors. The city will direct all necessary activities including but not limited to design, engineering, contracting, and construction.
- (8) Nothing in this subsection (A) shall be construed, interpreted or applied in a manner to mean that the city will participate in any way in the construction of any box culvert or other structure to be built or constructed in place. The piping of streams shall be restricted in all instances to that drainage where pre-cast or preassembled pipe will be of sufficient capacity, as calculated by the City Engineering Department, for the piping and enclosing herein mentioned and contemplated.
- (9) Cost for each property owner shall be determined by dividing the total cost of materials by the total footage of property owners adjoining the proposed pipe locations directly and multiplying the result by the footage of each individual owner to determine his share of the cost.
- (10) All storm drainage construction on private property shall be done on a scheduled basis so as not to interfere with other city projects and then only as budgeted funds of the city are available.
- (11) The city will not participate in the construction of any storm drainage systems which will require a pipe size larger than 48 inches due to the greatly increased cost of labor, equipment and engineering required due to the use of box culverts, paved channels and other types of solutions.

(B) *Drainage projects on ditches or non-jurisdictional streams; erosion.* The city will stabilize banks on ditches or non-jurisdictional streams crossing private property in other than new subdivisions within the city's corporate limits under the following conditions:

- (1) The ditch or non-jurisdictional stream carries stormwater discharged from an existing city or state street or streets dedicated for public street purposes, including alleys, and accepted for maintenance by the city or state. Storm drainage systems not meeting this requirement are the responsibility of the property owner(s) and the city will not participate in such drainage projects.
- (2) An application for bank stabilization must be signed by 100% of the owners of the affected property within the limits of the proposed project and submitted to the City Engineering Division.
- (3) The property owners must dedicate a drainage easement of a width, length, and type as specified by the Director of Public Works. The dedication of such easement will be at no cost to the city.
- (4) Materials and construction methods shall be as determined necessary by the City Engineering Division. All authorized work shall be performed by the city, its agents and/or contractors. The city will direct all necessary activities including but not limited to design, engineering, contracting, and construction.
- (5) All drainage projects on private property shall be done on a scheduled basis so as not to interfere with other city projects and then only as budgeted funds of the city are available.

(C) *Drainage projects on jurisdictional streams; piping.* The city will not participate in the piping of jurisdictional streams.

(D) *Drainage projects on jurisdictional streams; erosion.* The city will stabilize or restore banks crossing private property in other than new subdivisions within the city's corporate limits under the following conditions:

- (1) The jurisdictional stream carries stormwater discharged from an existing city or state street or streets dedicated for public street purposes, including alleys, and accepted for maintenance by the city or state. Storm drainage systems not meeting this requirement are the responsibility of the property owner(s) and the city will not participate in such drainage projects.
- (2) An application for bank stabilization or stream restoration must be signed by 100% of the owners of the affected property within the limits of the proposed project.
- (3) The property owners must dedicate a drainage easement of a width, length, and type as specified by the Director of Public Works. The dedication of such easement will be at no cost to the city.
- (4) Materials and construction methods shall be as determined necessary by the City Engineering Division. All authorized work shall be performed by the city, its agents and/or contractors. The city will direct all necessary activities including but not limited to design, engineering, contracting, and construction.
- (5) All drainage projects on private property shall be done on a scheduled basis so as not to interfere with other city projects and then only as budgeted funds of the city are available.

(E) Drainage assistance projects listed in subsections (A), (B) and (D) above may be funded with stormwater utility funds or other funds provided that all of the following eligibility criteria are met:

- (1) The drainage system is not part of a water quality treatment facility or water quantity control device that was required to be constructed and maintained as part of an approved development.
- (2) The drainage system is not located on property which is undergoing development or redevelopment unless the development/redevelopment project is funded in part by other city funds.

- (3) The project shall be the most cost effective, reasonable and practical alternative to correct the existing problem, as determined by the Director of Public Works. Any excess costs above the determined most cost effective, reasonable and practical alternative shall be borne entirely by the property owner. Design criteria shall meet, but are not limited to, the following criteria:
 - (a) The proposed project shall meet current city stormwater design standards to the maximum extent practical;
 - (b) Existing ditches or non-jurisdictional streams shall not be piped unless engineering reasons require such work or significant cost savings would be realized; and
 - (c) Jurisdictional streams and their associated buffers shall be protected to the maximum extent practical.
- (4) The application of the above factors and the determination as to eligibility for stormwater utility funding or other funding shall be made by the Director of Public Works. Property owners may appeal any decision by the Director of Public Works to the City Manager. If property owners are not satisfied with the decision of the City Manager, property owners may appeal any decision by the City Manager to City Council.

(F) Storm drainage crossing private property, which does not carry storm drainage from existing city or state system streets, dedicated for public street purposes and accepted for maintenance by the city or state, is the responsibility of the property owners and the city will not participate in the installation of storm drains therefore.

(G) No action or inaction of the city pursuant to the policy established by this section shall impose upon the city, its agents, officers or employees any responsibility of liability of any kind, past or future, relating to any person or property. The petitioners shall agree to covenant to and hold the city harmless from any death, personal injury or property damage resulting from the work. No such action by the city shall be considered as a taking or appropriation of any stream, drain or ditch as a part of the city's drainage system.

(H) The conditions set forth in this section shall be binding on the heirs, successors, assigns and grantees of the property owners.

(I) Nothing in this section shall be construed, interpreted or applied in such manner as to aid or assist in the subdivision or development of property in the city. The policy set out herein shall be applicable only to those properties for which no new subdivision or development is anticipated or planned.

(J) The intent of this section is not to transfer responsibility or liability to the city for drainage system components on property not owned by the city that carry stormwater. Rather, it is to establish criteria and priorities to be used when making available funds for work on drainage system components located outside of city-owned rights-of-way.

(K) City participation in work on drainage system components outside of the right-of-way is limited to the extent to which funds are available for such purpose and no entitlement to receive funds for such work arises from this section. (Ord. No. 11-006, § 4, passed 1-13-2011)

SEC. 9-9-14 ACCEPTANCE OF RESPONSIBILITY FOR CERTAIN STORMWATER CONVEYANCES BY CITY.

(A) The city accepts the responsibility for the maintenance, upkeep and installation of necessary structures, located within a city right-of-way within the city's corporate limits and not within a state right-of-way, in the following natural streams as listed below:

- (1) Greens Mill Run, Tar River westerly to city limits west of Memorial Drive;
- (2) Fornes Branch, from Greens Mill Run to NC 43;

- (3) Reedy Branch, from Greens Mill Run to Greenville Boulevard; and
- (4) Any other jurisdictional stream located within the city's corporate limits in which the city has participated in a drainage project pursuant to the provisions of this chapter only within the limits of such project.

(B) The responsibility of the city for the maintenance of streams, located within the city's corporate limits and not within a state right-of-way, includes only the removal of trees that block the flow of the stream. The city will only remove that portion of a tree that is blocking or is an imminent threat to block stream flow. Property owners are responsible for maintaining the vegetation to the standards established by the state (riparian buffer rule). Removal of trash in a stream is the property owner's responsibility including in any adjoining right-of-way.

(Ord. No. 11-006, § 5, passed 1-13-2011)

SEC. 9-9-15 DUTY OF CITY ENGINEER TO MAKE DECISIONS ON APPLICATION OF POLICY.

All decisions concerning application of the stormwater management and control policy and any matters related to the policy shall be the responsibility of the City Engineer.

(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-16 ILLICIT DISCHARGES AND CONNECTIONS.

(A) *Illicit discharges.*

- (1) No person shall cause or allow the discharge, emission, disposal, pouring or pumping directly or indirectly to any stormwater conveyance, the waters of the state, or upon the land in such proximity to the same (such that the substance is likely to reach a stormwater conveyance or the waters of the state), of any fluid, solid, gas or other substance, other than stormwater; provided that non-stormwater discharges associated with the following activities are allowed and provided that they do not significantly impact water quality:
 - (a) Filter backwash and draining associated with swimming pools;
 - (b) Filter backwash and draining associated with raw water intake screening and filtering devices;
 - (c) Condensate from residential or commercial air conditioning;
 - (d) Residential vehicle washing;
 - (e) Flushing and hydrostatic testing water associated with utility distribution systems;
 - (f) Discharges associated with emergency removal and treatment activities, for hazardous materials, authorized by the federal, state or local government on-scene coordinator;

- (g) Uncontaminated ground water (including the collection or pumping of springs, wells, or rising ground water and ground water generated by well construction or other construction activities);
 - (h) Collected infiltrated stormwater from foundation or footing drains;
 - (i) Collected ground water and infiltrated stormwater from basement or crawl space pumps;
 - (j) Irrigation water;
 - (k) Street wash water;
 - (l) Flows from fire fighting;
 - (m) Discharges from the pumping or draining of natural watercourses or waterbodies;
 - (n) Flushing and cleaning of stormwater conveyances with unmodified potable water;
 - (o) Wash water from the cleaning of the exterior of buildings, including gutters, provided that the discharge does not pose an environmental or health threat; and
 - (p) Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by Department of Environmental Management, and provided that any such discharges to the Municipal Separate Storm Sewer System shall be authorized by the city.
- (2) Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal waste, paints, garbage and litter.

(B) *Illicit connections.*

- (1) Connections to a stormwater conveyance or stormwater conveyance system that allow the discharge of non-stormwater, other than the exclusions described in subsection (A) above, are unlawful. Prohibited connections include but are not limited to: floor drains, waste water from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and waste water from septic systems.
- (2) Where such connections exist in violation of this section and the connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property owner or the person using the connection shall remove the connection within one year following application of this regulation; provided that this grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety, or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife or habitat.
- (3) Where it is determined that the connection:
 - (a) May result in the discharge of hazardous materials or may pose an immediate threat to health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife or habitat; or
 - (b) Was made in violation of any applicable regulation or ordinance, the City Engineer or his or her designee shall designate the time within which the connection shall be removed. In setting the time limit for compliance, the city shall take into consideration:
 - 1. The quantity and complexity of the work;
 - 2. The consequences of delay;

3. The potential harm to the environment, to the public health, and to public and private property; and
4. The cost of remedying the damage.

(C) *Spills.*

- (1) Spills or leaks of polluting substances discharged to, or having the potential to be indirectly transported to the stormwater conveyance system, shall be contained, controlled, collected and removed promptly. All affected areas shall be restored to their preexisting condition.
- (2) Persons associated with the spill or leak shall immediately notify the City Fire Chief or his or her designee of all spills or leaks of polluting substances. Notification shall not relieve any person of any expenses related to the restoration, loss, damage or any other liability which may be incurred as a result of the spill or leak, nor shall such notification relieve any person from other liability which may be imposed by state or other law.

(D) *Nuisance.* Illicit discharges and illicit connections which exist within the city limits or within one mile thereof are hereby found, deemed and declared to be dangerous or prejudiced to the public health or public safety and are found, deemed and declared to be public nuisances. Such public nuisances shall be abated in accordance with the procedures set forth in section 12-3-4.

(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-17 ENFORCEMENT.

(A) *Authority to enter.*

- (1) Any authorized city personnel shall be permitted to enter upon public or private property for the purposes of observation, inspection, sampling, monitoring, testing, surveying and measuring for compliance. Should the owner or occupant of any property refuse to permit such reasonable access, the City Engineer or his or her designee shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor.
- (2) No person shall obstruct, hamper or interfere with any such representative while carrying out his or her official duties. For the purpose of enforcing this chapter, the City Engineer or any employee so designated by him or her may at any time enter upon a property to inspect or repair any part of the stormwater system.

(B) *Civil penalties.*

- (1) *Illicit discharges.* Any designer, engineer, contractor, agent or any other person who allows, acts in concert, participates, directs or assists directly or indirectly in an illicit discharge in violation of this chapter shall be subject to civil penalties as follows.
 - (a) For first-time offenders, if the quantity of the discharge is equal to or less than five gallons and consists of domestic or household products in quantities considered ordinary for household purposes, the person shall be assessed a civil penalty not to exceed \$100 per violation or per day for any continuing violation, and if the quantity of the discharge is greater than five gallons or contains non-domestic substances, including but not limited to process waste water, or if the person cannot provide clear and convincing evidence of the volume and nature of the substance discharged, the person shall be assessed a civil penalty not to exceed \$1,000 per violation or per day for any continuing violation.
 - (b) For repeat offenders, the amount of the penalty shall be double the amount assessed for the previous penalty, not to exceed \$10,000 per violation or per day for any continuing violation.
 - (c) In determining the amount of the penalty, the City Engineer or his or her designee shall consider:
 1. The degree and extent of harm to the environment, the public health, and public and private property;

2. The cost of remedying the damage;
 3. The duration of the violation;
 4. Whether the violation was willful;
 5. The prior record of the person responsible for the violation in complying or failing to comply with this chapter;
 6. The costs of enforcement to the public; and
 7. The amount of money saved by the violator through his, her or its noncompliance.
- (2) *Illicit connections.* Any person found with an illicit connection in violation of this chapter and any designer, engineer, contractor, agent or any other person who allows, acts in concert, participates, directs or assists directly or indirectly in the establishment of an illicit connection in violation of this chapter, shall be subject to civil penalties as follows:
- (a) First-time offenders shall be subject to a civil penalty not to exceed \$500 per day of continuing violation.
 - (b) Repeat violators shall be subject to a civil penalty not to exceed \$1,000 per day of continuing violation.
 - (c) In determining the amount of the penalty, the City Engineer or his or her designee shall consider:
 1. The degree and extent of harm to the environment, the public health, and public and private property;
 2. The cost of remedying the damage;
 3. The duration of the violation;
 4. Whether the violation was willful;
 5. The prior record of the person responsible for the violation in complying or failing to comply with this chapter;
 6. The costs of enforcement to the public; and
 7. The amount of money saved by the violator through his, her or its noncompliance.
 - (d) Procedures for assessing penalties pursuant to illicit connections.
 1. The penalties shall be assessed by the City Engineer or his or her designee. No penalty shall be assessed until the person alleged to be in violation is served written notice of the violation by registered mail, certified mail-return receipt requested, or personal service. Refusal to accept the notice shall not relieve the violator of the obligation to pay the penalty. The notice shall describe the violation with particularity and specify the measures needed to come into compliance. The notice shall designate the time within which the measures must be completed. In setting the time limit for compliance, the city shall take into consideration:
 - a. The quantity and complexity of the work;
 - b. The consequences of delay;
 - c. The potential harm to the environment, the public health, and public and private property; and

- d. The cost of remedying the damage.
- 2. The notice shall warn that failure to correct the violation within the specified time period will result in the assessment of a civil penalty and/or other enforcement action. If after the allotted time period has expired, and the violation has not been corrected, the penalty shall be assessed from the date of receipt of notice of violation and each day of continuing violation thereafter shall constitute a separate violation under this section.
- (3) *Other violations.* Any person found in violation of other provisions of this chapter, not specifically enumerated elsewhere, shall be subject to a civil penalty not to exceed \$250 per violation or per day for any continuing violation.
- (4) *Payment/collection procedures.* Penalties shall be assessed by the City Engineer or his or her designee. No penalty shall be assessed until the person alleged to be in violation is served written notice of the violation by registered mail, certified mail-return receipt requested, or personal service. Refusal to accept the notice shall not relieve the violator of the obligation to pay the penalty. The City Engineer or his or her designee shall make written demand for payment upon the person in violation. If the payment is not received or equitable settlement reached within 30 days after demand for payment is made, the matter shall be referred to the City Attorney for institution of a civil action in the name of the city, in the appropriate division of the general court of justice in Pitt County for recovering the penalty.

(C) *Injunctive relief.*

- (1) Whenever the City Engineer has a reasonable cause to believe that any person is violating or threatening to violate this chapter, rule, regulation, order duly adopted or issued pursuant to this chapter or making a connection to a stormwater conveyance or stormwater conveyance system other than in accordance with the terms, conditions, and provisions of approval, the city may, either before or after the institution of any other action or proceeding authorized by the code, institute a civil action in the name of the city for injunctive relief to restrain and abate the violation or threatened violation.
- (2) The institution of an action for injunctive relief under subsection (C) shall not relieve any party to such proceeding from any further civil or criminal penalty prescribed for violations of this Code.

(D) *Criminal penalties.* Any person who knowingly or willfully violates any provision of this chapter, rule, regulation, order duly adopted or issued pursuant to this chapter shall be guilty of a misdemeanor, punishable by a fine not to exceed \$500 or imprisonment for not longer than 30 days. Each violation shall be a separate offense.
(Ord. No. 04-112, passed 9-9-2004)

SEC. 9-9-18 VARIANCES.

The Board of Adjustment as established by the city shall hear and decide requests for variances from the requirements of this chapter. When practical difficulties or unnecessary hardships would result from carrying out the strict letter of this chapter, the Board of Adjustment may vary or modify any provision of this chapter so that the spirit of the chapter shall be observed, public safety and welfare secured, and substantial justice done.
(Ord. No. 04-112, passed 9-9-2004)