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## APPENDIX B – FLOOD DAMAGE PREVENTION AND STORMWATER MANAGEMENT

### 1.1. FLOOD DAMAGE PREVENTION OVERLAY

#### 1.1.1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

A. **Statutory Authorization.** The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Article 8 of Chapter 160A; and Article 7, 9, and 11 of N.C. Gen. Stat. § 160D (Effective July 1, 2021) of the North Carolina General Statutes, delegated to local governmental units the authority to adopt regulations designed to promote the public health, safety, and general welfare. Therefore, the Board of Commissioners of the Town of Rolesville, North Carolina, does ordain as follows in this section.

B. **Findings of Fact.**

1. The flood prone areas within the jurisdiction of the Town of Rolesville are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
2. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.

C. **Statement of Purpose.** It is the purpose of this section to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

1. Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
2. Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;

3. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;
4. Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
5. Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.

D. **Objectives.** The objectives of this section are to:

1. Protect human life, safety, and health;
2. Minimize expenditure of public money for costly flood control projects;
3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. Minimize prolonged business losses and interruptions;
5. Minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
6. Minimize damage to private and public property due to flooding;
7. Make flood insurance available to the community through the National Flood Insurance Program;
8. Maintain the natural and beneficial functions of floodplains;
9. Help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
10. Ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

#### 1.1.2. DEFINITIONS

- A. Unless specifically defined below, words or phrases used in this section shall be interpreted so as to give them the meaning they have in common usage and to give this section it's most reasonable application. Due to the unique nature of flood damage

prevention standards, the interpretation of the words or phrases in this section are applicable only within the standards of this section and do not apply throughout the entire LDO. Definitions applicable to this section include below:

1. “Accessory Structure (Appurtenant Structure)” means a structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports, and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms and may or may not be located on the same parcel as the farm dwelling or shop building.
2. “Addition (to an existing building)” means an extension or increase in the floor area or height of a building or structure.
3. “Alteration of a watercourse” means a dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.
4. “Appeal” means a request for a review of the Land Development Administrator’s interpretation of any provision of this section.
5. “Area of Shallow Flooding” means a designated Zone AO or AH on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.
6. “Area of Special Flood Hazard” see “Special Flood Hazard Area (SFHA)”.
7. “Area of Future-Conditions Flood Hazard” means the land area that would be inundated by the 1-percent-annual-chance (100- year) flood based on future-conditions hydrology.
8. “Base Flood” means the flood having a one (1) percent chance of being equaled or exceeded in any given year based on current conditions hydrology.
9. “Base Flood Elevation (BFE)” means a determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a “Special Flood Hazard Area”, it may be obtained from engineering studies available from a Federal, State, or other source using

- FEMA approved engineering methodologies. This elevation, when combined with the “Freeboard”, establishes the “Regulatory Flood Protection Elevation”.
10. “Basement” means any area of the building having its floor subgrade (below ground level) on all sides.
  11. “Building” see “Structure”.
  12. “Chemical Storage Facility” means a building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.
  13. “Current Conditions Hydrology” means the flood discharges associated with the land-use conditions existing within the drainage area of a watercourse at the time a flood study of the watercourse was conducted. Current conditions flood discharges and historical flood study information are published in the Flood Insurance Study.
  14. “Design Flood”: See “Regulatory Flood Protection Elevation.”
  15. “Development” means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
  16. “Development Activity” means any activity defined as Development which will necessitate a Floodplain Development Permit. This includes buildings, structures, and non-structural items, including (but not limited to) fill, bulkheads, piers, pools, docks, landings, ramps, and erosion control/stabilization measures.
  17. “Digital Flood Insurance Rate Map (DFIRM)” means the digital official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.
  18. “Disposal” means, as defined in NCGS 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

19. “Elevated Building” means a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.
20. “Encroachment” means the advance or infringement of uses, fill, excavation, buildings, structures, or development into a special flood hazard area, which may impede or alter the flow capacity of a floodplain.
21. “Existing building and existing structure” means any building and/or structure for which the “start of construction” commenced before the effective date of the floodplain management regulations of this section.
22. “Existing Manufactured Home Park or Manufactured Home Subdivision” means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of this section.
23. “Flood” or “Flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from:
  - a. The overflow of inland or tidal waters; and/or
  - b. The unusual and rapid accumulation or runoff of surface waters from any source.
24. “Flood Boundary and Floodway Map (FBFM)” means an official map of a community, issued by the FEMA, on which the Special Flood Hazard Areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).
25. “Flood Hazard Boundary Map (FHBM)” means an official map of a community, issued by the FEMA, where the boundaries of the Special Flood Hazard Areas have been defined as Zone A.
26. “Flood Insurance” means the insurance coverage provided under the National Flood Insurance Program.
27. “Flood Insurance Rate Map (FIRM)” means an official map of a community, issued by FEMA, on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated. (see also DFIRM)

28. “Flood Insurance Study (FIS)” means an examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued by the FEMA. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.
29. “Flood Prone Area” see “Floodplain”.
30. “Flood Zone” means a geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.
31. “Floodplain” means any land area susceptible to being inundated by water from any source.
32. “Floodplain Administrator” is the individual appointed to administer and enforce the floodplain management regulations. The floodplain administrator shall be the land development administrator of this LDO.
33. “Floodplain Development Permit” means any type of permit that is required in conformance with the provisions of this section, prior to the commencement of any development activity.
34. “Floodplain Management” means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.
35. “Floodplain Management Regulations” means this section and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power. This term describes federal, state, or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.
36. “Floodproofing” means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.

37. “Flood-resistant material” means any building product [material, component, or system] capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.
38. “Floodway” means the channel of a river or other watercourse, including the area above a bridge or culvert when applicable, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.
39. “Floodway encroachment analysis” means an engineering analysis of the impact that a proposed encroachment into a floodway or non-encroachment area is expected to have on the floodway boundaries and flood levels during the occurrence of the base flood discharge. The evaluation shall be prepared by a qualified North Carolina licensed engineer using standard engineering methods and hydraulic models meeting the minimum requirements of the National Flood Insurance Program.
40. “Freeboard” means the height added to the BFE to account for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge or culvert openings, precipitation exceeding the base flood, and the hydrological effect of urbanization of the watershed. The BFE plus the freeboard establishes the “Regulatory Flood Protection Elevation”.
41. “Functionally Dependent Facility” means a facility which cannot be used for its intended purpose unless it is located in close proximity to water, limited to a docking or port facility necessary for the loading and unloading of cargo or



passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

42. “Hazardous Waste Management Facility” means, as defined in NCGS 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.
43. “Highest Adjacent Grade (HAG)” means the highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.
44. “Historic Structure” means any structure that is:
  - a. Listed individually in the National Register of Historic Places (a listing maintained by the US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
  - b. Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
  - c. Individually listed on a local inventory of historic landmarks in communities with a “Certified Local Government (CLG) Program”; or
  - d. Certified as contributing to the historical significance of a historic district designated by a community with a “Certified Local Government (CLG) Program.”

Note: Certified Local Government (CLG) Programs are approved by the US Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

45. “Letter of Map Change (LOMC)” means an official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:
  - a. Letter of Map Amendment (LOMA): An official amendment, by letter, to an effective National Flood Insurance Program map. A LOMA is based on technical data showing that a property had been inadvertently mapped

- as being in the floodplain but is actually on natural high ground above the base flood elevation. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.
- b. Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.
  - c. Letter of Map Revision Based on Fill (LOMR-F): A determination that a structure or parcel of land has been elevated by fill above the BFE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the Town’s floodplain management regulations.
  - d. Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.
46. “Light Duty Truck” means any motor vehicle rated at 8,500 pounds Gross Vehicular Weight Rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:
- a. Designed primarily for purposes of transportation of property or is a derivation of such a vehicle;
  - b. Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
  - c. Available with special features enabling off-street or off-highway operation and use.

47. “Lowest Adjacent Grade (LAG)” means the elevation of the ground, sidewalk, or patio slab immediately next to the building, or deck support, after completion of the building.
48. “Lowest Floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this section.
49. “Manufactured Home” means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term “manufactured home” does not include a “recreational vehicle”.
50. “Manufactured Home Park or Subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
51. “Map Repository” means the location of the official flood hazard data to be applied for floodplain management. It is a central location in which flood data is stored and managed; in North Carolina, FEMA has recognized that the application of digital flood hazard data products carry the same authority as hard copy products. Therefore, the NCEM’s Floodplain Mapping Program websites house current and historical flood hazard data. For effective flood hazard data the NC FRIS website (<http://FRIS.NC.GOV/FRIS>) is the map repository, and for historical flood hazard data the FloodNC website (<http://FLOOD.NC.GOV/NCFLOOD/>) is the map repository.
52. “Market Value” means the building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (Actual Cash Value); or adjusted tax assessed values.
53. “New Construction” means structures for which the “start of construction” commenced on or after the effective date of the initial floodplain management regulations and includes any subsequent improvements to such structures.

54. “Non-Conversion Agreement” means a document stating that the owner will not convert or alter what has been constructed and approved. Violation of the agreement is considered a violation of the section and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk’s or recorder’s stamps and/or notations that the filing has been completed.
55. “Non-Encroachment Area (NEA)” means the channel of a river or other watercourse, including the area above a bridge or culvert when applicable, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.
56. “Post-FIRM” means construction or other development for which the “start of construction” occurred on or after the effective date of the initial Flood Insurance Rate Map for the area.
57. “Pre-FIRM” means construction or other development for which the “start of construction” occurred before the effective date of the initial Flood Insurance Rate Map for the area.
58. “Principally Above Ground” means that at least 51% of the actual cash value of the structure is above ground.
59. “Public Safety” and/or “Nuisance” means anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.
60. “Recreational Vehicle (RV)” means a vehicle, which is:
- a. Built on a single chassis;
  - b. 400 square feet or less when measured at the largest horizontal projection;
  - c. Designed to be self-propelled or permanently towable by a light duty truck;
  - d. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use, and
  - e. Is fully licensed and ready for highway use.

61. “Reference Level” is the bottom of the lowest horizontal structural member of the lowest floor for structures within all Special Flood Hazard Areas .
62. “Regulatory Flood Protection Elevation” means the “Base Flood Elevation” plus the “Freeboard”.
  - a. In “Special Flood Hazard Areas” where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus 2 feet freeboard.
  - b. In “Special Flood Hazard Areas” where no BFE has been established, this elevation shall be at least 2 feet above the highest adjacent grade.
  - c. In Future Conditions Flood Hazard Areas this elevation shall be the Future Conditions Flood Elevation plus 2 feet of freeboard.
63. “Remedy a Violation” means to bring the structure or other development into compliance with state and Town floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the section, or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.
64. “Riverine” means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.
65. “Salvage Yard” means any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances, and related machinery.
66. “Solid Waste Disposal Facility” means any facility involved in the disposal of solid waste, as defined in NCGS 130A-290(a)(35).
67. “Solid Waste Disposal Site” means, as defined in NCGS 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.
68. “Special Flood Hazard Area (SFHA)” means the land in the floodplain subject to a one percent (1%) or greater chance of being flooded in any given year, as determined in 1.1.3.B of this section.
69. “Start of Construction” includes substantial improvement and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was

within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

70. “Structure” means a walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.
71. “Substantial Damage” means damage of any origin sustained by a structure during any one-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. See definition of “substantial improvement”. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.
72. “Substantial Improvement” means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

- (a) Any correction of existing violations of state or community health, sanitary, or safety code specifications which have been identified by the Town’s code enforcement official and which are the minimum necessary to assure safe living conditions; or
  - (b) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure and the alteration is approved by variance issued pursuant to 1.1.4.E of this section.
73. “Technical Bulletin and Technical Fact Sheet” means a FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at Section 60.3. The bulletins and fact sheets are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.
- Note: It should be noted that Technical Bulletins and Technical Fact Sheets provide guidance on the minimum requirements of the NFIP regulations. State or Town requirements that exceed those of the NFIP take precedence. Design professionals should contact the Town officials to determine whether more restrictive State or local regulations apply to the building or site in question. All applicable standards of the State or local building code must also be met for any building in a flood hazard area.
74. “Temperature Controlled” means having the temperature regulated by a heating and/or cooling system, built-in or appliance.
75. “Variance” is a grant of relief from the requirements of this section.
76. “Violation” means the failure of a structure or other development to be fully compliant with the Town's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 1.1.4 and 1.1.5 is presumed to be in violation until such time as that documentation is provided.

77. “Water Surface Elevation (WSE)” means the height, in relation to NAVD 1988 (or currently accepted standard), of floods of various magnitudes and frequencies in the floodplains of riverine areas.

78. “Watercourse” means a lake, river, creek, stream, wash, channel, or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

### 1.1.3. GENERAL PROVISIONS

- A. **Lands to Which This Section Applies.** This section shall apply to all Special Flood Hazard Areas within the jurisdiction, including Extraterritorial Jurisdiction (ETJ), as allowed by law, of the Town of Rolesville.
- B. **Basis for Establishing The Special Flood Areas.** The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its FIS dated May 2, 2006 for Wake County and associated DFIRM panels, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this section, and all revisions thereto after January 1, 2021. Future revisions to the FIS and DFIRM panels that do not change flood hazard data within the jurisdictional authority of the Town of Rolesville are also adopted by reference and declared a part of this section. Subsequent Letter of Map Revisions (LOMRs) and/or Physical Map Revisions (PMRs) shall be adopted within 3 months.
- C. **Establishment of Floodplain Development Permit.** A Floodplain Development Permit shall be required in conformance with the provisions of this section prior to the commencement of any development activities within Special Flood Hazard Areas determined in accordance with the provisions of 1.1.3.B of this section.
- D. **Compliance.** No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this section and other applicable regulations.
- E. **Abrogation and Greater Restrictions.** This section is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this section and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.



F. **Interpretation.** In the interpretation and application of this section, all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the governing body; and
3. Deemed neither to limit nor repeal any other powers granted under State statutes.

G. **Warning and Disclaimer of Liability.** The degree of flood protection required by this section is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This section does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of the Town of Rolesville or by any officer, employee, or administrative decision for any flood damages that result from reliance on this section.

H. **Penalties for Violation.** Violation of the provisions of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$50.00 or imprisoned for not more than 30 days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Rolesville from taking such other lawful action as is necessary to prevent or remedy any violation.

#### 1.1.4. ADMINISTRATION

A. **Designation of Floodplain Administrator (Land Development Administrator).** The Land Development Administrator (LDA) of this LDO, or their designee, is hereby appointed to administer and implement the provisions of this section.

#### B. Floodplain Development Application, Permit and Certification

1. Application Requirements. Application for a Floodplain Development Permit shall be made to the LDA prior to any development activities located within

Special Flood Hazard Areas. The following items shall be presented to the LDA to apply for a floodplain development permit:

- a. A site plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:
  - i. The nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;
  - ii. The boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in 1.1.3.B, or a statement that the entire lot is within the Special Flood Hazard Area;
  - iii. Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in 1.1.3.B;
  - iv. The boundary of the floodway(s) or non-encroachment area(s) as determined in 1.1.3.B;
  - v. The Base Flood Elevation (BFE) where provided as set forth in 1.1.3.B; 1.1.4.C; or 1.1.5.D;
  - vi. The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and
  - vii. The certification of the plot plan by a registered land surveyor or professional engineer.
- b. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:
  - i. Elevation in relation to NAVD 1988 (or currently accepted standard) of the proposed reference level (including basement) of all structures;

- ii. Elevation in relation to NAVD 1988 (or currently accepted standard) to which any non-residential structure in Zones A, AE, AH, AO, A99 will be floodproofed; and
  - iii. Elevation in relation to NAVD 1988 (or currently accepted standard) to which any proposed utility systems will be elevated or floodproofed.
- c. If floodproofing, a Floodproofing Certificate (FEMA Form 086-0-34) with supporting data, an operational plan, and an inspection and maintenance plan that include, but are not limited to, installation, exercise, and maintenance of floodproofing measures.
- d. A Foundation Plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this section are met. These details include but are not limited to:
  - i. The proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls); and
  - ii. Openings to facilitate automatic equalization of hydrostatic flood forces on walls in accordance with 1.1.5.B(4)(d) when solid foundation perimeter walls are used in Zones A, AE, AH, AO, A99.
- e. Usage details of any enclosed areas below the lowest floor.
- f. Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage.
- g. Certification that all other Local, State and Federal permits required prior to floodplain development permit issuance have been received.
- h. Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure that the provisions of 1.1.5.B, subsections (6) and (7) of this section are met.

- i. A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.
2. Permit Requirements. The Floodplain Development Permit shall include, but not be limited to:
  - a. A complete description of all the development to be permitted under the floodplain development permit (e.g. house, garage, pool, septic, bulkhead, cabana, pier, bridge, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, etc.).
  - b. The Special Flood Hazard Area determination for the proposed development in accordance with available data specified in 1.1.3.B.
  - c. The Regulatory Flood Protection Elevation required for the reference level and all attendant utilities.
  - d. The Regulatory Flood Protection Elevation required for the protection of all public utilities.
  - e. All certification submittal requirements with timelines.
  - f. A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse unless the requirements of 1.1.5.F have been met.
  - g. The flood openings requirements.
  - h. Limitations of below BFE enclosure uses (if applicable). (i.e., parking, building access and limited storage only).
  - i. A statement, that all materials below BFE/RFPE must be flood resistant materials.

### 3. Certification Requirements.

a. Elevation Certificates

- i. An Elevation Certificate (FEMA Form 086-0-33) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the LDA a certification of the elevation of the reference level, in relation to NAVD 1988 (or currently accepted standard). The LDA shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.
- ii. An Elevation Certificate (FEMA Form 086-0-33) is required after the reference level is established. Within seven (7) calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the LDA a certification of the elevation of the reference level, in relation to NAVD 1988 (or currently accepted standard). Any work done within the seven (7) day calendar period and prior to submission of the certification shall be at the permit holder's risk. The LDA shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.
- iii. A final Finished Construction Elevation Certificate (FEMA Form 086-0-33) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the LDA a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The LDA shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to

Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy. The Finished Construction Elevation Certificate certifier shall provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3" × 3". Digital photographs are acceptable.

b. Floodproofing Certificate

- i. If non-residential floodproofing is used to meet the Regulatory Flood Protection Elevation requirements, a Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the LDA a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988 (or currently accepted standard). Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The LDA shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure

to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

- ii. A final Finished Construction Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the issuance of a Certificate of Compliance/Occupancy. It shall be the duty of the permit holder to submit to the LDA a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988 (or currently accepted standard). Floodproofing certificate shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The LDA shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to Certificate of Occupancy. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to deny a Certificate of Compliance/Occupancy.
- c. If a manufactured home is placed within Zones A, AE, AH, AO, A99 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required in accordance with the provisions of 1.1.5.B(3)(b).
- d. If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by

the permit applicant prior to issuance of a floodplain development permit.

- e. Certification Exemptions. The following structures, if located within Zones A, AE, AH, AO, A99, are exempt from the elevation/floodproofing certification requirements specified in items 1.1.4.3(a) and (b) of this subsection:
    - i. Recreational Vehicles meeting requirements of 1.1.5.B(6)(a);
    - ii. Temporary Structures meeting requirements of 1.1.5.B(7); and
    - iii. Accessory Structures less than 150 square feet meeting requirements of 1.1.5.B(6)
4. Determinations for existing buildings and structures. For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the LDA (or designee) shall:
- a. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
  - b. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
  - c. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
  - d. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that



compliance with the flood resistant construction requirements of the NC Building Code and this section is required.

**C. Duties and Responsibilities of the Floodplain Administrator.** The Floodplain Administrator (the Land Development Administrator of this LDO) shall perform, but not be limited to, the following duties:

1. Review all floodplain development applications and issue permits for all proposed development within Special Flood Hazard Areas to assure that the requirements of this section have been satisfied.
2. Review all proposed development within Special Flood Hazard Areas to assure that all necessary local, state, and federal permits have been received.
3. Notify adjacent communities and the North Carolina Department of Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).
4. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.
5. Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of 1.1.5.F are met.
6. Obtain actual elevation (in relation to NAVD 1988 or currently accepted standard)) of the reference level (including basement) and all attendant utilities of all new and substantially improved structures, in accordance with the provisions of 1.1.4.B(3).
7. Obtain actual elevation (in relation to NAVD 1988 or currently accepted standard) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with the provisions of 1.1.4.B(3).
8. Obtain actual elevation (in relation to NAVD 1988 or currently accepted standard) of all public utilities in accordance with the provisions of 1.1.4.B(3).

9. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with the provisions of 1.1.4.B(3) and 1.1.5.B(2).
10. Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas, floodways, or non-encroachment areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this section.
11. When BFE data has not been provided in accordance with the provisions of 1.1.3.B, obtain, review, and reasonably utilize any BFE data, along with floodway data or non-encroachment area data available 1.1.5.D(2)(c), in order to administer the provisions of this section.
12. When BFE data is provided but no floodway or non-encroachment area data has been provided in accordance with the provisions of 1.1.3.B, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a federal, state, or other source in order to administer the provisions of this section.
13. When the lowest floor and the lowest adjacent grade of a structure or the lowest ground elevation of a parcel in a Special Flood Hazard Area is above the BFE, advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from FEMA. Maintain a copy of the LOMA issued by FEMA in the floodplain development permit file.
14. Permanently maintain all records that pertain to the administration of this section and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.
15. Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the LDA shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local section and the terms of the permit. In exercising this power, the LDA has a right, upon presentation of

proper credentials, to enter on any premises within the jurisdiction of the Town at any reasonable hour for the purposes of inspection or other enforcement action.

16. Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this section, the LDA may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing or in charge of the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.
17. Revoke floodplain development permits as required. The LDA may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, and specifications; for refusal or failure to comply with the requirements of State or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable State or local law may also be revoked.
18. Make periodic inspections throughout the Special Flood Hazard Areas within the jurisdiction of the Town. The LDA and each member of his or her department staff shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.
19. Follow through with corrective procedures of 1.1.4.D.
20. Review, provide input, and make recommendations for variance requests.
21. Maintain a current map repository to include, but not limited to, historical and effective FIS Report, historical and effective FIRM and other official flood maps and studies adopted in accordance with the provisions of 1.1.3.B of this section, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.

22. Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-Fs) and Letters of Map Revision (LOMRs).

**D. Corrective Procedures.**

1. Violations to be corrected: When the LDA finds violations of applicable state and local laws; it shall be his or her duty to notify the owner of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.
2. Actions in Event of Failure to Take Corrective Action: If the owner of a building or property shall fail to take prompt corrective action, the LDA shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:
  - a. That the building or property is in violation of the floodplain management regulations;
  - b. That a hearing will be held before the LDA at a designated place and time, not later than ten (10) days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and
  - c. That following the hearing, the LDA may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.
3. Order to Take Corrective Action: If, upon a hearing held pursuant to the notice prescribed above, the LDA shall find that the building or development is in violation of the this section, they shall issue an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than sixty (60) calendar days, nor more than ninety (90) calendar days. Where the LDA finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.
4. Appeal: Any owner who has received an order to take corrective action may appeal the order to the Board of Adjustment by giving notice of appeal in writing to the LDA and the clerk within ten (10) days following issuance of the final

order. In the absence of an appeal, the order of the LDA shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify, and affirm, or revoke the order.

5. Failure to Comply with Order: If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the governing body following an appeal, the owner shall be guilty of a Class 1 misdemeanor pursuant to NC G.S. § 143-215.58 and shall be punished at the discretion of the court.

#### **E. Variance Procedures.**

1. The BOA, shall hear and decide requests for variances from the requirements of this section.
2. Any person aggrieved by the decision of the BOA may appeal such decision to the applicable Court, as provided in Chapter 7A of the North Carolina General Statutes.
3. Variances may be issued for:
  - a. The repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and that the variance is the minimum necessary to preserve the historic character and design of the structure;
  - b. Functionally dependent facilities if determined to meet the definition as stated in 1.1.2 of this section, provided provisions of 1.1.4.E(9)(b), (c), and (e) have been satisfied, and such facilities are protected by methods that minimize flood damages during the base flood and create no additional threats to public safety; or
  - c. Any other type of development provided it meets the requirements of this section.
4. In passing upon variances, the BOA shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this section, and:

- a. The danger that materials may be swept onto other lands to the injury of others;
- b. The danger to life and property due to flooding or erosion damage;
- c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- d. The importance of the services provided by the proposed facility to the community;
- e. The necessity to the facility of a waterfront location as defined under 1.1.2 of this section as a functionally dependent facility, where applicable;
- f. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- g. The compatibility of the proposed use with existing and anticipated development;
- h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
- k. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- l. The extent that the development limit will deprive the land owner of reasonable use of their property.

5. A written report addressing each of the above factors shall be submitted with the application for a variance.
6. Upon consideration of the factors listed above and the purposes of this section, the BOA may attach such conditions to the granting of variances as it deems necessary to further the purposes and objectives of this section.
7. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the BFE and the elevation to which the structure is to be built and that such construction below the BFE increases risks to life and property, and that the issuance of a variance to construct a structure below the BFE may result in increased premium rates for flood insurance up to \$25 per \$100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.
8. The LDA shall maintain the records of all appeal actions and report any variances to the FEMA and the State of North Carolina upon request.
9. Conditions for Variances:
  - a. Variances shall not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or sections.
  - b. Variances shall not be issued within any designated floodway or non-encroachment area if the variance would result in any increase in flood levels during the base flood discharge.
  - c. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  - d. Variances shall only be issued prior to development permit approval.
  - e. Variances shall only be issued upon:
    - i. A showing of good and sufficient cause;
    - ii. A determination that failure to grant the variance would result in exceptional hardship; and

- iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or sections.
10. A variance may be issued for solid waste disposal facilities or sites, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of the following conditions are met.
- a. The use serves a critical need in the community.
  - b. No feasible location exists for the use outside the Special Flood Hazard Area.
  - c. The reference level of any structure is elevated or floodproofed to at least the Regulatory Flood Protection Elevation.
  - d. The use complies with all other applicable federal, state, and local laws.
  - e. The Town of Rolesville has notified the Secretary of the North Carolina Department of Public Safety of its intention to grant a variance at least thirty (30) calendar days prior to granting the variance.

#### 1.1.5. PROVISIONS FOR FLOOD HAZARD REDUCTION.

A. **General Standards.** In all Special Flood Hazard Areas the following provisions are required:

1. All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.
2. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage in accordance with the FEMA Technical Bulletin 2, Flood Damage-Resistant Materials Requirements.
3. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.



4. All new electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall be located at or above the RFPE or designed and installed to prevent water from entering or accumulating within the components during the occurrence of the base flood. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.
  - a. Replacements part of a substantial improvement, electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.
  - b. Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.
5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters.
7. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
8. Nothing in this section shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this section and located totally or partially within the floodway, non-encroachment area, or stream setback, provided there is no additional encroachment below the Regulatory Flood Protection Elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this section.

9. New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted, except by variance as specified in 1.1.4.E(10). A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the Regulatory Flood Protection Elevation and certified in accordance with the provisions of 1.1.4.B(3).
10. All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.
11. All subdivision proposals and other development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
12. All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
13. All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
14. When a structure is partially located in a Special Flood Hazard Area, the entire structure shall meet the requirements for new construction and substantial improvements.
15. When a structure is located in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest BFE shall apply.
16. Buildings and structures that are located in more than one flood hazard area shall comply with the provisions associated with the most restrictive flood hazard area.

17. Fill is prohibited in the SFHA, including construction of buildings on fill. This includes not approving Conditional Letters or Letters of Map Revision - Based on Fill (CLOMR-F or LOMR-F).

B. **Specific Standards.** In all Special Flood Hazard Areas where BFE data has been provided, as set forth in 1.1.3.B, or 1.1.5.D, the following provisions, in addition to the provisions of 1.1.5.A, are required:

1. **Residential Construction.** New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the Regulatory Flood Protection Elevation, as defined in 1.1.2 of this section.
2. **Non-Residential Construction.** New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the Regulatory Flood Protection Elevation, as defined in 1.1.2 of this section. Structures located in Zones A, AE, AH, AO, A99 may be floodproofed to the Regulatory Flood Protection Elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the Regulatory Flood Protection Elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with 1.1.5.G(2). A registered professional engineer or architect shall certify that the floodproofing standards of this subsection are satisfied. Such certification shall be provided to the LDA as set forth in 1.1.4.B(3), along with the operational plan and the inspection and maintenance plan.
3. **Manufactured Homes.**
  - a. New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the Regulatory Flood Protection Elevation, as defined in 1.1.2 of this section.
  - b. Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement,

either by certified engineered foundation system, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to NCGS 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.

- c. All enclosures or skirting below the lowest floor shall meet the requirements of 1.1.5.B(4).
  - d. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the LDA and the local Emergency Management Coordinator.
4. Elevated Buildings. Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:
- a. Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;
  - b. Shall not be temperature-controlled or conditioned;
  - c. Shall be constructed entirely of flood resistant materials at least to the Regulatory Flood Protection Elevation; and
  - d. Shall include flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet

this requirement, the openings must either be certified by a professional engineer or architect or meet or exceed the following minimum design criteria:

- (i) A minimum of two flood openings on different sides of each enclosed area subject to flooding;
  - (ii) The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding;
  - (iii) If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;
  - (iv) The bottom of all required flood openings shall be no higher than one (1) foot above the higher of the interior or exterior adjacent grade;
  - (v) Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and
  - (vi) Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.
- e. Fill/Grading
- i. Fill is prohibited in the SFHA
- f. Property owners shall be required to execute and record a non-conversion agreement prior to issuance of a building permit declaring that the area below the lowest floor shall not be improved, finished or otherwise converted to habitable space (30 CRS points); the Town of Rolesville will have the right to inspect the enclosed area (30 CRS points); the Town of Rolesville will conduct annual inspections (30 CRS points).

This agreement shall be recorded with the Town of Rolesville County Register of Deeds and shall transfer with the property in perpetuity.

- g. Release of restrictive covenant. If a property which is bound by a non-conversion agreement is modified to remove enclosed areas below BFE, then the owner may request release of restrictive covenant after staff inspection and submittal of confirming documentation.

5. Additions/Improvements.

- a. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
  - i. Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.
  - ii. A substantial improvement, with modifications/rehabilitations/improvements to the existing structure or the common wall is structurally modified more than installing a doorway, both the existing structure and the addition must comply with the standards for new construction.
- b. Additions to pre-FIRM or post-FIRM structures that are a substantial improvement with no modifications/rehabilitations/improvements to the existing structure other than a standard door in the common wall, shall require only the addition to comply with the standards for new construction.
- c. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
  - i. Not a substantial improvement, the addition and/or improvements only must comply with the standards for new

construction consistent with the code and requirements for the original structure.

- ii. A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
- d. Any combination of repair, reconstruction, rehabilitation, addition or improvement of a building or structure taking place during a 1 year period, the cumulative cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started must comply with the standards for new construction. For each building or structure, the 1 year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of this section. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The requirement does not, however, include either:
- i. Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assume safe living conditions.
  - ii. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

6. Recreational Vehicles. Recreational vehicles shall either:

a. Temporary Placement

- i. Be on site for fewer than 180 consecutive days; or

- ii. Be fully licensed and ready for highway use. (A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and has no permanently attached additions.)
  - b. Permanent Placement. Recreational vehicles that do not meet the limitations of Temporary Placement shall meet all the requirements for new construction.
- 7. Temporary Non-Residential Structures. Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the LDA a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the LDA for review and written approval:
  - a. A specified time period for which the temporary use will be permitted. Time specified may not exceed three (3) months, renewable up to one (1) year;
  - b. The name, address, and phone number of the individual responsible for the removal of the temporary structure;
  - c. The time frame prior to the event at which a structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);
  - d. A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and
  - e. Designation, accompanied by documentation, of a location outside the Special Flood Hazard Area, to which the temporary structure will be moved.
- 8. Accessory Structures. When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Area, the following criteria shall be met:
  - a. Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);



- b. Accessory structures shall not be temperature-controlled;
  - c. Accessory structures shall be designed to have low flood damage potential;
  - d. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
  - e. Accessory structures shall be firmly anchored in accordance with the provisions of 1.1.5.A(1);
  - f. All service facilities such as electrical shall be installed in accordance with the provisions of 1.1.5.A(4); and
  - g. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below Regulatory Flood Protection Elevation in conformance with the provisions of 1.1.5.B(4)(d).
  - h. An accessory structure with a footprint less than 150 square feet or that is a minimal investment of \$3,000 or less and satisfies the criteria outlined above is not required to meet the elevation or floodproofing standards of 1.1.5.B(2). Elevation or floodproofing certifications are required for all other accessory structures in accordance with 1.1.4.B(3).
9. Tanks. When gas and liquid storage tanks are to be placed within a Special Flood Hazard Area, the following criteria shall be met:
- a. Underground tanks. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;
  - b. Above-ground tanks, elevated. Above-ground tanks in flood hazard areas shall be elevated to or above the Regulatory Flood Protection Elevation on a supporting structure that is designed to prevent flotation, collapse, or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area;

- c. Above-ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of Section B (2) of this section shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the design flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed, installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions.
- d. Tank inlets and vents. Tank inlets, fill openings, outlets and vents shall be:
  - i. At or above the Regulatory Flood Protection Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and
  - ii. Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.

#### 10. Other Development.

- a. Fences in regulated floodways and NEAs (Non-Encroachment Areas) that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of 1.1.5.F of this section.
- b. Retaining walls, sidewalks and driveways in regulated floodways and NEAs. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of 1.1.5.F of this section.
- c. Roads and watercourse crossings in regulated floodways and NEAs. Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel

from one side of a watercourse to the other side, that encroach into regulated floodways shall meet the limitations of 1.1.5.F of this section.

- d. Commercial storage facilities are not considered “limited storage” as noted in this section and shall be protected to the Regulatory Flood Protection Elevation as required for commercial structures.

**C. Reserved.**

**D. Standards for Floodplains Without Established Base Flood Elevations.** Within the Special Flood Hazard Areas designated as Approximate Zone A and established in 1.1.3.B, where no BFE data has been provided by FEMA, the following provisions, in addition to the provisions of 1.1.5.A, shall apply:

1. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of twenty (20) feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
2. The BFE used in determining the Regulatory Flood Protection Elevation shall be determined based on the following criteria:
  - a. When BFE data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this section and shall be elevated or floodproofed in accordance with standards in 1.1.5.A and B.
  - b. When floodway or non-encroachment data is available from a Federal, State, or other source, all new construction and substantial improvements within floodway and non-encroachment areas shall also comply with the requirements of 1.1.5B and F.
  - c. All subdivision, manufactured home park and other development proposals shall provide BFE data if development is greater than five (5) acres or has more than fifty (50) lots/manufactured home sites. Such BFE

data shall be adopted by reference in accordance with 1.1.3.B and utilized in implementing this section.

- d. When BFE data is not available from a Federal, State, or other source as outlined above, the reference level shall be elevated or floodproofed (nonresidential) to or above the Regulatory Flood Protection Elevation, as defined in 1.1.2. All other applicable provisions of 1.1.5.B shall also apply.

**E. Standards for Riverine Floodplains With Base Flood Elevations But Without Established Floodways or Non-Encroachment Areas (NEAs).** Along rivers and streams where BFE data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

1. Standards of 1.1.5.A and B; and
2. Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point.

**F. Floodways And Non-Encroachment Areas.** Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in 1.1.3.B. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to standards outlined in 1.1.5.A and B, shall apply to all development within such areas:

1. No encroachments, including fill, new construction, substantial improvements, and other developments shall be permitted unless:
  - a. It is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood

discharge, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the LDA prior to issuance of floodplain development permit; or

- b. A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained within six months of completion of the proposed encroachment.
2. If 1.1.5.F(1) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this section.
  3. Manufactured homes may be permitted provided the following provisions are met:
    - a. The anchoring and the elevation standards of 1.1.5.B(3); and
    - b. The encroachment standards of 1.1.5.F(1).

**G. Standards For Areas of Shallow Flooding (ZONE AO).** Located within the Special Flood Hazard Areas established in 1.1.3.B, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to 1.1.5.A and B, all new construction and substantial improvements shall meet the following requirements:

1. The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of 2 feet, above the highest adjacent grade; or at least 2 feet above the highest adjacent grade if no depth number is specified.
2. Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in 1.1.5.I(1) so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required in accordance with 1.1.4.B(3) and 1.1.5.B(2).

3. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

H. **Standards For Areas of Shallow Flooding (ZONE AH).** Located within the Special Flood Hazard Areas established in 1.1.3.B, are areas designated as shallow flooding areas. These areas are subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are one (1) to three (3) feet. Base Flood Elevations are derived from detailed hydraulic analyses are shown in this zone. In addition to 1.1.5. A and B, all new construction and substantial improvements shall meet the following requirements:

1. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

#### 1.1.6. LEGAL STATUS PROVISIONS.

- A. **Effect On Rights and Liabilities Under The Existing Flood Damage Section.** This section in part comes forward by re-enactment of some of the provisions of the Flood Damage Prevention Section enacted Dec 19<sup>th</sup>, 2000, as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this section shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Section of the Town of Rolesville enacted on Dec 19<sup>th</sup>, 2000, as amended, which are not reenacted herein are repealed.
- B. **Effect Upon Outstanding Floodplain Development Permits.** Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a floodplain development permit has been granted by the LDA or authorized agents before the time of passage of this section; provided, however, that when construction is not begun under such outstanding permit within a period of six (6) months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this section.
- C. **Severability.** If any section, clause, sentence, or phrase of the section is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this section.

## 1.2. STORMWATER MANAGEMENT

### 1.2.1. GENERAL PROVISIONS

- A. **Title.** This section shall be officially known as "The Post-Construction Stormwater Ordinance." It is referred to within this section herein as "this ordinance."
- B. **Authority.** The Town Board is authorized to adopt this ordinance pursuant to North Carolina law, including but not limited to Article 14, Section 5 of the Constitution of North Carolina; the Charter of the Town of Rolesville; North Carolina General Statutes 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2004-163; Chapter 160A, §§ 174, and 185.
- C. **Findings.** It is hereby determined that Development and Redevelopment alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge. These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from Development sites. Further, the Federal Water Pollution Control Act of 1972 ("Clean Water Act") and federal Phase II Stormwater Rules promulgated under it compel the Town to adopt minimum stormwater controls such as those included in this ordinance. Therefore, the Town establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge.
- D. **Purpose.**
1. General. The purpose of this ordinance is to protect, maintain and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-Development stormwater runoff and nonpoint and point source pollution associated with new Development and Redevelopment as well as illicit discharges into municipal stormwater systems.
  2. Specific. This ordinance seeks to meet its general purpose through the following specific objectives and means:

- a. Requiring that new Development and Redevelopment maintain the pre-Development hydrologic response in their post-Development state as nearly as practicable for the applicable design storm to reduce flooding, streambank erosion, nonpoint and point source pollution;
- b. Establishing minimum post-Development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
- c. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers, and other conservation areas to the maximum extent practicable;
- d. Establishing provisions for the long-term responsibility for and maintenance of Structural and nonstructural Stormwater Best Management Practices (BMPs) to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;
- e. Establishing administrative procedures for the submission, review, approval, and disapproval of stormwater management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.
- f. Managing flooding and downstream impacts with an awareness of impending regional growth.

#### **E. Applicability and Jurisdiction.**

1. **General.** Beginning with and subsequent to its effective date, this ordinance shall be applicable to all Development and Redevelopment, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to subsection (2) of this section, Exemptions.
2. **Exemptions.** Development that cumulatively disturbs less than 20,000 square feet and is not part of a larger common plan of Development or Sale is exempt from the provisions of this ordinance. This exemption does not relieve any



Development from Neuse Buffer Rules or other applicable federal, state, or local laws. Redevelopment that cumulatively disturbs less than 20,000 square feet and is not part of a Larger Common Plan of Development or Sale is exempt from the provisions of this ordinance. This exemption does not relieve any Development from Neuse Buffer Rules or other applicable federal, state, or local laws.

Development and Redevelopment that disturb less than 20,000 square feet are not exempt if such activities are part of a larger common plan of or sale, even though multiple, separate, or distinct activities take place at different times on different schedules. Activities that are exempt from permit requirements of Section 404 of the federal Clean Water Act as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this ordinance.

3. **No Development or Redevelopment Until Compliance and Permit.** No Development or Redevelopment shall occur except in compliance with the provisions of this ordinance or unless exempted. No Development for which a permit is required pursuant to this ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.
4. **Map.** The provisions of this ordinance shall apply within the areas designated as the municipal incorporated area and extraterritorial jurisdiction on the town's Official Zoning Map, which is adopted simultaneously herewith. The Zoning Map shall be kept on file by the Town and shall be amended from time to time to include changes in the land area covered by this ordinance. In the event of a dispute, the applicability of this ordinance to a particular area of land or BMP shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

#### F. Interpretation.

1. **References to Statutes, Regulations and Documents.** Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the North Carolina Stormwater Best Management Practices Manual, hereinafter "the Design Manual"), or document, it shall be construed as a reference to the most

recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

#### G. **North Carolina Stormwater Best Management Practices Design Manual.**

1. **Reference to Design Manual.** The Stormwater Administrator or his or her designee shall use the policy, criteria, and information, including technical specifications and standards, in the Design Manual as the basis for decisions about stormwater permits and about the design, implementation and performance of Structural and non-structural stormwater BMPs. The Design Manual includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II laws.
2. **Relationship of Design Manual to Other Laws and Regulations.** If the specifications or guidelines of the Design Manual are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the Design Manual.

#### H. **Relationship to Other Laws, Regulations and Private Agreements.**

1. **Conflict of Laws.** This ordinance is not intended to modify or repeal any other ordinance, rule, regulation, or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation, or other provision of law. Where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards shall control.
2. **Private Agreements.** This ordinance is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this ordinance are more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this ordinance shall govern. Nothing in this ordinance shall modify or repeal any private covenant or deed restriction, but such covenant or

restriction shall not legitimize any failure to comply with this ordinance. In no case shall the Town be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

- I. **Severability.** If the provisions of any section, subsection, paragraph, subdivision, or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision, or clause of this ordinance.
- J. **Effective Date and Transitional Provisions.**
  1. **Effective Date.** This Ordinance shall take effect on August 3, 2009.
  2. **Final Approvals, Complete Applications.** All Development and Redevelopment projects for which complete and full applications were submitted and accepted as complete by the Town prior to the effective date of this ordinance and which remain valid, unexpired, unrevoked and not otherwise terminated at the time of Development or Redevelopment shall be exempt from complying with all provisions of this ordinance dealing with the control and/or management of post-construction runoff, but shall be required to comply with all other applicable provisions. A phased Development plan shall be deemed approved prior to the effective date of this ordinance if it has been approved by all necessary government units, it remains valid, unexpired, unrevoked, and not otherwise terminated, and it shows:
    - a. For the initial or first phase of Development: the type and intensity of use for a specific parcel or parcels. This shall include, at a minimum, the boundaries of the project and a subdivision plan that has been approved.
    - b. For any subsequent phase of Development: sufficient detail showing that implementation of the requirements of this ordinance to that phase of Development would require a material change in that phase of the plan.
  3. **Violations Continue.** Any violation of provisions existing on the effective date of this ordinance shall continue to be a violation under this ordinance and be subject to penalties and enforcement under this ordinance unless the use,

Development, construction, or other activity complies with the provisions of this ordinance.

### 1.2.2. STORMWATER DEFINITIONS

When used in this Ordinance, the following words and terms shall have the meaning set forth in this section, unless other provisions of this Ordinance specifically indicate otherwise.

*Built-upon Area (BUA).* That portion of a Development project that is covered by impervious or partially impervious surface including, but not limited to, buildings, pavement, and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. "Built-upon Area" does not include a wooden slatted deck, the water area of a swimming pool, or Permeable Pavement that meets the standards outlined in the North Carolina Division of Water Quality Stormwater Best Management Practices Manual.

*Density.* The calculation of the total Impervious Area of a project divided by the total project area. Surface water bodies shall be included in calculations of project Density.

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

*Design Manual.* The North Carolina Department of Environment and Natural Resources, Division of Water Quality Stormwater Best Management Practices Manual approved for use in Phase II jurisdictions by the Department for the proper implementation of the requirements of the federal Phase II stormwater program. All references herein to the Design Manual are to the latest published edition or revision.

*Development.* Any land-disturbing activity that increases the amount of built-upon area or that otherwise decreases the infiltration of precipitation into the soil.

*Division.* The Division of Water Quality in the North Carolina Department of Environment and Natural Resources.

*Flood Protection Zone.* The FEMA 100-year floodplain as identified on the current Flood Insurance Rate Map (FIRM) published by FEMA.

*High-Density Project.* A project is a High-Density Project if it has more than 24 percent Built-upon Area (BUA) based on total project acreage for all residential and non-residential Development. Any project that exceeds the low-Density threshold for Built-upon Area.

*Impervious Area.* Impervious Areas are those surfaces which prevent the infiltration of or impede the rate of infiltration of stormwater into the soil as compared with the natural conditions prior to Development. Common Impervious Areas include, but are not limited to, compacted surfaces used for pedestrian and vehicular travel or parking and other surfaces

which prevent or impede the natural infiltration of stormwater runoff that existed prior to Development.

*Larger Common Plan of Development or Sale.* Any area where multiple separate and distinct construction or land-disturbing activities will occur under one plan. A plan is any announcement or piece of documentation (including but not limited to a sign, public notice or hearing, sales pitch, advertisement, loan application, drawing, permit application, zoning request, subdivision application or computer design) or physical demarcation (including but not limited to boundary signs, lot stakes, or surveyor markings) indicating that construction activities may occur on a specific plot.

*Low-Density Project.* A project is a Low-Density Project if it has more than 15 percent Built-upon Area (BUA) and no more than 24 percent Built-upon Area (BUA) based on total project acreage for all residential and non-residential Development.

A project with an overall Density at or below the relevant low-Density threshold, but containing areas with a Density greater than the overall project Density, may be considered Low Density as long as the project meets or exceeds the post-construction model practices for Low-Density Projects and locates the higher Density in upland areas and away from surface waters and drainageways to the maximum extent practicable.

*Non-structural BMP.* A practice that is intended to reduce the impacts of stormwater runoff by minimizing pollution at the source and that is not a physical device constructed to control or treat stormwater runoff. Examples of Non-Structural BMPs include reducing Impervious Areas, making use of existing natural features and systems, reforestation, and cluster Development.

*One-year, 24-hour Storm.* The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.

*Owner.* The legal or beneficial Owner of land, including but not limited to a mortgagee or vendee in possession, receiver, executor, trustee, or long-term or commercial lessee, or any other person or entity holding proprietary rights in the property or having legal power of management and control of the property. "Owner" shall include long-term commercial tenants; management entities, such as those charged with or engaged in the management of properties for profit; and every person or entity having joint ownership of the property.

*Perennial or Intermittent Surface Waters.* A Perennial or Intermittent Surface Water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States

Department of Agriculture (USDA) 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). An exception to this requirement shall be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using Division-approved methodology.

*Permeable Pavement.* An alternative to conventional concrete and asphalt paving materials that allows for infiltration of storm water into a storage area, with void spaces that provide temporary storage.

*Redevelopment.* Any Development on previously-developed land, other than a rebuilding activity that results in no net increase in Built-upon Area and provides equal or greater stormwater control than the previous Development.

*Riparian Buffer Zone.* Any area extending 50 feet landward of all Perennial and Intermittent Surface Waters.

*Stormwater Administrator.* The official assigned by the Town Manager, including the official's duly authorized agent or delegate, charged with the administration and enforcement of this ordinance, which includes but is not limited to the responsibility to make decisions about stormwater permits, the design, implementation and performance of structural and Non-structural BMPs; to make determinations and render interpretations of this ordinance; to establish application requirements and schedules; to enforce the provisions of this ordinance, and to designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.

*Stormwater Management Practice.* Any practice designed to reduce the impacts of stormwater runoff, including both Structural and Non-structural BMPs.

*Structural BMP.* A physical device designed to trap, settle out, or filter pollutants from stormwater runoff; to alter or reduce stormwater runoff velocity, amount, timing, or other characteristics; to approximate the pre-Development hydrology on a developed site; or to achieve any combination of these goals. Structural BMP includes physical practices such as constructed wetlands, vegetative practices, filter strips, grassed swales, and other methods installed or created on real property.

*Substantial Progress.* For the purposes of determining whether sufficient progress has been made on an approved plan, one or more of the following construction activities toward the completion of a site or subdivision plan shall occur: obtaining a grading permit and conducting grading activity; or installation and approval of on-site infrastructure; or obtaining a building

permit for the construction and approval of a building foundation. "Substantial Progress" for purposes of determining whether an approved plan is null and void is not necessarily the same as "substantial expenditures" used for determining vested rights pursuant to applicable law.

*Two-year, 24-hour Storm.* The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in two years and with a duration of 24 hours.

*Ten-year, 24-hour Storm.* The surface runoff resulting from a 24-hour rainfall of an intensity expected to be equaled or exceeded, on average, once in ten years and with a duration of 24 hours.

*Ultra Low-Density Project.* A project is an Ultra Low-Density Project if it has 15 percent or less Built-upon Area (BUA) based on total project acreage for all residential and non-residential Development. A project with an overall Density at or below the relevant ultra low-Density threshold, but containing areas with a Density greater than the overall project Density, may be considered ultra low-Density as long as the project meets or exceeds the post-construction model practices for Ultra Low-Density Projects and locates the higher Density in upland areas and away from surface waters and drainageways to the maximum extent practicable.

### 1.2.3. ADMINISTRATION AND PROCEDURES

#### A. **Review and Decision-Making Entities**

##### 1. **Stormwater Administrator (As Designated By Land Development Administrator)**

- a. **Designation** A Stormwater Administrator shall be designated by the Town Board to administer and enforce this ordinance.
- b. **Powers and Duties** In addition to the powers and duties that may be conferred by other provisions of the Code of the Town of Rolesville and other laws, the Stormwater Administrator shall have the following powers and duties under this ordinance:
  - i. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this ordinance.
  - ii. To make determinations and render interpretations of this ordinance.

- iii. To enforce the provisions of this ordinance in accordance with its enforcement provisions.
- iv. To maintain records, maps, forms, and other official materials as they relate to the adoption, amendment, enforcement, and administration of this ordinance.
- v. To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
- vi. To take any other action necessary to administer the provisions of this ordinance.

## B. Review Procedures

1. **Permit Required; Must Apply for Permit.** A stormwater permit is required for all Development and Redevelopment unless exempt pursuant to this ordinance. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.
2. **Effect of Permit.** A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including Structural BMPs and elements of site design for stormwater management other than Structural BMPs. The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the Development or Redevelopment site consistent with the requirements of this ordinance, whether the approach consists of Structural BMPs or other techniques such as low-impact or low-Density design. The permit does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this ordinance.
3. **Authority to File Applications.** All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the Owner or the Owner's duly authorized agent.
4. **Establishment of Application Requirements, Schedule, and Fees**



- a. **Application Contents and Form** The Stormwater Administrator shall establish requirements for the content and form of all applications and shall amend and update those requirements from time to time. At a minimum, the stormwater permit application shall describe in detail how post-Development stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this ordinance.
  - b. **Submission Schedule** The Stormwater Administrator shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications, and that the various stages in the review process are accommodated.
  - c. **Permit Review Fees** Permit review fees as well as policies regarding refund of any fees upon withdrawal of an application shall be established and may be amended and updated from time to time.
  - d. **Administrative Manual** For applications required under this Code, the Stormwater Administrator shall compile the requirements and information on how and where to obtain the Design Manual in an Administrative Manual, which shall be made available to the public.
5. **Submittal of Complete Application.** Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section. An application shall be considered a complete submittal only when it contains all elements of a complete application pursuant to this ordinance and the Wake County Erosion and Sedimentation Control regulations, if applicable, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.

6. **Review.** Within 30 working days after a complete application is submitted, the Stormwater Administrator shall review the application and determine whether the application complies with the standards of this ordinance.
  - a. **Approval** If the Stormwater Administrator finds that the application complies with the standards of this ordinance and the Wake County Erosion and Sedimentation Control regulations, if applicable, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this ordinance. The conditions shall be included as part of the approval.
  - b. **Fails to Comply** If the Stormwater Administrator finds that the application fails to comply with the standards of this ordinance and the Wake County Erosion and Sedimentation Control regulations, if applicable, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application.
  - c. **Revision and Subsequent Review** A complete revised application shall be reviewed by the Stormwater Administrator within 15 working days after its re-submittal and shall be approved, approved with conditions, or disapproved. If a revised application is not re-submitted within six months from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee for a new submittal.

### C. Applications for Approval

1. **Concept Plan and Consultation Meeting** Before a stormwater management permit application is deemed complete, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed Development. This consultation meeting should take place at the time of the preliminary plan of subdivision or other early step in the Development process. The purpose of this

meeting is to discuss the post-construction stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities, and potential approaches to stormwater management designs before formal site design engineering is commenced. Local watershed plans, the Zebulon and Rolesville Open Space and Greenway Master Plan, the Framework Plan (as described in the Town of Rolesville Comprehensive Plan), and other relevant resource protection plans should be consulted in the discussion of the concept plan. To accomplish this goal, the following information should be included in the concept plan, which should be submitted in advance of the meeting:

- a. **Existing Conditions / Proposed Site Plans** Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; Perennial and Intermittent streams; mapping of predominant soils from soil surveys (if available); boundaries of existing predominant vegetation; proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.
- b. **Natural Resources Inventory** A written and graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers, Flood Protection Zones, and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for Development and stormwater management.
- c. **Stormwater Management System Concept Plan** A written and graphic concept plan of the proposed post-Development stormwater management system including: preliminary selection and location of proposed structural stormwater controls; low-impact design elements;

location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

## 2. Stormwater Management Permit Application

- a. **Purpose.** The stormwater management permit application shall detail how post-Development stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this ordinance.
- b. **Downstream Impact Analysis.** As part of the permit application, all Development and Redevelopment shall perform a Downstream Impact Analysis as specified in Section 1.2.4.B.1.
- c. **Plan Certification.** All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area(s) of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the Design Manual, and that the designs and plans ensure compliance with this ordinance. The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator.

### D. Approvals

1. **Effect of Approval.** Approval authorizes the applicant to go forward with only the specific plans and activities authorized in the permit. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.

2. **Time Limit/Expiration.** An approved plan shall become null and void if the applicant fails to make Substantial Progress on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan. In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

#### E. Appeals

1. **Right of Appeal.** Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this ordinance made by the Stormwater Administrator, may file an appeal to the town's designated Appeal Board within 30 days.
2. **Filing of Appeal and Procedures.** Appeals shall be taken within the specified time period by filing a notice of appeal and specifying the grounds for appeal on forms provided by the town. The Stormwater Administrator shall transmit to the town's designated Appeal Board all documents constituting the record on which the decision appealed from was taken. The hearing conducted by the town's designated Appeal Board shall be conducted in the nature of a quasi-judicial proceeding with all findings of fact supported by competent, material evidence.
3. **Review by Superior Court.** Every decision of the town's designated Appeal Board shall be subject to Superior Court review by proceedings in the nature of certiorari. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within 30 days after the latter of the following:
  - a. The decision of the town's designated Appeal Board is filed; or
  - b. A written copy of the decision is delivered to every aggrieved party who has filed a written request for such copy with the (Chair or Secretary of the board that will hear appeals) at the time of its hearing of the case.

#### 1.2.4. STANDARDS

##### A. Standards Based on Project Density.

1. **Development Standards for Ultra Low-Density and Low-Density Projects** Ultra Low-Density Projects and Low-Density Projects shall comply with each of the following standards, in addition to the General Standards found in subsection B in this section.
  - a. Stormwater runoff from the Development shall be transported from the Development by vegetated conveyances to the maximum extent practicable.
  - b. All Development and Redevelopment shall be located outside the Riparian Buffer Zone and the Flood Protection Zone. These Zones shall be in accordance with the following provisions:
    - i. Except where other applicable buffer standards are more restrictive, the Riparian Buffer Zone shall extend a minimum of fifty (50) feet landward of all Perennial and Intermittent Surface Waters. The most restrictive standards shall apply.
    - ii. The Riparian Buffer Zone shall remain undisturbed unless otherwise permitted by this section.
    - iii. The Flood Protection Zone shall extend throughout the FEMA 100-year floodplain as identified on the current Flood Insurance Rate Map (FIRM) published by FEMA. The Flood Protection Zone shall remain undisturbed unless otherwise permitted by this section.
    - iv. No Development or Redevelopment is permitted within the Riparian Buffer Zone or the Flood Protection Zone except for stream bank or shoreline restoration or stabilization, water dependent structures, and public or private projects such as road crossings and installations, utility crossings and installations, and greenways, where no practical alternatives exist.
    - v. Permitted activities within the Riparian Buffer Zone and the Flood Protection Zone shall minimize impervious coverage,

direct runoff away from surface waters to achieve diffuse flow, and maximize the utilization of Non-structural BMPs.

- vi. Where the Riparian Buffer Zone and the Flood Protection Zone both are present adjacent to surface waters, the more restrictive shall apply.
  - c. The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future owners maintain the site consistent with the approved project plans.
  - d. All Development and Redevelopment projects required to manage storm water shall provide permanent on-site BMPs to lower the nitrogen export amounts as part of the storm water management plan. BMPs are to be in accordance with and as specified in the Design Manual.
  - e. For Low-Density Projects only, structural, and Non-structural BMPs shall be used to ensure there is no net increase in peak flow leaving the site from the pre-Development conditions for the one-year, 24-hour storm. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.
  - f. General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Design Manual;
  - g. Developers must manage runoff so that after Development the site will not exceed the Target Curve Numbers in the table in subsection A.3 of this section.
  - h. Ultra Low-Density Projects and Low-Density Projects may be eligible for target curve number credits, as described in subsection B, below.
2. **Maximum Curve Number after Development** Developers must manage runoff so that after Development the site will not exceed the following composite curve numbers, in accordance with procedures specified in the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, Urban Hydrology for Small Watersheds.

Table 1.2.4.

Project Density	Maximum Composite Curve Number, by Soil Group			
	A	B	C	D
Ultra-Low	43	63	76	81
Low	48	66	78	83
High	N/A	N/A	N/A	N/A

**3. Target Curve Number Credits**

- a. **Purpose** The purpose of establishing a stormwater credit system is to provide incentives to implement better site design and locate new Development in a manner that causes less impact to aquatic resources. Certain Development practices reduce the generation of stormwater from the site; thereby reducing the size and cost of stormwater storage. In addition, these practices can provide partial removal of many pollutants. The credit system directly translates into cost savings and better protection of water resources.
- b. **Disconnected Impervious Surfaces** Disconnected impervious surfaces, included permeable pavers, are encouraged. Runoff from these disconnected surfaces must be spread over pervious areas as sheet flow. As a credit, these disconnected impervious surfaces will be assigned the lower curve number specified by procedures of the United States Department of Agriculture, Natural Resources Conservation Service, Technical Release 55, Urban Hydrology for Small Watersheds.
- c. **Reforestation** The planting of trees and shrubs is encouraged as a means of reducing runoff. As a credit for such practices, reforested areas in dedicated open space will be assigned the curve number for woods in good condition per procedures in the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), Technical Release 55, Urban Hydrology for Small Watersheds. Areas planted with trees or shrubs must meet the following standards to qualify for the credit.
  - i. **Tree/Shrub Density and Spacing** Planted trees or shrubs must meet the minimum Density and spacing standards of the NRCS,



as specified in the Field Office Technical Guide. Existing trees or shrubs may be used toward meeting the planting standard.

- ii. **Mulching** An initial application of mulch is required for the area designated for reforestation. Mulching must meet applicable standards of the NRCS, as specified in the Field Office Technical Guide. Existing groundcover may be used toward meeting the mulching standard.
        - d. **Cluster, Conservation and Open Space Subdivisions** Cluster, conservation and open space subdivisions are encouraged. In applying curve number calculations to such developments, calculations must take into account the lots' proportionate share of right-of-way and permanent open space.
        - e. **Calculations Regarding Ponds, Lakes, and Streams** Surface water bodies may not be assigned a curve number for impervious surfaces. Instead, such water bodies will be removed from calculations so that developments are not penalized for their presence. Surface water bodies shall be included in calculations of project Density.
4. **Development Standards for High-Density Projects** High-Density Projects shall implement stormwater control measures that comply with each of the following standards, in addition to the General Standards found in subsection B of this section:
  - a. The measures shall control and treat runoff from the first inch of rain. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.
  - b. All structural stormwater treatment systems used to meet these requirements shall be designed to have a minimum of 85 percent average annual removal for Total Suspended Solids (TSS).
  - c. All Development and Redevelopment projects required to manage storm water shall provide permanent on-site BMPs to lower the nitrogen export amounts as part of the storm water management plan. BMPs are to be in accordance with and as specified in the Design Manual.

- d. Structural and Non-structural BMPs shall be used to ensure there is no net increase in peak flow leaving the site from the pre-Development conditions for the one-year, 24-hour storm. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.
- e. General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Design Manual;
- f. All Development and Redevelopment shall be located outside the Riparian Buffer Zone and the Flood Protection Zone. These Zones shall be in accordance with the following provisions:
  - i. Except where other applicable buffer standards are more restrictive, the Riparian Buffer Zone shall extend a minimum of 50 feet landward of all Perennial and Intermittent Surface Waters. The most restrictive standards shall apply.
  - ii. The Riparian Buffer Zone shall remain undisturbed unless otherwise permitted by this section.
  - iii. The Flood Protection Zone shall extend throughout the FEMA 100-year floodplain as identified on the current Flood Insurance Rate Map (FIRM) published by FEMA. The Flood Protection Zone shall remain undisturbed unless otherwise permitted by this section.
  - iv. No Development or Redevelopment is permitted within the Riparian Buffer Zone or the Flood Protection Zone except for stream bank or shoreline restoration or stabilization, water dependent structures, and public or private projects such as road crossings and installations, utility crossings and installations, and greenways, where no practical alternatives exist.
  - v. Permitted activities within the Riparian Buffer Zone and the Flood Protection Zone shall minimize impervious coverage, direct runoff away from surface waters to achieve diffuse flow, and maximize the utilization of Non-structural BMPs.

- vi. Where the Riparian Buffer Zone and the Flood Protection Zone both are present adjacent to surface waters, the more restrictive shall apply.
- g. The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future Development and Redevelopment maintains the site consistent with the approved project plans. Buffer widths and locations shall be clearly delineated on all plans, final plat, and as-builts.

#### **B. General Standards.**

1. **Downstream Impact Analysis** The downstream impact analysis must be performed in accordance with the "ten percent rule," and a copy of the analysis must be provided with the permit application. The purpose of the downstream impact analysis is to determine if the project will cause any impacts on flooding or channel degradation downstream of the project site. The analysis must include the assumptions, results and supporting calculations to show safe passage of post-Development design flows downstream. This analysis shall be performed at the outlet(s) of the site, and downstream at each tributary junction to the point(s) in the conveyance system where the area of the portion of the site draining into the system is less than or equal to ten percent of the total drainage area above that point. The typical steps in the application of the ten percent rule are:
  - a. Using a topographic map, determine the point downstream where the proposed site equals ten percent of the total drainage area, called the ten percent point. Identify all tributary junctions between the downstream site boundary and the ten percent point. All points identified, as well as the outlet of the site, are known as ten percent rule comparison points.
  - b. Using a hydrologic model with existing land uses, determine the pre-Development peak runoff rate (cfs) for the ten-year design storm event at each comparison point.

- c. Insert the proposed site design and proposed BMPs into the land uses and determine the post-Development peak runoff rate for the ten-year design storm at each comparison point.
- d. If the post-Development peak discharge rate is equal to or less than pre-Development conditions at all comparison points, no further analysis is required.
- e. If the ten-year post-Development peak discharge rate is greater than the pre-Development peak discharge rate at any comparison point, then one of the following actions must be taken:
  - i. Revise the site plan for the proposed site to incorporate better use of natural features, design additional structural control facilities, reduce impervious cover, or alter timing of peak flows to lower post-Development flows at each comparison point to pre-Development levels.
  - ii. Obtain a flow easement from downstream property owners through the ten percent point where the post-Development peak discharge rate is higher than the pre-Development peak discharge rate.
  - iii. Work with the Town to determine other acceptable approaches to reduce the peak discharge rate for the ten-year storm. For further information on the ten percent rule, refer to the Stormwater Manual, available online.

## 2. Standards for Stormwater Control Measures.

### a. Evaluation According to Contents of Design

**Manual** All stormwater control measures and stormwater treatment practices (or BMPs) required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Design Manual. The Stormwater Administrator shall determine whether proposed BMPs will be adequate to meet the requirements of this ordinance.

- b. **Determination of Adequacy; Presumptions and Alternatives.** Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.
  - c. **Separation from Seasonal High Water Table** For BMPs that require a separation from the seasonal high-water table, the separation shall be provided by at least 12 inches of naturally occurring soil above the seasonal high-water table.
  - d. **Changes to Stormwater Plan Based on Emerging Technologies** Subject to the standards of this ordinance and other applicable law, a developer, in conjunction with the Development's lot owners, may submit an application to revise the approved stormwater plan so as to use new technologies or best management practices not available when the original stormwater plan was approved. Innovative technologies may be used on a demonstration basis for a period of one year while simultaneously collecting data on the effectiveness of the technology according to its design. If at the end of the demonstration period the technology is not performing according to its intended design functions as judged by the Stormwater Administrator, the developer must retrofit the site with a standard technology.
3. **Additional Stormwater Management Measures.** In some cases, the Stormwater Administrator may require more stringent stormwater management measures where it is determined that

additional measures are required to protect water quality and maintain existing and anticipated uses of these waters or to minimize off-site damage from stormwater runoff in accordance with the purpose of this ordinance as defined in this section.

4. **Dedication of BMPS, Facilities & Improvements** The Town may elect to accept dedication of any existing or future stormwater management facility for maintenance, provided such facility meets all the requirements of this ordinance and includes adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.
5. **Low Impact Development Project Classifications.**
  - a. All Development or Redevelopment to which this ordinance applies may be submitted for classification as a Low Impact Development (LID) Project.
  - b. Classification as a Low Impact Development Project requires that the Development mimic the pre-developed hydrologic conditions defined as woods in good condition for the two-year, 24-hour storm, within ten percent. The pre-developed conditions shall include: its hydrologic balance, frequency distribution of high flows; magnitude, frequency, and duration of low flows; groundwater recharge (or infiltration), and flow length and pattern. The conditions shall be measured through the comparison between measures of the pre-developed and developed conditions including: total runoff volume, time of concentration, curve number, and peak discharge. Mimicry of the pre-developed hydrologic conditions may be achieved through such techniques as the minimization of disturbed areas and the use of on-lot distributed retention storage as described in more detail on Wake County's Stormwater Web Site under Low Impact Development.
  - c. The following techniques must be used to achieve LID classification:
    - i. Natural site design in consultation with the town;
    - ii. Site buildings, roads, and other land disturbance in the least environmentally-sensitive areas, preserving steep slopes, naturally well-draining soils, and other hydrologically valuable features undisturbed;

- d. In addition, one of the following two techniques must be used to achieve LID classification:
  - i. Bio-retention systems;
  - ii. On-site infiltration;
- e. In addition, at least two of the following techniques must be used to achieve LID classification:
  - i. Retention of 50 percent of vegetated area, including open space, landscaping, or forests;
  - ii. Use of Permeable Pavement for all private driveways, private roads, sidewalks, and parking areas in accordance with the North Carolina Stormwater Best Management Practices Design Manual;
  - iii. Installation of one rain cistern per lot or three rain barrels per lot;
  - iv. Installation of vegetated roofs;
  - v. Increasing all buffers in the Riparian Buffer Zone or the Flood Protection Zone, whichever is greater, by 50 feet, in accordance with this section for Low-Density, Ultra Low-Density Projects, and High-Density Projects.
  - vi. Use of reclaimed water for all buildings in accordance with State and local laws.
  - vii. Use of innovative LID techniques subject to the approval of the town.
- f. For Development and Redevelopment projects achieving classification as LID Projects, the Stormwater Administrator shall reduce or waive the stormwater permit fee if stipulated in the fee schedule duly adopted by the applicable governing board.
- g. Upon collaboration with the Planning Board, the Stormwater Administrator may develop and apply an expedited review schedule for Development or Redevelopment projects achieving classification as LID Projects. Such a review schedule will depend upon the continued availability of local government resources to conduct expedited reviews.

- C. **Onsite Wastewater** Onsite wastewater disposal systems shall be operated and maintained in accordance with the Regulations Governing Sewage Treatment and Disposal Systems in Wake County (Regulations) adopted by the Wake County Board of Human and Environmental Services and enforced by Wake County Onsite systems shall be inspected, permitted, repaired and/or professionally operated in accordance with the Regulations and in a manner to prevent adverse impacts to surface water and groundwater. The Town of Rolesville and WCES shall collaborate on identification of areas of high risk for system failures and associated need for environmental surveys, system repairs and possible service by municipal utilities.

#### 1.2.5. COMPLETION OF IMPROVEMENTS AND MAINTENANCE

- A. **Performance Security for Installation and Maintenance of Improvements** The Town may, at its discretion, require the submittal of a performance bond, letter of credit from, or cash escrow account with a local bank prior to issuance of a permit. If improvements are not installed prior to approval of a record plat, the Town shall require the submittal of a performance bond, letter of credit from, or cash escrow account with a local bank prior to issuance of a permit. This performance security is required in order to ensure that the Structural BMPs are Installed by the permit holder as required by the approved stormwater management plan, and/or maintained by the Owner as required by the operation and maintenance agreement.
1. **Form and Amount of Installation Performance Security.** The amount of an installation performance security must equal at least 125 percent of the estimated cost of the required improvements, including project management costs that have not been installed by the time of Record Plat submittal.
  2. **Form and Amount of Maintenance Performance Security.** The amount of a maintenance performance security must be at least 125 percent of the total estimated construction cost of the Structural BMPs approved under the permit.
  3. **Uses of Performance Security for Installation.**
    - a. **Forfeiture Provisions.** The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or Owner in accordance with this ordinance,



- approvals issued pursuant to this ordinance, or an operation and maintenance agreement established pursuant to this ordinance.
- b. **Default.** Upon default of the Owner to construct, maintain, repair and, if necessary, reconstruct any Structural BMP in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the Owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the Town shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.
  - c. **Costs in Excess of Performance Security.** If the Town takes action upon such failure by the applicant or Owner or property owners' association, the Town may collect from the applicant or Owner or property owners' association the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.
  - d. **Refund.** Within 60 days of the final approval, the installation performance security shall be refunded to the applicant or terminated, except any amount attributable to the cost (plus 25 percent) of landscaping installation and ongoing maintenance associated with the BMPs covered by the security. Any such landscaping shall be inspected one year after installation with replacement for compliance with the approved plans and specifications and, if in compliance, the portion of the financial security attributable to landscaping shall be released.
4. **Uses of Performance Security for Maintenance.**
- a. **Forfeiture Provisions** The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or Owner in accordance with this ordinance, approvals issued pursuant to this ordinance, or an operation and maintenance agreement established pursuant to this ordinance.

- b. **Default.** Upon default of the Owner to construct, maintain, repair and, if necessary, reconstruct any Structural BMP in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the Owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the Town shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.
        - c. **Costs in Excess of Performance Security.** If the Town takes action upon such failure by the applicant or Owner or property owners' association, the Town may collect from the applicant or Owner or property owners' association the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.
- B. **As-Built Plans and Final Approval.** Upon completion of a project, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual "as built" plans in both digital file (one copy) and mylar formats (three mylars) for all stormwater management facilities or practices after final construction is completed. The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance. A final inspection and approval by the stormwater Administrator shall occur before the release of any performance securities. No certificate of compliance or occupancy shall be issued without final as-built plans and a final inspection, or performance guarantees, and approval by the Stormwater Administrator.
- C. **Maintenance of Improvements.**

1. **Maintenance Required** All structural and Non-structural BMPs must be maintained so they will continue to serve their intended functions.
2. **Parties Responsible for Maintenance of Structural BMPs.**
  - a. The developer must maintain structural and Non-structural BMPs until accepted by a property owners' association or lot Owner. All Structural BMPs required for residential subdivisions, including those on individual lots, must be accepted for maintenance by a property owners' association. The developer must disclose which party will be responsible for continued maintenance on the record plat and on the stormwater management plan.
  - b. Before improvements are accepted for maintenance by the property owners' association or lot Owner, the developer or the developer's engineer or other representative, as authorized by Statute, must certify to the property owners' association or lot Owner and to the Town that improvements are complete and functioning as designed.
  - c. If a property owners' association or similar legal entity is to be responsible for the maintenance and control of BMPs, it shall be established so that it has clear legal authority to maintain and exercise control over, including the power to compel contributions from subdivision property owners to cover their proportionate shares of the costs associated with the maintenance of the BMPs. Such association shall be established prior to approval of the final plat.
  - d. Documents providing for the establishment of a homeowners' association or similar legal entity in accord with this ordinance shall be approved by the Stormwater Administrator before any plat is recorded.
3. **Maintenance Plan.**
  - a. The developer must record, and reference on the record plat, a maintenance plan that instructs the property owners' association or lot Owner about the annual maintenance tasks and associated costs for at least a 20-year period.
  - b. It will be the responsibility of the property owners' association or lot Owner to update the maintenance plan at least every ten years in perpetuity.

**4. Maintenance Agreement.**

- a. The developer must record, and reference on the record plat, a maintenance agreement, or restrictive covenant that sets forth the property owners' association's or lot Owner's continuing responsibilities for maintenance, including specifying how cost will be apportioned among lot owners served.
- b. The maintenance agreement must provide that the association and its individual members are jointly and severally liable for maintenance.
- c. The maintenance agreement shall grant to the Town a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair or reconstruct the structural and Non-structural BMPs; however, in no case shall the right of entry, of itself, confer an obligation on the Town to assume responsibility for the structural and Non-structural BMPs.

**5. Maintenance Easement** The developer must record easements for access, maintenance, and inspections by any property owners' association and by the town.

**6. Annual Maintenance Inspection and Report.**

- a. The person or entity responsible for maintenance of any structural and Non-structural BMPs installed pursuant to this ordinance shall submit to the Stormwater Administrator an annual inspection report from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance.
- b. Annual inspection reports are due by June 30 of each year. The first annual report is due by June 30 following one year after approval of the as-built plan. For Structural BMPs located on properties subject to property owners' association agreements, the property owners' association is responsible for collecting and submitting information on all individual lot Structural BMPs installed pursuant to this ordinance on an annual basis. The inspection report shall contain all of the following:

The name and address of the land Owner; the recorded book and page number of the lot of each structural and Non-structural BMPs; a statement that an inspection was made of all structural and Non-structural BMPs; the date the inspection was made; a statement that all inspected structural and Non-structural BMPs are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance; and the original signature and seal of the engineer, surveyor, or landscape architect.

- c. All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator by the first day of July following the issuance of a certificate of occupancy. Subsequent annual reports shall be due on the first day of July each year.

D. **Inspection Program** Inspections and inspection programs by the Town may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in BMPs; and evaluating the condition of BMPs. If the Owner or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. § 15-27.2 or its successor. No person shall obstruct, hamper, or interfere with the Stormwater Administrator while carrying out his or her official duties, including inspections on private property. Refusal of Owner or occupant of any property to permit such inspection is a violation of this ordinance.

E. **Signage** Where appropriate in the determination of the Stormwater Administrator to assure compliance with this ordinance, Structural BMPs shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

F. **Records of Installation and Maintenance Activities** The Owner of each Structural BMP shall keep records of inspections, maintenance, and repairs for at least five years from

the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

- G. **Nuisance** The Owner of each stormwater BMP, whether structural or Non-structural BMP, shall maintain it so as not to create or result in a nuisance condition.

### 1.2.6 ENFORCEMENT AND VIOLATIONS

#### A. General

1. **Authority to Enforce** The provisions of this ordinance shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of the town. Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of the town.
2. **Violation Unlawful** Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this ordinance, or the terms or conditions of any permit or other Development or Redevelopment approval or authorization granted pursuant to this ordinance, is unlawful and shall constitute a violation of this ordinance.
3. **Each Day a Separate Offense** Each day that a violation continues shall constitute a separate and distinct violation or offense.
4. **Responsible Persons/Entities** Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair, or maintain any structure, BMP, practice, or condition in violation of this ordinance shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists; or an Owner, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or Development of the property on which the violation occurs. For the purposes of this article, responsible person(s) shall include but not be limited to:
  - a. **Person Maintaining Condition Resulting In or Constituting Violation** An architect, engineer, builder, contractor, developer, agency, or any other

person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this ordinance, or fails to take appropriate action, so that a violation of this ordinance results or persists.

- b. **Responsibility for Land or Use of Land** The Owner of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, Development or Redevelopment of the property.

- B. **Remedies and Penalties** The remedies and penalties provided for violations of this ordinance, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

- 1. **Remedies.**

- a. **Withholding of a Building Permit** The Stormwater Administrator or other authorized agent may refuse to issue a building permit for a building or other improvements constructed or being constructed on any Development site and served by the Structural BMP in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.
- b. **Withholding of Certificate of Occupancy** The Stormwater Administrator or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.
- c. **Disapproval of Subsequent Permits and Development Approvals** As long as a violation of this ordinance continues and remains uncorrected, the Stormwater Administrator or other authorized agent may withhold, and the Board of Commissioners may disapprove, any request for permit or Development approval or authorization provided for by this

- ordinance or the zoning and subdivision ordinances for the land on which the violation occurs.
- d. **Injunction, Abatements, etc.** The Stormwater Administrator, with the written authorization of the Town Manager, may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a violation of this ordinance. Any person violating this ordinance shall be subject to the full range of equitable remedies provided in the General Statutes or at common law.
  - e. **Correction as Public Health Nuisance, Costs as Lien, etc.** If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by North Carolina G.S. § 160A-193, the Stormwater Administrator, with the written authorization of the Town Manager, may cause the violation to be corrected and the costs to be assessed as a lien against the property.
  - f. **Stop Work Order** The Stormwater Administrator may issue a stop work order to the person(s) violating this ordinance. The stop work order shall remain in effect until the person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein. The stop work order may be withdrawn or modified to enable the person to take the necessary remedial measures to cure such violation or violations.
2. **Civil Penalties** Violation of this ordinance may subject the violator to a civil penalty to be recovered in a civil action in the nature of a debt if the violator does not pay the penalty within 30 days after notice of the violation is issued by the Stormwater Administrator. Civil penalties may be assessed up to the full amount of penalty to which the Town of Rolesville is subject for violations of its Phase II Stormwater permit, or if no Phase II Stormwater permit exists for the jurisdiction, civil penalties may be assessed up to the full amount allowed by law.
  3. **Criminal Penalties** Violation of this ordinance may be enforced as a misdemeanor subject to the maximum fine permissible under North Carolina



law. A civil penalty may be assessed from the date of the violation. Each day of a continuing violation constitutes a separate violation.

**C. Procedures.**

1. **Initiation/Complaint** Whenever a violation of this ordinance occurs, or is alleged to have occurred, any person may file a written complaint. Such complaint shall state fully the alleged violation and the basis thereof, and shall be filed with the Stormwater Administrator, who shall record the complaint. The complaint shall be investigated promptly by the Stormwater Administrator.
2. **Inspection** The Stormwater Administrator shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with this ordinance.
3. **Notice of Violation and Order to Correct** When the Stormwater Administrator finds that any building, structure, or land is in violation of this ordinance, the Stormwater Administrator shall notify, in writing, the property Owner or other person violating this ordinance. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. If civil penalties are to be assessed, the notice of violation shall also contain a statement of the civil penalties to be assessed, the time of their accrual, and the time within which they must be paid or be subject to collection as a debt. The Stormwater Administrator may deliver the notice of violation and correction order personally, by the Code Enforcement Officer, by certified or registered mail, return receipt requested, or by any means authorized for the service of documents by Rule 4 of the North Carolina Rules of Civil Procedure. If a violation is not corrected within a reasonable period of time, as provided in the notification, the Stormwater Administrator may take appropriate action under this ordinance to correct and abate the violation and to ensure compliance with this ordinance.
4. **Extension of Time** A person who receives a notice of violation and correction order, or the Owner of the land on which the violation occurs, may submit to the Stormwater Administrator a written request for an extension of time for correction of the violation. On determining that the request includes enough

information to show that the violation cannot be corrected within the specified time limit for reasons beyond the control of the person requesting the extension, the Stormwater Administrator may extend the time limit as is reasonably necessary to allow timely correction of the violation, up to, but not exceeding 14 days. The Stormwater Administrator may grant seven-day extensions in addition to the foregoing extension if the violation cannot be corrected within the permitted time due to circumstances beyond the control of the person violating this ordinance. The Stormwater Administrator may grant an extension only by written notice of extension. The notice of extension shall state the date prior to which correction must be made, after which the violator will be subject to the penalties described in the notice of violation and correction order.

5. **Enforcement After Time to Correct** After the time has expired to correct a violation, including any extension(s) if authorized by the Stormwater Administrator, the Stormwater Administrator shall determine if the violation is corrected. If the violation is not corrected, the Stormwater Administrator may act to impose one or more of the remedies and penalties authorized by this ordinance.
6. **Emergency Enforcement** If delay in correcting a violation would seriously threaten the effective enforcement of this ordinance or pose an immediate danger to the public health, safety, or welfare, then the Stormwater Administrator may order the immediate cessation of a violation. Any person so ordered shall cease any violation immediately. The Stormwater Administrator may seek immediate enforcement, without prior written notice, through any remedy or penalty authorized by this article.
7. **Variations.**
  - a. Any person may petition the Town for a variance granting permission to use the person's land in a manner otherwise prohibited by this ordinance. To qualify for a variance, the petitioner must show all of the following:
    - i. Unnecessary hardships would result from strict application of this ordinance.

- ii. The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property.
  - iii. The hardships did not result from actions taken by the petitioner.
  - iv. The requested variance is consistent with the spirit, purpose, and intent of this ordinance; will secure public safety and welfare; and will preserve substantial justice.
- b. The Town may impose reasonable and appropriate conditions and safeguards upon any variance it grants.
- c. **Statutory exceptions** Notwithstanding subdivision (a) of this section, exceptions from the Riparian Buffer Zone and Flood Protection Zone requirements as well as the deed restrictions and protective covenants requirements shall be granted in any of the following instances:
  - i. When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.
  - ii. When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located 15 feet landward of all Perennial and Intermittent Surface Waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.

- iii. A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or Density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

### 1.2.7. ILLICIT DISCHARGES

#### A. Illicit Discharges and Connections.

1. **Illicit Discharges** 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 manner and amount that the substance is likely to reach a stormwater conveyance or the waters of the State, any liquid, 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. Water line flushing;
- b. Landscape irrigation;
- c. Diverted stream flows;
- d. Rising ground waters;
- e. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
- f. Uncontaminated pumped ground water;
- g. Discharges from potable water sources;
- h. Foundation drains;
- i. Air conditioning condensation;
- j. Irrigation water;
- k. Springs;
- l. Water from crawl space pumps;
- m. Footing drains;
- n. Lawn watering;
- o. Individual residential car washing;
- p. Flows from riparian habitats and wetlands;

- q. Dechlorinated swimming pool discharges;
- r. Street wash water; and
- s. Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by the State of North Carolina, and provided that any such discharges to the municipal separate storm sewer system shall be authorized by the town. Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal waste, paints, garbage, and litter.

## 2. **Illicit Connections.**

- a. 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.
- b. Where such connections exist in violation of this section and said connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property Owner or the person using said connection shall remove the connection within one year following the effective date of this ordinance. However, the one-year 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.
- c. Where it is determined that said connection:
  - i. 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
  - ii. Was made in violation of any applicable regulation or ordinance, other than this section. The Stormwater Administrator shall

designate the time within which the connection shall be removed. In setting the time limit for compliance, the Stormwater Administrator shall take into consideration: The quantity and complexity of the work, the consequences of delay, the potential harm to the environment, to the public health, and to public and private property, and the cost of remedying the damage.

3. **Spills.** Spills or leaks of polluting substances released, discharged to, or having the potential to be released or discharged to the stormwater conveyance system, shall be contained, controlled, collected, and properly disposed. All affected areas shall be restored to their preexisting condition. Persons in control of the polluting substances immediately prior to their release or discharge, and persons owning the property on which the substances were released or discharged, shall immediately notify the Rolesville Fire Chief of the release or discharge, as well as making any required notifications under state and federal law. 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 said spill or leak, nor shall such notification relieve any person from other liability which may be imposed by state or other law.
4. **Nuisance.** Illicit discharges and illicit connections which exist within the planning jurisdiction of the Town of Rolesville 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 sections 10-106 and 10-107 of the Code of the Town of Rolesville.