

# CHAPTER C – ENVIRONMENTAL ORDINANCE

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# C.1

## 1. PURPOSE AND AUTHORITY

### 1-1. SHORT TITLE

This Ordinance shall be known and may be cited as the *Chapter C Environmental Ordinance*, except as referred to herein, where it shall be known as *this Ordinance*.

### 1-2. PURPOSE

This Ordinance is enacted to promote the health, safety, and general welfare of the public by minimizing flood hazards and protecting water quality. Additional purposes of this ordinance include implementing the goals and objectives of the *Lewisville Tomorrow Comprehensive Plan*, other adopted land use plans, development guides and the *Lewisville Transportation Plan*.

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## 1-3. AUTHORITY

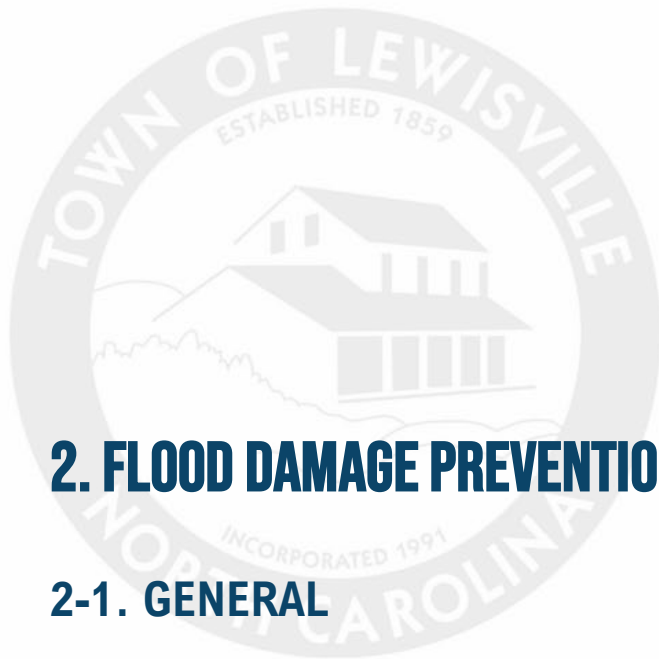
### 1-3.1. INTENT

By adopting the Ordinance, the Town of Lewisville intends to exercise its available power as authorized in the statutes cited in G.S. Chapter 160D to the maximum extent possible, as more fully set forth herein.

### 1-3.2. AMENDMENTS

This Ordinance may be amended in accordance with the provisions of *Section A.4-3.2 Unified Development Ordinance Text Amendments*, as may be amended.





## 2. FLOOD DAMAGE PREVENTION

### 2-1. GENERAL

#### 2-1.1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES

- A. **Statutory Authorization.** In Chapter 160D of the North Carolina General Statutes, the NC Legislature has delegated to local governments the responsibility to adopt and enforce regulations meant to protect and promote public health, safety, and welfare.

#### 2-1.2. FLOOD HAZARDS

- A. Flood-prone areas within the jurisdiction of the Town of Lewisville are subject to periodic inundation which results in loss of life and damage to real property. The safety hazards posed by flooding also impair the tax base, disrupt commerce and the

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provision of governmental services, and may result in extraordinary public expenditures.

- B. Flood losses are often the result of the cumulative effect of obstructions in flood-prone areas, including structures and uses of land, which can cause increases in flood velocity and severity.

### **2-1.3. STATEMENT OF PURPOSE**

It is the purpose of this Article to promote public health, safety, and general welfare and to minimize public and private losses due to flooding by establishing and enforcing provisions designed to:

- A. Restrict or prohibit uses that pose dangers to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
- B. Require that uses and structures vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which naturally mitigate floodwaters;
- D. Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
- E. Prevent or regulate the construction of flood barriers that will unnaturally divert floodwaters, or which may increase flood hazards to other lands.

### **2-1.4. OBJECTIVES**

The objectives of this Article are to:

- A. Protect human life;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business losses and interruptions;
- E. Minimize damage to public facilities and utilities that are located in flood-prone areas;

- F. Help maintain a stable tax base by providing for the appropriate development of flood-prone areas; and
- G. Ensure that potential landowners are aware when real property is located in a special flood hazard area.

### **2-1.5. DEFINITIONS**

Unless specifically defined below, words or phrases used in this Section shall be interpreted so as to give them the meaning they have in *Section A.2 Definitions* or in common usage and to give this Section its most reasonable application. The definitions of this section are specific only to this section. In the event of conflict with *Section A.2 Definitions* the definitions below shall control.

**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.

**ADDITION (TO AN EXISTING BUILDING)** means an extension or increase in the floor area or height of a building or structure.

**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.

**APPEAL** means a request for a review of the Floodplain Administrator's interpretation of any provision of this Article.

**AREA OF SHALLOW FLOODING** means a designated Zone AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one 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.

**AREA OF SPECIAL FLOOD HAZARD** see Special Flood Hazard Area (SFHA).

**ARTIFICIAL OBSTRUCTION** means any object or material which is not a natural obstruction, including any which, while not a significant obstruction in itself, is capable of accumulating debris and thereby reducing the flood-carrying capacity of a stream.

**BASE FLOOD** means the flood having a one percent chance of being equaled or exceeded in any given year.

**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 minimum freeboard, establishes the regulatory flood protection elevation (RFPE).

**BASEMENT** means any area of the building having its floor subgrade (below ground level) on all sides.

**BUILDING** see Structure.

**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.

**DESIGN FLOOD** see “Regulatory Flood Protection Elevation.”

**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.

**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.

**DIGITAL FLOOD INSURANCE RATE MAP (DIRFM)** 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.

**DISPOSAL** means, as defined in G.S. 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.

**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.

**ENCROACHMENT** means the advance or infringement of uses, fill, excavation, buildings, structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

**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.

**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) was completed before the initial effective date of the floodplain management regulations adopted by the community.

**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.

**FLOOD BOUNDARY AND FLOODWAY MAP (FBFM)** means an official map of a community, issued by the Federal Emergency Management Agency (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).

**FLOOD HAZARD BOUNDARY MAP (FHBM)** means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the special flood hazard areas have been defined as Zone A.

**FLOOD INSURANCE** means the insurance coverage provided under the National Flood Insurance Program (NFIP).

**FLOOD INSURANCE RATE MAP (FIRM)** means an official map of a community, issued by the Federal Emergency Management Agency, on which both the special flood hazard areas and the risk premium zones applicable to the community are delineated.

**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 Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

**FLOOD-PRONE AREA** see Floodplain.

**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.

**FLOODPLAIN** means any land area susceptible to being inundated by water from any source.

**FLOODPLAIN ADMINISTRATOR** is the individual appointed to administer and enforce the floodplain management regulations.

**FLOODPLAIN DEVELOPMENT PERMIT** means any type of permit that is required in conformance with the provisions of this Article, prior to the commencement of any development activity.

**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.

**FLOODPLAIN MANAGEMENT REGULATIONS** means this Article 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.

**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.

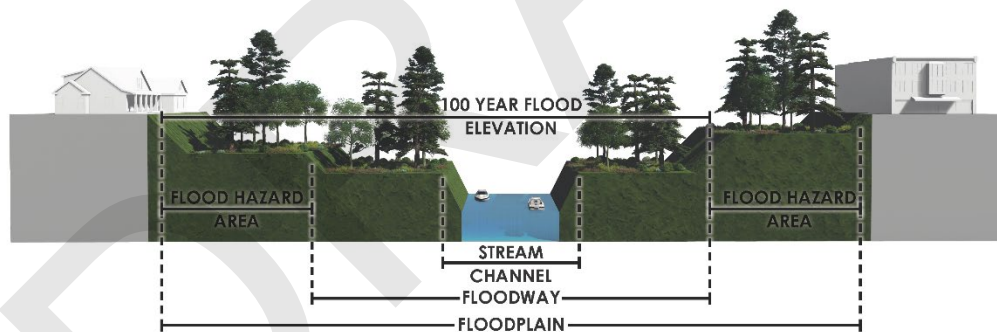
**FLOOD-RESISTANT MATERIAL** means any building product [material, component or system] capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant 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.

**FLOODWAY** means the channel of a river or other watercourse 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 foot.

**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.

**Flood Hazard Area.**



**FREEBOARD** means the height added to the Base Flood Elevation (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 openings, and the hydrological effect of urbanization of the watershed. The Base Flood Elevation (BFE) plus the freeboard establishes the regulatory flood protection elevation (RFPE). The minimum freeboard to be established is one (1) foot.

**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.

**HAZARDOUS WASTE MANAGEMENT FACILITY** means, as defined in G.S. 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

**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.

**HISTORIC STRUCTURE** means any structure that is:

- A. Listed individually in the National Register of Historic Places (a listing maintained by the U.S. 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.
- E. Certified Local Government (CLG) Programs are approved by the U.S. 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.

**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 community'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.

**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, or
- 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.

**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.

**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 Article.

**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".

**MANUFACTURED HOME PARK OR SUBDIVISION** means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

**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 have 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://FLOODNC.GOV/NCFLOOD>) is the map repository.

**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.

**MEAN SEA LEVEL** means, for purposes of this Article, the National Geodetic Vertical Datum (NGVD) as corrected in 1929, the North American Vertical Datum (NAVD) as corrected in 1988, or other vertical control datum used as a reference for establishing varying elevations within the floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.

**NATURAL OBSTRUCTION** means any rock, tree, gravel, or similar natural matter which is an obstruction and has been located within the floodway by a nonhuman cause.

**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.

**NON-ENCROACHMENT AREA (NEA)** means the channel of a river or other watercourse 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 foot as designated in the Flood Insurance Study report.

**ONE HUNDRED YEAR FLOODPLAIN** see Special Flood Hazard Area (SFHA).

**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.

**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.

**PRINCIPALLY ABOVE GROUND** means that at least fifty-one percent (51%) of the actual cash value of the structure is above ground.

**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.

**RECREATIONAL VEHICLE (RV)** means a vehicle, which is:

- A. Built on a single chassis (supporting frame of vehicular structure);
- B. Four hundred (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; and
- D. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

**REFERENCE LEVEL** is the top of the lowest floor for structures within special flood hazard areas designated as Zone A1-A30, AE, A, A99 or AO.

**REGULATORY FLOOD PROTECTION ELEVATION** means the Base Flood Elevation plus the freeboard. In special flood hazard areas where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard. In special flood hazard areas where no BFE has been established, this elevation shall be at least two (2) feet above the highest adjacent grade.

**REMEDY A VIOLATION** means to bring the structure or other development into compliance with State and community 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 ordinance or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.

**RIVERINE** means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

**SALVAGE YARD** means any nonresidential 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.

**SOLID WASTE DISPOSAL FACILITY** means any facility involved in the disposal of solid waste, as defined in G.S. 130A-290(a)(35).

**SOLID WASTE DISPOSAL SITE** means, as defined in G.S. 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

**SPECIAL FLOOD HAZARD AREA (SFHA)** is defined by FEMA as An area having special flood, mudflow or flood-related erosion hazards and shown on a Flood Hazard Boundary Map (FHBM) or a Flood Insurance Rate Map (FIRM) Zone A, AO, A1-A30, AE, A99, AH, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1-A30, V1-V30, VE or V. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. For the purpose of determining Community Rating System (CRS) premium discounts, all AR and A99 zones are treated as non-SFHAs.

**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 one hundred eighty (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.

**STRUCTURE** means a walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

**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 fifty percent (50%) 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 (2) separate occasions during a ten (10) year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds twenty-five percent (25%) of the market value of the structure before the damage occurred.

**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 fifty percent (50%) 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 community 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.

**TEMPERATURE CONTROL** means having the temperature regulated by a heating and/or cooling system, built-in or appliance.

**VARIANCE** is a grant of relief from the requirements of this Article.

**VIOLATION** means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in *Section C.2-2 Administration* and *Section C.2-3 Provisions for Flood Hazard Reduction* is presumed to be in violation until such time as that documentation is provided.

**WATER SURFACE ELEVATION (WSE)** means the height, in relation to mean sea level, of floods of various magnitudes and frequencies in the floodplains of riverine areas.

**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.

### **2-1.6. LANDS TO WHICH THIS ARTICLE APPLIES**

This Article shall apply to all special flood hazard areas within the Town of Lewisville, including any Extra-Territorial Jurisdiction (ETJs), of the Town.

### **2-1.7. BASIS FOR ESTABLISHING THE SPECIAL FLOOD HAZARD 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 Flood Insurance Study (FIS) and its accompanying Flood Insurance Rate Maps (FIRM), for Forsyth County dated January 2, 2009, or latest, as may be amended.

### **2-1.8. ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT**

A floodplain development permit shall be required in conformance with the provisions of this Article prior to the commencement of any development activities within special flood hazard areas determined in accordance with the provisions of *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas* of this Article.

### **2-1.9. 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 Article and other applicable regulations.

### **2-1.10. ABROGATION AND GREATER RESTRICTIONS**

This Article is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Article and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

### **2-1.11. INTERPRETATION**

In the interpretation and application of this Article, all provisions shall be:

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

### **2-1.12. WARNING AND DISCLAIMER OF LIABILITY**

The degree of flood protection required by this Article 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 Article 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 Article shall not create liability on the part of the Town of Lewisville or by any officer or employee thereof for any flood damages that result from reliance on this Article, or any administrative decision lawfully made hereunder.

## **2-2. ADMINISTRATION**

### **2-2.1. DESIGNATION OF FLOODPLAIN ADMINISTRATOR**

- A. The Lewisville Planning Director or designee, hereinafter referred to as the "Floodplain Administrator", is hereby appointed to administer and implement the provisions of this Article.
- B. The Floodplain Administrator shall coordinate with the Winston-Salem/Forsyth County Erosion Control Division, Ready Forsyth, the Army Corps of Engineers and any other local, State, or federal officials involved in the administration of this Ordinance.

### **2-2.2. FLOODPLAIN DEVELOPMENT APPLICATION, PERMIT AND CERTIFICATION REQUIREMENTS**

- A. **Application Requirements.** Application for a floodplain development permit shall be made to the Floodplain Administrator prior to any development activities located within special flood hazard areas. The following items shall be presented to the Floodplain Administrator to apply for a floodplain development permit:
  - 1. A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:
    - (1) 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;



- (2) The boundary of the special flood hazard area as delineated on the FIRM or other flood map as determined in *Section C.2-1.7 Basis For Establishing the Special Flood Hazard Areas*, or a statement that the entire lot is within the special flood hazard area;
  - (3) Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*;
  - (4) The boundary of the floodway(s) or non-encroachment area(s) as determined in *Section C.2-1.7 Basis For Establishing the Special Flood Hazard Areas*;
  - (5) The Base Flood Elevation (BFE) where provided as set forth in *Section C.2-1.7 Basis For Establishing the Special Flood Hazard Areas*, *Section C.2-2.3 Duties and Responsibilities of the Floodplain Administrator*, or *Section C.2-3.4 Standards for Floodplains Without Established Base Flood Elevations*;
  - (6) The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and
2. Proposed elevation, and method thereof, of all development within a special flood hazard area including but not limited to:
  - (1) Elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;
  - (2) Elevation in relation to mean sea level to which any nonresidential structure in Zone AE, A or AO will be floodproofed; and
  - (3) Elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed.
3. If floodproofing, a Floodproofing Certificate (FEMA Form 81-65) 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.
4. A foundation plan, drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this Article are met. These details include but are not limited to:



- (1) 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
  - (2) Openings to facilitate automatic equalization of hydrostatic flood forces on walls in accordance with *Section C.2-3.2(D) Elevated Buildings* when solid foundation perimeter walls are used in Zones A, AO, AE, and A1-30.
5. Usage details of any enclosed areas below the lowest floor.
  6. 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.
  7. Certification that all other local, State and federal permits required prior to floodplain development permit issuance have been received.
  8. Documentation for placement of recreational vehicles and/or temporary structures, when applicable, to ensure that the provisions of *Section C.2-3.2(F) Recreational Vehicles* and *Section C.2-3.2(G) Temporary Nonresidential Structures*.
  9. 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.
- B. **Permit Requirements.** The floodplain development permit shall include, but not be limited to:
1. A description of the development to be permitted under the floodplain development permit.
  2. The special flood hazard area determination for the proposed development in accordance with available data specified in *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*.
  3. The regulatory flood protection elevation required for the reference level and all attendant utilities.
  4. The regulatory flood protection elevation required for the protection of all public utilities.

5. All certification submittal requirements with timelines.
6. A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, as applicable.
7. The flood openings requirements, if in Zones A, AO, AE or A1-30.
8. Limitations of below BFE enclosure uses (if applicable). (i.e., parking, building access and limited storage only).
9. A statement, that all materials are BFE/RFPE must be flood resistant materials.

**C. Certification Requirements.**

**1. Elevation Certificates.**

- (1) An Elevation Certificate (FEMA Form 81-31) is required after the reference level is established. Within twenty-one (21) calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to mean sea level. Any work done within the twenty-one (21) day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator 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 caused to issue a stop-work order for the project.
- (2) A final as-built Elevation Certificate (FEMA Form 81-31) 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 Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Floodplain Administrator 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.

2. **Floodproofing Certificate.** If nonresidential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 81-65), 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 Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to mean sea level. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator 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.
3. If a manufactured home is placed within Zone A, AO, AE, or A1-30 and the elevation of the chassis is more than thirty-six (36) inches in height above grade, an engineered foundation certification is required in accordance with the provisions of *Section C.2-3.2(C) Manufactured Homes*.
4. 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.
5. **Certification Exemptions.** The following structures, if located within Zone A, AO, AE or A1-30, are exempt from the elevation/floodproofing certification requirements specified in items (1) and (2) of this subsection:
  - (1) Recreational vehicles meeting requirements of *Section C.2-3.2(F) Recreational Vehicles*.
  - (2) Temporary structures meeting requirements of *Section C.2-3.2(G) Temporary Nonresidential Structures*; and

- (3) Accessory structures less than one hundred fifty (150) square feet meeting requirements of *Section C.2-3.2(H) Accessory Structures*.

### **2-2.3. DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR**

The Floodplain Administrator shall perform, but not be limited to, the following duties:

- A. Review all floodplain development applications and issue permits for all proposed development within special flood hazard areas to assure that the requirements of this Article have been satisfied.
- B. Review all proposed development within special flood hazard areas to assure that all necessary local, State and federal permits have been received.
- C. Notify adjacent communities and the North Carolina Department of Crime Control and 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).
- D. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.
- E. Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of *Section C.2-3.6 Floodways and Non-Encroachment Areas* are met.
- F. Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) and all attendant utilities of all new and substantially improved structures, in accordance with the provisions of *Section C.2-2.2(C) Certification Requirements*.
- G. Obtain actual elevation (in relation to mean sea level) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with the provisions of *Section C.2-2.2(C) Certification Requirements*.
- H. Obtain actual elevation (in relation to mean sea level) of all public utilities in accordance with the provisions of *Section C.2-2.2(C) Certification Requirements*.
- I. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with the provisions of

*Section C.2-2.2(C) Certification Requirements and Section C.2-3.2(B) Nonresidential Construction.*

- J. 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 Article.
- K. When Base Flood Elevation (BFE) data has not been provided in accordance with the provisions of *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*, obtain, review, and reasonably utilize any BFE data, along with floodway data or non-encroachment area data available from a federal, State, or other source, including data developed pursuant to *Section C.2-3.6 Floodways and Non-Encroachment Areas*, in order to administer the provisions of this Article.
- L. When Base Flood Elevation (BFE) data is provided but no floodway or non-encroachment area data has been provided in accordance with the provisions of *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*, 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 Article.
- M. 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 Base Flood Elevation (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.
- N. Permanently maintain all records that pertain to the administration of this Article and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.
- O. Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the Floodplain Administrator 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 ordinance and the terms of the permit. In

exercising this power, the Floodplain Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

- P. Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this Article, the Floodplain Administrator 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.
- Q. Revoke floodplain development permits as required. The Floodplain Administrator 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.
- R. Make periodic inspections throughout the special flood hazard areas within the jurisdiction of the community. The Floodplain Administrator and each member of his or her inspections department 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.
- S. Follow through with corrective procedures of *Section C.2-2.5 Corrective Procedures*.
- T. Review, provide input, and make recommendations for variance requests.
- U. Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted in accordance with the provisions of *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas* of this Article, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.
- V. Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-Fs) and Letters of Map Revision (LOMRs).

### **2-2.4. PENALTIES FOR VIOLATION**

#### **A. Violations.**

1. 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 Class 1 misdemeanor. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Lewisville from taking such other lawful action as is necessary to prevent or remedy any violation.

The following penalties may be imposed:

#### **B. Penalties.**

1. **Stop Work Order.** The Floodplain Administrator, or designee, may order work on any site within a Special Flood Hazard Area to be immediately stopped whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance. The stop work order shall be in writing and directed to the person doing the work. The stop work order shall state the specific work to be stopped, the specific reasons for the stoppage, and the conditions under which the work may be resumed. Violation of a stop work order shall constitute a misdemeanor.
2. **Revocation of Permits.** The Floodplain Administrator, or designee, may revoke and require the return of a permit by notifying the permit holder in writing stating the reason for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or 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 permit mistakenly issued in violation of an applicable State or local law may also be revoked.

### **2-2.5. CORRECTIVE PROCEDURES**

- A. **Violations to Be Corrected.** When the Floodplain Administrator finds violations of applicable State and local laws, it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.



- B. 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 Floodplain Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:
1. That the building or property is in violation of the floodplain management regulations;
  2. That a hearing will be held before the Floodplain Administrator 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
  3. That following the hearing, the Floodplain Administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.
- C. Order to Take Corrective Action.** If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she 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 one hundred eighty (180) calendar days. Where the Floodplain Administrator 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.
- D. Appeal.** Any party with standing who has received an order to take corrective action may appeal the order to the Zoning Board of Adjustment by giving notice of appeal in writing to the Planning Director within ten (10) days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator shall be final. The Zoning Board of Adjustment shall hear an appeal within the time frame indicated in the annual calendar of meetings, and subject to any required periods of public notice, if applicable.
- E. 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 following an appeal, the owner shall be guilty of a misdemeanor and shall be punished at the discretion of the court.



### **2-2.6. VARIANCE PROCEDURES**

- A. The Lewisville Zoning Board of Adjustment as established by the Town of Lewisville, hereinafter referred to as the "appeal board", shall hear and decide requests for variances from the requirements of this Article.
- B. Any person aggrieved by the decision of the appeal board may appeal such decision to the court, as provided in G.S. Ch. 7A.
- C. Variances may be issued for:
  - 1. 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;
  - 2. Functionally dependent facilities if determined to meet the definition as stated in *Section C.2-1.5 Definitions*, provided provisions of *Section C.2-2.6(1)(2-3) and (5) Conditions of Variance* 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
  - 3. Any other type of development, provided it meets the requirements of this Section.
- D. In passing upon variances, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this Article, and:
  - 1. The danger that materials may be swept onto other lands to the injury of others;
  - 2. The danger to life and property due to flooding or erosion damage;
  - 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - 4. The importance of the services provided by the proposed facility to the community;
  - 5. The necessity to the facility of a waterfront location as defined under *Section C.2-1.5 Definitions* of this Article as a functionally dependent facility, where applicable;
  - 6. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
  - 7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
  9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
  10. 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
  11. 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.
- E. A written report addressing each of the above factors shall be submitted with the application for a variance.
- F. Upon consideration of the factors listed above and the purposes of this Article, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes and objectives of this Article.
- G. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (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 will 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.
- H. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.
- I. Conditions for Variances.
1. Variances shall not be issued when the variance will make the structure in violation of other federal, State, or local laws, regulations, or ordinances.
  2. 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.

3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  4. Variances shall only be issued prior to development permit approval.
  5. Variances shall only be issued upon:
    - (1) A showing of good and sufficient cause;
    - (2) A determination that failure to grant the variance would result in exceptional hardship; and
    - (3) 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 ordinances.
- J. 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:
1. The use serves a critical need in the community.
  2. No feasible location exists for the use outside the special flood hazard area.
  3. The reference level of any structure is elevated or floodproofed to at least the regulatory flood protection elevation.
  4. The use complies with all other applicable federal, State and local laws.
  5. The Town of Lewisville has notified the Secretary of the North Carolina Department of Crime Control and Public Safety of its intention to grant a variance at least thirty (30) calendar days prior to granting the variance.

## **2-3. PROVISIONS FOR FLOOD HAZARD REDUCTION**

### **2-3.1. GENERAL STANDARDS**

In all special flood hazard areas the following provisions are required:

- A. All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.

- B. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- C. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.
- D. All new electrical, heating, ventilation, air-conditioning, plumbing, duct systems, and other building utility systems, equipment, and service facilities must be located at or above the Regulatory Flood Protection Elevation (RFPE) and/or specially designed to prevent water from entering or accumulating within the components and installed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation. Utility systems, equipment, and service facilities include, but are not limited to, HVAC equipment, water softener units, bath/kitchen plumbing fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, water heaters, fuel tanks, and electric outlets/switches.
  - 1. Replacements part of a substantial improvement must also meet the above provisions.
  - 2. 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 comply with the standards for new construction consistent with the code and requirements for the original structure.
- E. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- F. 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 floodwaters.
- G. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- H. Any alteration, repair, reconstruction, or improvements to a structure, which is in compliance with the provisions of this Article, shall meet the requirements of "new construction" as contained in this Article.

- I. Nothing in this Article shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this Article [January 2, 2009] 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 Article.
- J. 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 *Section C.2-2.6 Variance Procedures*. 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 *Section C.2-2.2(C) Certification Requirements*.
- K. All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.
- L. 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.
- M. All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- N. 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.
- O. 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.
- P. When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest Base Flood Elevation (BFE) shall apply.

### **2-3.2. SPECIFIC STANDARDS**

In all special flood hazard areas where Base Flood Elevation (BFE) data has been provided, as set forth in *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*, or *Section C.2-3.4 Standards for Floodplains Without Established Base Flood Elevations*, the following provisions, in addition to the provisions of *Section C.2-3.1 General Standards*, are required:

- A. **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 *Section C.2-1.5 Definitions* of this Article.
- B. **Nonresidential Construction.** New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in *Section C.2-1.5 Definitions* of this Article. Structures located in A, AE, AO, and A1-30 Zones 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 *Section C.2-3.6 Floodways and Non-Encroachment Areas*. A registered professional engineer or architect shall certify that the floodproofing standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in *Section C.2-2.2(C) Certification Requirements*, along with the operational plan and the inspection and maintenance plan.
- C. **Manufactured Homes.**
  - 1. 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 *Section C.2-1.5 Definitions* of this Article.
  - 2. 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 G.S. 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.

3. All enclosures or skirting below the lowest floor shall meet the requirements of *Section C.2-3.2(D) Elevated Buildings*.
4. 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 Floodplain Administrator and the local Emergency Management Coordinator.

D. **Elevated Buildings.** Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

1. 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;
2. Shall be constructed entirely of flood resistant materials at least to the regulatory flood protection elevation; and
3. Shall include, in Zones A, AO, AE, and A1-30, 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:
  - (1) A minimum of two (2) flood openings on different sides of each enclosed area subject to flooding;



- (2) The total net area of all flood openings must be at least one square inch for each square foot of enclosed area subject to flooding;
- (3) If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;
- (4) The bottom of all required flood openings shall be no higher than one foot above the adjacent grade;
- (5) 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
- (6) 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. Additions/Improvements.**

1. 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:
  - (1) Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more nonconforming than the existing structure.
  - (2) A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
2. Additions to post-FIRM structures with no modifications 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.
3. 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:
  - (1) Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.



- (2) A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
  4. Any combination of repair, reconstruction, rehabilitation, addition or improvement of a building or structure taking place during ten (10) 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 ten (10) year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of this ordinance. *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. (The repetitive loss portion is in italics is OPTIONAL, but will be required for flood insurance policy holders to be eligible for Increased Cost of Compliance (ICC) benefits for repetitive losses.)* 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:
    - (1) 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.
    - (2) Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.
- F. **Recreational Vehicles.** Recreational vehicles shall either:
1. Be on site for fewer than one hundred eighty (180) consecutive days and 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); or
  2. Meet all the requirements for new construction.
- G. **Temporary Nonresidential Structures.** Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the Floodplain Administrator 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 Floodplain Administrator for review and written approval:

1. A specified time period for which the temporary use will be permitted. Time specified may not exceed three (3) months, renewable up to one year;
2. The name, address, and phone number of the individual responsible for the removal of the temporary structure;
3. The time frame prior to the event at which a structure will be removed (i.e., minimum of seventy-two (72) hours before landfall of a hurricane or immediately upon flood warning notification);
4. A copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and
5. Designation, accompanied by documentation, of a location outside the special flood hazard area, to which the temporary structure will be moved.

H. **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:

1. Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
2. Accessory structures shall not be temperature-controlled;
3. Accessory structures shall be designed to have low flood damage potential;
4. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
5. Accessory structures shall be firmly anchored in accordance with the provisions of *Section C.2-3.1 General Standards*.
6. All service facilities such as electrical shall be installed in accordance with the provisions of *Section C.2-3.1 General Standards*.
7. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with the provisions of *Section C.2-3.2(D) Elevated Buildings*.

8. An accessory structure with a footprint less than one hundred fifty (150) square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures in accordance with *Section C.2-2.2(C) Certification Requirements*.
- I. **Tanks.** When gas and liquid storage tanks are to be placed within a Special Flood Hazard Area, the following criteria shall be met:
  1. **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.
  2. **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.
  3. **Above-ground tanks, not elevated.** Above-ground tanks that do not meet the elevation requirements of *Section C.2-3.2(B) Nonresidential Construction* of this ordinance 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.
  4. **Tank inlets and vents.** Tank inlets, fill openings, outlets and vents shall be:
    - (1) 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
    - (2) Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.

## 5. Other Development.

- (1) Fences in regulated floodways and NEAs that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of *Section C.2-3.6 Floodways and Non-Encroachment Areas* of this ordinance.
- (2) 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 *Section C.2-3.6 Floodways and Non-Encroachment Areas* of this ordinance.
- (3) 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 *Section C.2-3.6 Floodways and Non-Encroachment Areas* of this ordinance.
- (4) Commercial storage facilities are not considered “limited storage” as noted in this ordinance, and shall be protected to the Regulatory Flood Protection Elevation as required for commercial structures.

### 2-3.3. RESERVED

### 2-3.4. STANDARDS FOR FLOODPLAINS WITHOUT ESTABLISHED BASE FLOOD ELEVATIONS

Within the special flood hazard areas designated as Approximate Zone A and established in *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to the provisions of *Section C.2-3.1 General Standards*, shall apply:

- A. 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 (5) 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.

B. The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:

1. When Base Flood Elevation (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 Article and shall be elevated or floodproofed in accordance with standards in *Sections C.2-3.1 General Standards* and *Section C.2-3.2 Specific Standards*.
2. 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 *Section C.2-3.2 Specific Standards* and *Section C.2-3.6 Floodways and Non-Encroachment Areas*.
3. All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five (5) acres or has more than fifty (50) lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference in accordance with *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas* and utilized in implementing this Article.
4. When Base Flood Elevation (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 *Section C.2-1.5 Definitions*. All other applicable provisions of *Section C.2-3.2 Specific Standards* shall also apply.

### **2-3.5. STANDARDS FOR RIVERINE FLOODPLAINS WITH BASE FLOOD ELEVATIONS BUT WITHOUT ESTABLISHED FLOODWAYS OR NON-ENCROACHMENT AREAS**

Along rivers and streams where Base Flood Elevation (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:

- A. Standards of *Section C.2-3.1 General Standards* and *Section C.2-3.2 Specific Standards*; and
- B. 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 foot at any point within the community.

### **2-3.6. FLOODWAYS AND NON-ENCROACHMENT AREAS**

Areas designated as floodways or non-encroachment areas are located within the special flood hazard areas established in *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*. 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 *Section C.2-3.1 General Standards* and *Section C.2-3.2 Specific Standards*, shall apply to all development within such areas:

- A. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:
  - 1. It is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of floodplain development permit, or
  - 2. A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.
- B. If *Section C.2-3.6 Floodways and Non-Encroachment Areas* is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this Article.

- C. No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:
1. The anchoring and the elevation standards of *Section C.2-3.2(C) Manufactured Homes*; and
  2. The no encroachment standard of *Section C.2-3.6(A) Floodways and Non-Encroachment Areas*.

### **2-3.7. STANDARDS FOR AREAS OF SHALLOW FLOODING (ZONE AO)**

Located within the special flood hazard areas established in *Section C.2-1.7 Basis for Establishing the Special Flood Hazard Areas*, 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 *Section C.2-3.1 General Standards* and *Section C.2-3.2 Specific Standards*, all new construction and substantial improvements shall meet the following requirements:

- A. 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 four (4) feet, above the highest adjacent grade; or at least four (4) feet above the highest adjacent grade if no depth number is specified.
- B. Nonresidential structures may, in lieu of elevation, be floodproofed to the same level as required in *Section C.2-3.7 Standards for Areas of Shallow Flooding (Zone AO)* 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 *Section C.2-2.2(C) Certification Requirements* and *Section C.2-3.2(B) Nonresidential Construction*.
- C. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.



## 3. STORMWATER MANAGEMENT AND WATERSHED PROTECTION

### 3-1 AUTHORITY AND GENERAL PROVISIONS

#### 3-1.1. SHORT TITLE

This Ordinance shall be known and may be cited as the *Stormwater Management and Watershed Protection Ordinance*, except as referred to herein, where it shall be known as *this Ordinance*.

#### 3-1.2. PURPOSE

- A. This Ordinance promotes the health, safety, and general welfare of the residents of Lewisville and general public, according to the following objectives:
1. Protecting public drinking water supply watersheds, including the quality of drinking water for the Town of Lewisville.

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2. Minimizing damage to public property, private property, and infrastructure that may result from construction and post-construction stormwater runoff.
3. Preserving and protecting water resources, aquatic life and the ecosystems to which fresh water is vital.
4. Establishing minimum requirements and procedures to control the adverse effects of illicit discharges into the municipal stormwater system, increased stormwater runoff from new development, and non-point source pollution associated with new development and redevelopment.
5. Furthering the goals and objectives of the *Louisville Tomorrow Comprehensive Plan*, related land use plans, development guides, and the *Lewisville Transportation Plan*.

### **3-1.3. EFFECTIVE DATE**

- A. The effective date of this Ordinance shall be the date of its adoption by the Town Council.

### **3-1.4. JURISDICTION AND APPLICABILITY**

- A. This Ordinance is applicable to all property located within the territorial jurisdiction of the Town of Lewisville, as designated on the map titled the *Lewisville Stormwater Map*. Additionally, this Ordinance shall apply to those areas within the Town of Lewisville located within Public Drinking Water Supply Watersheds as designated and classified by the North Carolina Environmental Management Commission. These areas shall be defined and established on the map entitled, the *Watershed Protection Map of Lewisville, North Carolina*, herein after referred to as the *Watershed Map*. The *Lewisville Stormwater Map* and the *Watershed Map*, and all explanatory matter set out thereon, is hereby made a part of this Ordinance.
- B. These maps may be updated on an ongoing basis to account for changing circumstances, changes in the land area covered by this Ordinance, and the geographic location of all *structural stormwater control measures (SCMs)* permitted under this Ordinance. This *Lewisville Stormwater Map* and the *Watershed Map* shall be permanently kept on file in the office of the Planning Director in electronic form, paper form or both.

- C. In the event of a conflict within this Ordinance, the applicability to a particular area of land or SCM shall be determined by reference to the North Carolina General Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

### **3-1.5. AUTHORITY**

In G.S. 160D and in G.S. 143, Article 21, the Legislature of the State of North Carolina has directed local governments to adopt regulations protecting the public health, safety and welfare of their citizens. Additionally, The North Carolina Department of Environmental Quality (NCDEQ) has directed specified entities to adopt Post-Construction Runoff Controls to satisfy requirements of the Environmental Protection Agency's Phase II National Pollutant Discharge Elimination System (NPDES) stormwater regulatory program. The Town Council does hereby adopt into law the following articles as the Phase II Stormwater Management and Watershed Protection Ordinance.

### **3-1.6. COMPLIANCE WITH PROVISIONS**

For provisions, restrictions, and procedures outlined herein, refer to *Section B.1-5 Compliance*.

### **3-1.7. EXEMPTIONS TO APPLICABILITY**

- A. Development and redevelopment that cumulatively disturbs less than twenty thousand (20,000) square feet and is not part of a common plan of development or sale is exempt from the provisions of this Ordinance.
- B. Development or redevelopment that cumulatively disturbs less than twenty thousand (20,000) square feet, is not exempt if such activities are part of a common plan of development or sale, even though multiple, separate or distinct activities take place at different times on different schedules.
- C. Single Family Residential construction on a single lot that disturbs less than one acre and is not part of a larger common plan of development or sale is exempt from *Section C.3-7 Development Standards* and *Section C.3-8 Stormwater Management Plan*.
- D. Activities exempt from permit requirements of Section 404 of the Clean Water Act, as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this Ordinance.

- E. Existing development as well as expansions to individual single-family homes or manufactured homes existing prior to January 1, 2008, are not subject to the requirements of this Ordinance. All other expansions to structures and other built-upon areas classified as existing development must meet the requirements of this Ordinance. The built-upon area of the existing development is not required to be included in the additional built-upon area calculations for any proposed *structural SCMs*.
- F. In cases of two (2) or more principal uses on the same zoning lot, the regulation requiring the more restrictive regulations shall apply to the entire lot.

### **3-1.8. SEVERABILITY**

See *Section B.1-6 Severability*.

### **3-1.9. CONFLICTING PROVISIONS**

See *Section B.1-7 Conflicting Provisions*.

### **3-1.10. DEFINITIONS**

- A. **General.** Unless otherwise expressly stated, or unless the context clearly indicates a different meaning, the words and phrases in the following list of definitions shall, for the purposes of this Ordinance, have the meanings indicated. All words and phrases not defined in this Ordinance shall have their common meaning. The definitions listed herein are in addition to the definitions of *Section A.2 Definitions*. In the event of conflict with *Section A.2 Definitions*, the definitions below shall prevail.
- B. **List.**
1. **Best Management Practices (BMP).** A structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals. This term is often synonymous with Stormwater Control Measure (SCM).
  2. **Buildable Area Envelope.** The area on a site or lot that can have built upon area. For calculation of built upon area percentages, the entire area of the designated buildable area envelope shall be considered built upon area.

3. **Building.** Any structure having a roof supported by columns or by walls, and intended for shelter, housing or enclosure of persons, animals, or property. The connection of two buildings by means of an open porch, breezeway, passageway, carport, or other such open structure, with or without a roof, shall not be deemed to make them one building.
4. **Built-Upon Area.** Built-upon area means impervious surface and partially impervious surface to the extent that the partially impervious surface does not allow water to infiltrate through the surface and into the subsoil. "Built-upon area" does not include a slatted deck; the water area of a swimming pool; a surface of number 57 stone, as designated by the American Society for Testing and Materials, laid at least four inches thick over a geotextile fabric; a trail as defined in G.S. 113A-85 that is either unpaved or paved as long as the pavement is porous with a hydraulic conductivity greater than 0.001 centimeters per second (1.41 inches per hour); or landscaping material, including, but not limited to, gravel, mulch, sand, and vegetation, placed on areas that receive pedestrian or bicycle traffic or on portions of driveways and parking areas that will not be compacted by the weight of a vehicle, such as the area between sections of pavement that support the weight of a vehicle (except as exempted by State law).
5. **Cluster Development.** Cluster development means the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project including minimizing stormwater runoff impacts. This term includes nonresidential development as well as single-family residential and multi-family developments. For the purpose of this ordinance, planned unit developments and mixed-use development are considered as cluster development.
6. **Common Plan of Development.** Any area where multiple, separate and distinct construction or land disturbing activities will occur under one plan, including any area or site with multiple lots or phases where there is a single development plan for one or more zoning lots. This plan may also include, but is not limited to a site plan, land survey, notice of public hearing, permit application, zoning request or computer design. Construction indications may include boundary signs, lot stakes, survey markings or any other indication that construction may be planned or occurring on one or more zoning lots.



7. **Composting Facility.** A facility in which only stumps, limbs, leaves, grass, and untreated wood collected from land clearing or landscaping operations is deposited.
8. **Critical Area.** The area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed. The critical area is defined as extending either one-half mile from the normal pool elevation of the reservoir in which the intake is located or to the ridge line of the watershed (whichever comes first); or one-half mile upstream from the intake located directly in the stream or river (run-of-the-river), or the ridge line of the watershed (whichever comes first). Local governments may extend the critical area as needed. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the critical area if these landmarks are immediately adjacent to the appropriate outer boundary of one-half mile.
9. **Design Manual.** The NCDEQ Stormwater Design Manual, which went into effect on January 1, 2017, is used for the proper implementation of the requirements of the state's stormwater program. All references herein to the Design Manual are to the latest published edition or revision.
10. **Development.** Any land disturbing activity which adds to or changes the amount or nature of impervious or partially impervious cover on a land area, or which otherwise decreases the infiltration of precipitation into the soil.
11. **Dwelling Unit.** One (1) or more rooms used as a place of residence for one or more persons, in which there are independent living facilities, including permanent provisions for living, sleeping, eating, cooking, and sanitation.
12. **Ephemeral Stream.** A stream that has flowing water only during and for a short time after a rain event. Groundwater is not a source for ephemeral streams.
13. **Existing Development.** Those projects that are built, have received preliminary or final approval, or that have established a vested right under North Carolina zoning law as of the effective date of this ordinance.
14. **Existing Lot.** A zoning lot or parcel of land which existed legally before the adoption date of this Ordinance.
15. **Expansion.** Any change or alteration to existing structures or other built-upon areas which decreases the infiltration of precipitation into the soil, including but not limited

to, adding to or changing the amount of impervious or partially impervious cover on a land area.

16. **Hazardous Material.** Any substance listed as such in Superfund Amendments and Reauthorization Act (SARA) Section 302, Extremely Hazardous Substances; Comprehensive Environmental Responsibility and Cleanup Liability Act (CERCLA) Hazardous Substances; or Section 311 of Clean Water Act (oil and hazardous substances).
17. **High-Density Project.** Any project that exceeds the low-density threshold for dwelling units per acre or built-upon area.
18. **Impervious Cover.** Any material which significantly reduces or prevents natural absorption of stormwater into the soil.
19. **Industrial Development.** Any non-residential development that requires an NPDES permit for an industrial discharge and/or requires the use or storage of any hazardous material for the purpose of manufacturing, assembling, finishing, cleaning, or developing any product or commodity. (My instincts tell me to keep this definition.
20. **Intermittent Stream.** A stream with a well-defined channel that usually flows during certain times of the year, during wetter conditions and when groundwater levels are higher.
21. **Low-Density Project.** A project that does not exceed the maximum allowable project intensity permitted in *Section C.3-3.3(C) Low-Density Projects*.
22. **Nonresidential Development.** All development other than residential development, agriculture and silviculture.
23. **Owner.** The legal or beneficial possessor of real property, 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.
24. **Perennial Stream.** A stream that has flowing water year-round, except during prolonged or severe droughts.
25. **Protected Area.** The area adjoining and upstream of the critical area of WS-IV watersheds. The boundaries of the protected area are defined as within five miles



of and draining to the normal pool elevation of the reservoir or to the ridgeline of the watershed; or within 10 miles upstream and draining to the intake located directly in the stream or river or to the ridgeline of the watershed.

26. **Residential Development.** Buildings constructed for human habitation such as attached and detached single-family dwellings, apartment complexes, condominiums, townhouses, cottages, etc. and their associated outbuildings such as garages, storage buildings, gazebos, etc. and customary home occupations.
27. **Residuals.** Any solid or semi-solid waste generated from a wastewater treatment plant, water treatment plant or air pollution control facility permitted under the authority of the Environmental Management Commission.
28. **Riparian Buffer (Stream Buffer).** An area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer is measured landward from the normal pool elevation of impounded structures and from the bank of each side of streams or rivers.
29. **Single Family Residential on a Single Lot.** A parcel of land occupied or capable of being occupied by no more than one principal building containing no more than one principal dwelling and one accessory building containing no more than one accessory residence.
30. **Stormwater Administrator.** The Public Works Director and designees, or other designated entity of the Town of Lewisville responsible for administration and enforcement of this Ordinance.
31. **Stormwater Conveyance.** Private and public drainage facilities by which stormwater may be conveyed to waters of the United States, including but not limited to, streets, roads, catch basins, natural and artificial channels, natural and artificial drainage features, stream beds, gullies, curbs, gutters, ditches, and storm drains.
32. **Stormwater Control Measure (SCM).** Permanent devices designed, constructed, and maintained to remove pollutants from the stormwater runoff before water reaches streams and drinking water supply reservoirs.
33. **Subdivider.** Any person, firm, corporation, or official who subdivides or develops any land deemed to be a subdivision as herein defined.

34. **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 on a continuous basis and not discontinued for more than thirty (30) days; 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.
35. **Surface Water.** All waters of the State as defined in NCGS 143-212 except underground waters.
36. **Variance.** An action by the Watershed Review Board to relax or waive a water supply watershed management requirement that is established by this Ordinance, given in conjunction with permission to develop or use property.
37. **Variance, Major.** A variance relaxing or waiving a water supply watershed management requirement adopted by the Environmental Management Commission that results in any one or more of the following:
- (1) The complete waiver of a management requirement; or
  - (2) The relaxation, by a factor of more than ten percent (10%), of any management requirement that takes the form of a numerical standard.
1. **Variance, Minor.** A variance from the minimum statewide watershed protection rules that results in a relaxation, by a factor of up to five (5) percent of any buffer, density or built-upon area requirement under the high-density option; or that results in a relaxation, by a factor of up to ten (10) percent, of any management requirement under the low-density option. For variances to a vegetated setback requirement, the percent variation shall be calculated using the footprint of built-upon area proposed to encroach with the vegetated setback divided by the total area of vegetated setback within the project.
2. **Vested Right.** The right to undertake and complete the development and use of property under the terms and conditions of an approved site-specific development plan or an approved phased development plan. Refer to the North Carolina General Statutes Section 160D-108 for more information.

3. **Water Dependent Structure.** Any structure for which the use requires access to or proximity to or citing within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks, and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.
4. **Watershed.** The entire land area contributing surface drainage to a specific point (e.g. the water supply intake) or alternatively, the geographic region within which water drains to a particular river, stream or body of water.
5. **Watershed Administrator.** The Planning Director and designees, or other designated person for the Town of Lewisville responsible for administration and enforcement of this Ordinance.
6. **Watershed Review Board.** The Watershed Review Board will carry out the same duties and have the same powers as the Zoning Board of Adjustment when assigned quasi-judicial decisions under the Section A.3 Review and Decision-Making Bodies

### **3-1.11. CUMULATIVE REQUIREMENTS**

The requirements of this Ordinance are cumulative.

## **3-2. ADMINISTRATION, PERMITS AND APPEALS**

### **3-2.1. WATERSHED ADMINISTRATOR AND DUTIES THEREOF**

- A. The Town of Lewisville appoints the Planning Director as the Watershed Administrator. It shall be the duty of the Watershed Administrator to administer and enforce the provisions of this ordinance as follows:
  1. The Watershed Administrator shall serve as clerk to the Watershed Review Board.
  2. The Watershed Administrator is granted the authority to administer and enforce the provisions of this Ordinance. The Watershed Administrator and designees, may enter any building, structure, or premises, as provided by law, to perform any duties described in this Ordinance.
  3. The Watershed Administrator shall keep records of all amendments to the local Water Supply Watershed Protection Ordinance and shall provide copies of all

amendments upon adoption to the Stormwater Branch of the Division of Energy, Mineral, and Land Resources.

4. The Watershed Administrator is authorized to approve the use of density averaging. The Administrator shall keep records of the jurisdiction's use of the provision that a maximum of ten percent (10%) of the non-critical area of WS-II, WS-III, and, WS-IV watersheds may be developed with new development at a maximum of seventy percent (70%) built-upon surface area. Records for each watershed shall include the total acres of non-critical watershed area, total acres eligible to be developed under this option, total acres approved for this development option, and individual records for each project with the following information: location, number of developed acres, type of land use and stormwater management plan (if applicable).

The Watershed Administrator shall keep a record of variances to the local Water Supply Watershed Protection Ordinance.

### **3-2.2. STORMWATER ADMINISTRATOR**

A. **Enforcement Authority.** The Stormwater Administrator, as identified in *Section C.3-1.10 Definitions*, is granted the authority to administer and enforce the provisions of this Ordinance. The Stormwater Administrator and designees may enter any building, structure, or premises, as provided by law, to perform any duties described in this Ordinance.

1. **Powers and Duties.** In addition to the powers and duties that may be conferred by other provisions of the Town of Lewisville's Unified Development Ordinance and other laws, the Stormwater Administrator shall have the following powers and duties under this Ordinance:
  - (1) To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this Ordinance.
  - (2) To make determinations and render interpretations of this Ordinance.
  - (3) To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the Town Council of the Town of Lewisville on applications for development or redevelopment approvals.

- (4) To enforce the provisions of this Ordinance in accordance with its enforcement provisions.
  - (5) To maintain records, maps, and official materials as relate to the adoption, amendment, enforcement, or administration of this Ordinance.
  - (6) To provide expertise and technical assistance to the Town Council of the Town of Lewisville and its Stormwater Advisory Committee, upon request.
  - (7) To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
  - (8) To take any other action necessary to administer the provisions of this Ordinance.
- B. **Issue Permits.** The Stormwater Administrator shall issue Stormwater Management permits and Stormwater Management occupancy permits, as prescribed herein. A record of all permits shall be kept on file and shall be available for public inspection.
- C. **Secretary to the Zoning Board of Adjustment.** The Planning Director shall serve as secretary to the Stormwater and Zoning Board of Adjustment.
- D. **Maintain Records of Amendments Related to the Provisions of this Ordinance.** The Planning Director shall keep records of all amendments to this Ordinance and shall provide copies of all amendments upon adoption to the Supervisor of the Classification and Standards Group, Water Quality Section, Division of Environmental Management, North Carolina Department of Environmental Quality (NCDEQ).
- E. **Maintain Records of Variances.** The Planning Director shall keep a record of variances and exceptions granted in accordance with this Ordinance. This record shall be submitted to the North Carolina Division of Water Quality on or before January 1 of each year and shall provide a description of each project receiving a variance and the reasons for granting the variance.

### 3-3. WATERSHED CLASSIFICATIONS AND SUBAREAS ESTABLISHED

The following watershed classifications and subareas are established for designated Public Water Supply Watersheds in Lewisville. The boundaries of each subarea are shown on the Watershed Map.

### 3-3.1. WATERSHED CLASSIFICATIONS

The following watershed classifications are established for designated water supply watersheds and protected areas in Lewisville:

- A. **WS-IV Watersheds.** The Yadkin River Watershed is subdivided into the Upper and Lower Watersheds and designated as protected areas for water supply intakes on the Yadkin River.

Table C.3.1 Water Supply Watershed Classification

ACTIVITY/USE	WATER SUPPLY WATERSHED CLASSIFICATION							
	WS-I	WS-II CA	WS-II BW	WS-III CA	WS-III BW	WS-IV CA	WS-IV PA	WS-V
New Landfills	No	No	Yes	No	Yes	No	Yes	Yes
New permitted residual land application	No	No	Yes	No	Yes	No	Yes	Yes
New permitted petroleum contaminated soils sites	No	No	Yes	No	Yes	No	Yes	Yes
NPDES General or Individual Stormwater discharges	Yes <sup>a</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NPDES General Permit Wastewater Discharges pursuant to 15A NCAC 02H .0127	Yes <sup>a</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NPDES Individual Permit trout farm discharges	Yes <sup>a</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NEW NPDES Individual Permit domestic treated wastewater discharge	No	No	No	No	Yes	Yes	Yes	Yes
NEW NPDES Individual Permit Industrial treated wastewater discharge	No	No	No	No <sup>b</sup>	No <sup>b</sup>	Yes	Yes	Yes
Non-process industrial waste	No	No	No	Yes	Yes	Yes	Yes	Yes
New industrial connections and expansions to existing municipal discharge with pretreatment program pursuant to 15A NCAC 02H .0904	No	No	No	No	No	Yes	Yes	Yes
Sewage	No	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	Yes <sup>d</sup>
Industrial Waste	No	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	Yes <sup>d</sup>
Other wastes	No	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	No <sup>c</sup>	Yes <sup>d</sup>
Groundwater remediation project discharges <sup>e</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agriculture <sup>f</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

# SECTION 3 - STORMWATER MANAGEMENT AND WATERSHED PROTECTION

5/2/25

ACTIVITY/USE	WATER SUPPLY WATERSHED CLASSIFICATION							
	WS-I	WS-II CA	WS-II BW	WS-III CA	WS-III BW	WS-IV CA	WS-IV PA	WS-V
Siviculture <sup>g</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Residential Development <sup>h</sup>	No <sup>j</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Non-residential Development <sup>h,i</sup>	No <sup>j</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nonpoint Source Pollution <sup>k</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Animal Operations <sup>l</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

<sup>a</sup> Permitted pursuant to 15A NCAC 02B .0104

<sup>b</sup> Except non-process industrial discharges are allowed

<sup>c</sup> Only allowed if specified in 15A NCAC 02B .0104

<sup>d</sup> Not allowed if activity(ies) has/have adverse impact on human health

<sup>e</sup> Where no other practical alternative exists

<sup>f</sup> In WS-I watersheds and Critical Areas of WS-II, WS-III, and WS-IV watersheds, agricultural activities conducted after 1/1/1993 shall maintain a minimum 10- foot vegetated setback or equivalent control as determined by Soil and Water Conservation Commission along all perennial waters indicated on most recent version of USGS 1:24000 scale (7.5 minute) topographic maps or as determined by local government studies

<sup>g</sup> Subject to Forest Practice Guidelines Related to Water Quality (02 NCAC 60C .0100 to .0209) Effective 4/1/2018

<sup>h</sup> See density requirements in 15A NCAC 02B .0624

<sup>i</sup> See different allowed and not allowed in this table

<sup>j</sup> Watershed shall remain undeveloped except for following uses when they cannot be avoided: power transmission lines, restricted access roads, and structures associated with water withdrawal, treatment, and distribution of WS-I waters. Built upon area shall be designed and located to minimize stormwater runoff impact to receiving waters.

<sup>k</sup> Non-Point Source pollution shall not have adverse impact, as defined in 15A NCAC 02H .1002, on use as water supply or any other designated use

<sup>l</sup> Deemed permitted, as defined in 15A NCAC 02T .0103 and permitted under 15A NCAC 2H .0217.



### **3-3.2. RULES GOVERNING THE INTERPRETATION OF WATERSHED AREA BOUNDARIES**

Where uncertainty exists or where a person disputes the boundaries of the watershed or any watershed subareas, as shown on the Watershed Map, the following rules shall apply:

- A. **Constructed Features.** Where area boundaries are indicated as approximately following either street, alley, railroad or highway lines, or centerlines thereof, such lines shall be constructed to be said boundaries.
- B. **Lot Lines.**
1. Where area boundaries are indicated as approximately following lot lines, such lot lines shall be constructed to be said boundaries. However, a surveyed plat prepared by a registered land surveyor may be submitted to the Town of Lewisville as evidence that one or more properties along these boundaries do not lie within the watershed area.
  2. Where the watershed area boundaries lie at a scaled distance more than twenty-five (25) feet from any parallel lot line, the location of watershed area boundaries shall be determined by use of the scale appearing on the watershed map. Any ambiguities should be resolved in favor of locating built-upon surface area in the least environmentally sensitive area of the project.
  3. Where the watershed area boundaries lie at a scaled distance of twenty-five (25) feet or less from any parallel lot line, the location of watershed area boundaries shall be constructed to be the lot line.
- C. **Determination by the Watershed Administrator.** Where other uncertainty exists, the Stormwater Administrator shall interpret the *Watershed Map* to location of such boundaries. This decision may be appealed to the Zoning Board of Adjustment.

### **3-3.3. DENSITY AND BUILT-UPON LIMITS**

- A. **Project Density.** The following maximum allowable project densities and minimum lot sizes outlined in *Table C.3.2 Maximum Allowable Project Density or Minimum Lot Size* shall apply to a project according to the classification of the water supply watershed where it is located, its relative location in the watershed, its project density, and the type of development.

Table C.3.2 Maximum Allowable Project Density or Minimum Lot Size

Water Supply Classification	Location in Watershed	Maximum Allowable Project Density or Minimum Lot Size		
		Low Density Development		High Density Development
		Single-Family Detached Residential	Non-Residential and All Other Residential	All Types
WS-IV	Critical Area	1 du per one-half acre or 1 du per 20,000 square foot lot excluding roadway right-of-way or 24% built upon area	24% built-upon area	24 to 50% built upon area
	Protected Area	1 du per one-half acre or 1 du per 20,000 square foot lot excluding roadway right-of-way or 24% built-upon area; or 3 dus per acres or 36% built-upon area without curb and gutter street system	24% built-upon areas; or 36% built-upon areas without curb and gutter street system	24 to 70% built-upon area

**B. Calculation of Project Density.** The following requirements shall apply to the calculation of project density.

1. Project density shall be calculated as the total built-upon areas divided by the total project area;
2. A project with "Existing Development," as defined in this ordinance, may use the calculation method in sub-item 1 noted above of this Item or may calculate project

density as the difference of total built-upon area minus existing built-upon area divided by the difference of total project area minus existing built-upon area.

3. Expansions to Existing Development shall be subject to 15A NCAC 02B .0624 except as excluded in Rule 15A NCAC 02B .0622 (1)(d).
  4. Where there is a net increase of built-upon area, only the area of net increase shall be subject to density and built upon area limits.
  5. Where Existing Development is being replaced with new built-upon area, and there is a net increase of built-upon area, only the area of net increase shall be subject to density and built upon area limits
  6. Total project area shall exclude the following:
    - (1) areas below the Normal High Water Line (NHWL); and
    - (2) areas defined as "coastal wetlands" pursuant to 15A NCAC 07H .0205, herein incorporated by reference, including subsequent amendments and editions, and available at no cost at <http://reports.oah.state.nc.us/ncac.asp>, as measured landward from the NHWL; and
  7. Projects under a common plan of development shall be considered as a single project for purposes of density calculation except that on a case-by-case basis, the Town of Lewisville may allow projects to be considered to have both high- and low-density areas based on one or more of the following criteria:
    - (1) natural drainage area boundaries;
    - (2) variations in land use throughout the project; or
    - (3) construction phasing.
- C. **Low Density Projects.** In addition to complying with the project density requirements, low density projects shall comply with the following:
1. **Vegetated Conveyances.** Stormwater runoff from the project shall be released to vegetated areas as dispersed flow or transported by vegetated conveyances to the maximum extent practicable. In determining whether this criterion has been met, the Town of Lewisville shall take into account site-specific factors such as topography and site layout as well as protection of water quality. Vegetated conveyances shall be maintained in perpetuity to ensure that they function as

designed. Vegetated conveyances that meet the following criteria shall be deemed to satisfy the requirements of this Sub-Item:

- (1) Side slopes shall be no steeper than 3:1 (horizontal to vertical) unless it is demonstrated to the Town of Lewisville that the soils and vegetation will remain stable in perpetuity based on engineering calculations and on-site soil investigation; and
- (2) The conveyance shall be designed so that it does not erode during the peak flow from the 10-year storm event as demonstrated by engineering calculations.

2. **Curb Outlet Systems.** In lieu of vegetated conveyances, low density projects shall have the option to use curb and gutter with outlets to convey stormwater to grassed swales or vegetated areas. Requirements for these curb outlet systems shall be as follows:

- (1) The curb outlets shall be located such that the swale or vegetated area can carry the peak flow from the 10-year storm and at a non-erosive velocity;
- (2) The longitudinal slope of the swale or vegetated area shall not exceed five percent except where not practical due to physical constraints. In these cases, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;
- (3) The swale's cross section shall be trapezoidal with a minimum bottom width of two feet;
- (4) The side slopes of the swale or vegetated area shall be no steeper than 3:1 (horizontal to vertical);
- (5) The minimum length of the swale or vegetated area shall be 100 feet; and
- (6) Low density projects may use treatment swales designed in accordance with 15A NCAC 02H .1061 in lieu of the requirements specified in Sub- Items (a) through (e) of this Sub-Item.

D. **High-Density Projects.** In addition to complying with the project density requirements, high density projects shall comply with the following:

1. Stormwater Control Measures (SCMs) shall be designed, constructed, and maintained so that the project achieves either "runoff treatment" or "runoff volume match" as those terms are defined in 15A NCAC 02B .0621;
2. For high density projects designed to achieve runoff treatment, the required storm depth shall be one inch. Applicants shall have the option to design projects to achieve runoff volume match in lieu of runoff treatment;
3. Stormwater runoff from off-site areas and Existing Development, shall not be required to be treated in the SCM. Runoff from off-site areas or existing development that is not bypassed shall be included in sizing of on-site SCMs;
4. SCMs shall meet the relevant Minimum Design Criteria set forth in 15A NCAC 02H.1050 through .1062; and
5. Stormwater outlets shall be designed so that they do not cause erosion downslope of the discharge point during the peak flow from the 10-year storm event as shown by engineering calculations.

E. **Implementing Project Density.** The Town of Lewisville shall have the following options in place of or in addition to the requirements of *Table C.3.2 Maximum Allowable Project Density or Minimum Lot Size*, as appropriate:

1. The Town of Lewisville may regulate low density single-family detached residential development using the minimum lot size requirements, dwelling unit per acre requirements, built-upon area percentages, or some combination of these.
2. **Optional 10/70 Rule.** Outside of the WS-I watersheds and the critical areas of WS-II, WS-III, and WS-IV watersheds, the Town of Lewisville may regulate new development under the "10/70 option" in accordance with the following requirements:
  - (1) A maximum of 10 percent of the land area of a water supply watershed outside of the critical area and within Lewisville's planning jurisdiction may be developed with new development projects and expansions of existing development of up to 70 percent built-upon area.
  - (2) In water supply watersheds classified on or before August 3, 1992, the beginning amount of acreage available under this option shall be based on a local government's jurisdiction as delineated on July 1, 1993. In water supply

watersheds classified after August 3, 1992, the beginning amount of acreage available under this option shall be based on a local government's jurisdiction as delineated on the date the water supply watershed classification became effective. The acreage within the critical area shall not be counted towards the allowable 10/70 option acreage;

- (3) Projects that are covered under the 10/70 option shall comply with the low density requirements set forth in Item C above. Otherwise, they shall be classified and regulated as high-density projects according to the requirements set forth in Item D;
  - (4) The maximum built-upon area allowed on any given new development project shall be 70 percent;
  - (5) The Town of Lewisville may transfer, in whole or in part, its right to the 10/70 land area to another local government within the same water supply watershed upon submittal of a joint resolution and approval by the Commission; and
  - (6) When the water supply watershed is composed of public lands, such as National Forest land, Lewisville may count the public land acreage within the watershed outside of the critical area in calculating the acreage allowed under this provision.
3. New development shall meet the development requirements on a project-by-project basis except that the Town of Lewisville may submit ordinances that use density or built-upon area criteria averaged throughout the local government's watershed jurisdiction instead of on a project-by-project basis within the watershed. Prior to approval of the ordinance, the Lewisville Town Council shall demonstrate to the Commission that the provisions as averaged meet or exceed the statewide minimum requirements and that a mechanism exists to ensure the planned distribution of development potential throughout the local government's jurisdiction within the watershed.
  4. The Town of Lewisville may administer oversight of future development activities in single-family detached residential developments that exceed the applicable low density requirements by tracking dwelling units rather than percentage built-upon area, as long as the SCM is sized to capture and treat runoff from 1) all pervious and built-upon surfaces shown on the development plan and 2) any off-site

drainage from pervious and built-upon surfaces, and when an additional safety factor of 15 percent of built-upon area of the project site is figured in.

**F. Density Averaging.**

1. An applicant may average development density on up to two noncontiguous properties for purposed of achieving compliance with the water supply watershed development standards if all of the following circumstances exist:
  - (1) The properties are within the same water supply watershed. However, if one of the properties is located in the critical area of the watershed, the critical area property shall not be developed beyond the applicable density requirements for its classification.
  - (2) Overall project density meets applicable density or stormwater control requirements under 15A NCAC 2B .0200.
  - (3) Vegetated setbacks on both properties meet the minimum statewide water supply watershed protection requirements.
  - (4) Built upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.
  - (5) Areas of concentrated density development are located in upland areas and, to the maximum extent practicable, away from surface waters and drainageways.
  - (6) The property or portions of the properties that are not being developed will remain in a vegetated or natural state and will be managed by a homeowners' association or similar entity as common area, conveyed to the Town of Lewisville as a park or greenway, or placed under a permanent conservation or farmland preservation easement unless it can be demonstrated that Lewisville can ensure long-term compliance through deed restrictions and an electronic permitting mechanism. A metes and bounds description of the areas to remain vegetated and limits on use shall be recorded on the subdivision plat, in homeowners' covenants, and on individual deeds. Any such limitations or restrictions on use shall be irrevocable.



- (7) Development permitted under density averaging and meeting applicable low density requirements shall transport stormwater runoff by vegetated conveyances to the maximum extent practicable.
- (8) A special use permit shall be obtained from the Zoning Board of Adjustment to ensure that both properties considered together meet the standards of the watershed ordinance and that potential owners have record of how the watershed regulations were applied to the properties.

### **3-3.4. [WATERSHED SUBAREAS] RESERVED**

### **3-3.5. SUBDIVISION REGULATIONS IN THE WATERSHED AREA**

#### **A. General Provisions.**

1. No subdivision plat of land within the Water Supply Watershed shall be filed or recorded by the Register of Deeds until it has been approved in accordance with the provisions of this Article. Likewise, the Clerk of Superior Court shall not order or direct the recording of a plat if the recording of such plat would conflict with this Article.
2. The approval of a plat by itself does not constitute acceptance by the Town of Lewisville the dedication of any street or other ground, easement, right-of-way, public utility line, or other public facility shown on the plat and shall not be construed to do so.
3. All subdivisions shall conform with the mapping requirements contained in G.S. 47-30.
4. All subdivisions of land within the jurisdiction of Lewisville after the effective date of this ordinance shall require a plat to be prepared, approved, and recorded pursuant to the requirements of this Ordinance.

#### **B. Subdivision Application and Review Procedures.**

1. All proposed subdivisions shall be reviewed prior to recording with the Register of Deeds by submitting a preliminary plat to the Watershed Administrator to determine whether or not the property is located within the designated Water Supply Watershed. The preliminary plat shall include a description of the proposed method

of providing storm water drainage, and supporting documentation deemed necessary by the Watershed Administrator or the Watershed Review Board.

2. Subdivisions within the designated watershed area shall comply with the provisions of this Ordinance and all other state and local requirements that may apply.
3. The Watershed Administrator shall review the preliminary and final plat for any properties located within a regulated watershed according to the procedures described in *Chapter A.6-3.10(C) Approval Process for Preliminary Major Subdivisions*. The Watershed Administrator or the Watershed Review Board may provide public agencies an opportunity to review and make recommendations. Said public agencies may include, but are not limited to, the following:
  - (1) The NCDOT district highway engineer;
  - (2) The Winston-Salem/Forsyth County Division of Environmental Health (EHS);
  - (3) The Winston-Salem/Forsyth County Utilities Division (CCUC);
  - (4) The Winston-Salem/Forsyth Division of Erosion Control (WS/FC DEC);
  - (5) The NC Division of Water Resources (NC DWR);
  - (6) The NC Department of Environmental Quality (NC DEQ);
  - (7) The NC Department of Energy, Minerals and Land Resources (NC DEMLR).

**C. Subdivision Standards and Required Improvements.**

1. All lots shall provide adequate building space in accordance with the development standards contained in in this Ordinance. Lots smaller than the minimum required for residential lots may be developed using built-upon area criteria in accordance with this Ordinance.
2. For the purpose of calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.
3. **Storm Water Drainage Facilities.** The subdivision application shall be accompanied by a description of the proposed method of providing storm water drainage. No final plat shall be approved until the subdivider receives a Stormwater Management Permit from the Lewisville Stormwater Administrator, designees, or other authorized Town official.

4. **Erosion and Sedimentation Control.** The application shall be accompanied by the Sedimentation and Erosion Control Plan approval by the WS/FC DEC, NC DEQ or NC DEMLR.

### **3-3.6. CLUSTER DEVELOPMENT**

Cluster Development is allowed in all Watershed Areas, except WS-I, under the following conditions:

- A. Maximum lot sizes are not applicable to single family cluster development projects; however, the total number of lots shall not exceed the number of lots allowed for single family detached developments in *Section C.3-3.3 Density and Built-Up Areas*. Density of built-upon area for the project shall not exceed that allowed for the critical areas, balance of watershed, or protected area, whichever applies.
- B. All built-upon area shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.
- C. All built-upon area shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.
- D. The remainder of the tract shall remain in a vegetated or natural state. The title to the open space area shall be conveyed to an incorporated homeowners association for management; to a local government for preservation as a park or open space; or to a conservation organization for preservation in a permanent easement.
- E. The remainder of the tract shall remain in a vegetated or natural state. The title to the open space area shall be conveyed to an incorporated homeowners association for management; to a local government for preservation as a park or open space; or to a conservation organization for preservation in a permanent easement.

## 3-4. PROHIBITED AND RESTRICTED USES AND ACTIVITIES

### 3-4.1. PROHIBITED USES

- A. **Protection Area of WS-IV Watersheds.** In the Protection Areas of WS-IV watersheds, new sanitary landfills and new sites for land application of sludge residuals or petroleum contaminated soils shall be prohibited.

### 3-4.2. SPILL CONTAINMENT STRUCTURES REQUIRED

New nonresidential development must incorporate adequately designed, constructed, and maintained spill containment structures and mechanisms for the hazardous materials used, stored, or manufactured on the premises. Adequately designed, constructed, and maintained shall mean that measures are taken to contain any and all spilled materials to ensure no adverse environmental impacts occur. Certification from a registered professional engineer that adequate spill containment structures are in place is required prior to the issuance of a Stormwater Management occupancy permit.

## 3-5. STREAM BUFFERS

### 3-5.1. APPLICABILITY

- A. **Requirement.** Stream Buffers shall be required for all intermittent and perennial surface waters. Surface waters 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 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). Additionally, any perennial or intermittent surface waters are not depicted on these maps but identified by a licensed NC Soil Scientist or other qualified official are subject to riparian buffer requirements.
- B. **Exemptions.** Where USGS topographic maps do not distinguish between perennial and intermittent streams, an on-site stream determination may be performed by an individual qualified to perform such stream determinations.
- C. **Indicated on Site Plans and Plats.** Required stream buffers shall be indicated on all site plans and subdivision plats.

### **3-5.2. RIPARIAN BUFFER STANDARDS**

- A. **Width.** A minimum one hundred (100) foot vegetative setback is required on each side of any stream or water body for all new development activities that exceed the low density option; otherwise, a minimum thirty (30) foot vegetative setback is required for all intermittent and perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies, licensed NC Soil Scientist or other qualified official.
- B. **Development in the Stream Buffer.** No new development is allowed in the buffer except for water dependent structures, other structures such as flag poles, signs, and security lights which result in only diminutive increases in impervious area and public projects such as road crossings and greenways where no practical alternative exists. These activities should minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of stormwater Best Management Practices.
- C. **Streambank Stabilization.** Desirable artificial streambank or shoreline stabilization is permitted in the stream buffer.

## **3-6. WATER QUALITY AND SUPPLY**

### **3-6.1. GENERAL**

No activity, structure or land use shall be allowed within the watershed which poses a threat to water quality. Threats may arise from inadequate on-site wastewater treatment facilities systems which utilize ground absorption; inadequate sedimentation and erosion control measures; the improper storage or disposal of junk, trash or other refuse within a buffer area; the absence or improper implementation of a spill containment plan for hazardous materials; the improper management of stormwater runoff; or any other situation found to pose a threat to water quality.

### **3-6.2. ABATEMENT**

- A. **Identification.** The Watershed Administrator shall monitor land use activities within the watershed areas to identify situations that may pose a threat to water quality.
- B. **Reporting.** The Watershed Administrator may report any threats to water quality to the Watershed Review Board, NC DEQ, NC DEMLR, the NC Environmental Management

Commission and any other agency charged with the protection of water quality and supply.

- C. **Actions.** Where the Watershed Administrator or Watershed Review Board finds a potential threat to water quality, public health, safety or welfare, any and all available actions and proceedings may be pursued to restrain, correct or abate the condition and/or violation.

## 3-7. DEVELOPMENT STANDARDS

### 3-7.1. GENERAL PROVISIONS

A. Planning Board Review.

1. When approving major subdivisions plats and site plans as required under this Ordinance in designated watershed, the Planning Board shall find the following provisions have been met:
  - (1) Areas with impervious surface cover are designed and sited to minimize stormwater runoff and limit concentrated stormwater flow; and
  - (2) Land disturbance is minimized, existing vegetated areas are retained to the maximum degree possible, and all undeveloped areas of the site will be revegetated to promote stormwater infiltration.

### 3-7.2. DEVELOPMENT STANDARDS

Unless specifically exempted in 8.3.1D, Applicability, all subdivisions of land and development in designated watersheds shall meet the provisions below.

A. **General Provisions For Residential Development.**

1. **Minor Subdivisions.** Lots in minor subdivisions subject to administrative approval must meet the minimum size requirements for the respective watershed subarea described below.
2. **Major Subdivisions, Planned Residential Developments, and Multifamily Developments.** New residential development in major subdivisions, planned residential developments, and multifamily developments must meet the minimum lot size, the maximum average density, or the maximum built-upon area requirements of the respective watershed subarea as required below.

### 3. Recording Ownership Requirements.

- (1) **Average Density Alternative.** If an applicant chooses the average density alternative, restrictions preventing further lot subdivision and maintaining common/open space must be shown on the face of the plat and included as deed covenants for all properties.
- (2) **Built-Up Area Alternative.** If the applicant chooses the maximum built-upon area alternative, the square footage or acreage for roads, common/open spaces, multi-family and single-family residential structures must be shown on the face of the plat and included as deed covenants for each property.
- (3) **Ownership of Common and Open Space.** Except as required in other sections of this Ordinance, common space and open space may be retained in private ownership or may be transferred to a homeowner's association, a governmental unit, a conservation organization or similar entity.

### B. Requirements For WS-IV Watersheds.

1. **Critical Area.** The following provisions apply in the Critical Area of WS-IV watersheds:
  - (1) **Residential Development Requirements.**
    - i. **Minimum Lot Size.** The minimum lot size shall be at least twenty thousand (20,000) square; or
    - ii. **Maximum Average Density.** The average density shall not exceed two (2) dwelling units per acre; or
    - iii. **Maximum Built-Up Area.** The built-upon area shall not exceed twenty-four percent (24%) of the site.
  - (2) **Nonresidential Development Requirements.** The built-upon area of nonresidential development shall not exceed twenty-four percent (24%) of the site.
2. **Protected Areas of the Watershed.** The following provisions apply in the Protected Areas of the Watershed in WS-IV watersheds:



- (1) **For Projects Without a Curb and Gutter Street System.** For subdivisions and development without a curb and gutter street system, the following provisions shall apply:

i. **Residential Development Requirements.**

- a. **Minimum Lot Size.** The minimum lot size shall be at least twenty thousand (20,000) square feet; or
- b. **Maximum Average Density.** The average density shall not exceed three (3) dwelling units per acre; or
- c. **Maximum Built-Up Area.** The built-upon area shall not exceed thirty-six percent (36%) of the site.

- ii. **Nonresidential Development.** The built-upon area of nonresidential development shall not exceed thirty-six percent (36%) of the site.

- (2) **For Projects with a Curb and Gutter Street System.** For subdivisions and development with a curb and gutter street system, the following provisions shall apply:

i. **Residential Development Requirements.**

- a. **Minimum Lot Size.** The minimum lot size shall be at least twenty thousand (20,000) square feet; or
- b. **Maximum Average Density.** The average density shall not exceed one (1) dwelling per twenty thousand (20,000) square feet; or
- c. **Maximum Built-Up Area.** The built-upon area shall not exceed twenty-four percent (24%) of the site.

- ii. **Nonresidential Development.** The built-upon area of nonresidential development shall not exceed twenty-four percent (24%) of the site.

- (3) **Special Intensity Development Allocation.** In Lewisville's zoning jurisdiction, non-single residential family uses may seek a special intense development allocation (SIDA) in accordance with the provisions of *Section C.3-7.2(C) Lewisville Special Intensity Development Allocation (SIDA)*.

**C. Lewisville Special Intensity Development Allocation (SIDA).****1. General Provisions.**

- (1) **Special Intensity Allocation Established.** This section establishes a special intense development allocation (SIDA) to permit development of up to seventy percent (70%) built upon area on a project by project basis in the designated WS-IV watershed areas regulated by these standards in Lewisville's zoning jurisdiction.
- (2) **Established Pursuant to NC Water Supply Protection Rules.**
  - i. These provisions are established pursuant to the North Carolina Water Supply Watershed Protection Rules which permit up to ten percent (10%) of the WS-IV Protected Areas delineated as of July 1, 1995 to be developed with seventh percent (70%) built upon surface area.
  - ii. This section provides for allocation of five percent (5%) of the land area in each jurisdiction's land area, with the remaining five percent (5%) to be held in reserve for future allocation by the Lewisville Board of Commissioners.
- (3) **Available Acreage.** The total acreage of land area located in the Yadkin River Watershed WS-IV area in Lewisville is delineated as of July 1, 1995.
- (4) **Allocation and Averaging.**
  - i. The Watershed Administrator may grant a SIDA of up to seventy percent (70%) built upon area on all or part of the land area of a project.
  - ii. The SIDA may be averaged throughout the project.
- (5) **Transfer of Acreage to Other Local Governments.**
  - i. The Lewisville Town Council may transfer any portion of the available acreage to another local government having jurisdiction in the respective watershed area for projects that meet a countrywide need or that provide a significant economic benefit to the Town.
  - ii. The acreage shall be transferred by adoption of a join resolution of the Forsyth County Board of Commissioners and the Lewisville Town Council.

- iii. The joint resolution shall be submitted to the Environmental Management Commission for review.

## **2. Application and Submittal Requirements.**

### **(1) Application and Site Plan.**

- i. Applications for a SIDA shall be submitted to the Planning Director and shall include a site plan in conformance with the Form 1 Submittal Requirements of *Section A.4-3.11(H) Form 1 Submittal Requirements*.
- ii. The Lewisville Watershed Administrator in conjunction with the Town Council, may choose to prioritize SIDA applications based on the degree of benefit to the Town and its residents.
- iii. The Planning Director may request additional information from the applicant in order to assess whether the application meets the approval criteria listed at *Section C.3-7.2(C)(3) Criteria for Approval*.
- iv. The application shall also include a fee for site plan review as established by the Town Council.

### **(2) Stormwater Controls Required.**

#### **i. For All Projects in the WS-IV Watersheds.**

- a. Developments granted a SIDA in WS-IV watersheds must utilize stormwater controls based on the stormwater quality management permit requirements of *Section C.3-8.2(A) Stormwater Management Permits*.
- b. The required site plan shall include the proposed location of the stormwater control measures.

### **(3) Site Design Requirements.**

- i. As required by the State of North Carolina under the water supply protection rules, each project granted a SIDA must to the maximum extent practicable minimize built-upon surface area, direct stormwater runoff from surface waters and incorporate best management practices to minimize water quality impacts.

- ii. The Planning Director, Watershed Review Board, and/or Town Council may impose site plan conditions in order to meet these requirements.
- (4) **Staff Review.** The Planning Director will review the application and prepare a report with a summary of findings.
- 3. **Criteria For Approval.** The Planning Director or Watershed Review Board and/or Town Council may approve the application for a SIDA based upon the project meeting all the following criteria:
  - (1) The proposed project is in conformance with the adopted Lewisville Comprehensive Plan.
  - (2) The proposed project land use and site design are compatible with the general character of the area and surrounding land uses.
  - (3) The proposed project provides a significant benefit to the residents of Lewisville and visitors.
  - (4) The proposed project does not pose a threat to the environment, especially water quality, and appropriate measures will be taken to minimize any potential negative environmental impacts.
  - (5) The proposed project has adequate transportation access, including proximity to major or minor throughfares.
- 4. **Other Provisions.**
  - (1) **Permits Following Approval of SIDA.**
    - i. If a SIDA request is approved, the Watershed Admin may grant any necessary permits subject to the approved site plan or other requirements of this Ordinance.
    - ii. All necessary permits must be obtained prior to the issuance of occupancy permits.
  - (2) **Appeal or Denial.**
    - i. If the request is denied by the Planning Director, the applicant may appeal the determination to the Watershed Review Board within thirty (30) days within having received constructive notice of the denial.
  - (3) **Expiration of Allocation.**

- i. The SIDA shall expire if occupancy permits are not obtained for the project within two (2) years of approval of the SIDA by the.
  - ii. If occupancy permits are issued for a portion of the project within the two (2) year period, the SIDA will be extended for one additional two (2) year period.
  - iii. Applicants may resubmit requests for expired allocations.
- (4) **Maintenance of Records.** The watershed administrator shall keep a record of all allocations and permits issued under the SIDA provisions.

## 3-8. STORMWATER MANAGEMENT PLAN

### 3-8.1. APPLICABILITY

The landowner or owner's agent for any new or redevelopment must submit a Stormwater Management Plan, hereinafter ("Plan"), demonstrating 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. Stormwater facilities may consist of non-structural approaches such as natural swales, depressions in the land and other natural approaches; or structural approaches such as detention structures (wet and dry basins), extended detention facilities, and alternative Stormwater Control Measures with provisions for stormwater quantity control. A combination of non-structural and structural approaches is encouraged. A plan, in accordance with the requirements of this Ordinance, shall be submitted to the Stormwater Administrator.

A. **Requirements.** All submitted Stormwater Management Plans to be considered complete must include the following:

1. A Location Map.
2. Site plans showing existing and proposed conditions, including: buildings, lots, streets, roads, contours, utilities, existing and proposed impervious surfaces, boundaries of existing predominant vegetation and proposed limits of clearing and grading. Site plans shall be dated, indicate the direction of North. Note: If applicable, when the development includes public street and utility construction, plans for these streets and plans for water, sanitary sewer, and storm sewer facilities shall be submitted to the Stormwater Administrator following approval by North Carolina

DOT of plans for streets and roads. For each phase of the proposed construction, street and utility construction plans shall include all improvements lying within or adjacent to that phase and all water, sanitary sewer, and storm sewer lines lying outside that phase and being required to serve that phase.

3. Pre- and post-development drainage areas, including offsite drainage entering the development and time of concentration flow paths depicted on the drainage maps.
  4. Existing and proposed drainage components, such as streams, lakes, ponds, wetlands, culverts, ditches, swales, and soil conditions.
  5. Riparian buffers with zones identified and conservation corridors, where required.
  6. All drainage and stormwater management facility easements, where required.
  7. All designated floodways, non-encroachment areas and flood hazard areas.
  8. Hydrologic/Hydraulic Analyses of the specified storm events for the proposed stormwater management facilities.
  9. Stormwater management facilities design data included:
    - (1) Engineering calculations,
    - (2) Total area of proposed impervious surfaces, in square feet,
    - (3) Total disturbed land area, in square feet,
    - (4) Total drainage area upstream of each facility, in acres.
  10. Analyses with descriptions of any potential effects of stormwater runoff quantity and/or quality from the development on any downstream or upstream properties.
  11. Data demonstrating the ability of the drainage way(s) to handle stormwater runoff.
  12. Additional requirements for the Stormwater Management Plan can be found in the NCDEQ Design Manual.
- B. **Effective Date.** The effective date of this ordinance shall be the date of its adoption by the Town Council.

### **3-8.2. PERMITS**

#### **A. Stormwater Management Permits.**

1. **Permit Required.** Unless exempt pursuant with *Section C.3-1.7 Exemptions to Applicability*, no building or built-upon area shall be erected or expanded, nor shall any building or zoning permit be issued, until a Stormwater Management permit has been issued by the Stormwater Administrator. No Stormwater Management permit shall be issued except in conformity with the provisions of this Ordinance.
2. **Application for Permit.** Stormwater Management permit applications shall be filed with the Stormwater Administrator. The application shall include a completed application form, supporting documentation deemed necessary by the Stormwater Administrator, and the application fee as established by *Section C.3-8.3 Application and Inspection Fees*.
  - (1) An application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this Ordinance, along with any required fees. 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.
3. **Review.** Within thirty (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.
  - (1) **Approval.** If the Stormwater Administrator finds that the application complies with the standards of this Ordinance, the Stormwater Administrator shall approve the application and notify the applicant in writing. 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.
  - (2) **Fails to Comply.** If the Stormwater Administrator finds that the application fails to comply with the standards of this Ordinance, 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.



- (3) **Revision and Subsequent Review.** A complete revised application shall be reviewed by the Stormwater Administrator within thirty (30) working days after its re-submittal and shall be approved, approved with conditions or disapproved.
- i. If a revised application is not re-submitted within thirty (30) calendar days 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.
  - ii. One re-submittal of a revised application may be submitted without payment of an additional permit review fee. An additional permit review fee will be required for resubmissions, determined according to the current schedule of fees.

#### 4. Applications for Approval.

- (1) **Concept Plan and Consultation Meeting.** A consultation meeting with the Stormwater Administrator is highly encouraged before submitting a stormwater management concept plan application. The purpose of the consultation is to discuss the post-construction stormwater management measures necessary for the proposed project, including assessment of constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering begins. The Watershed Map, the *Lewisville Comprehensive Plan*, the *Lewisville Transportation Plan*, and other relevant resource protection plans may be consulted in the discussion of the concept plan. The concept plan should be submitted before the consultation and contain the following information:
- (2) **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 (when available); boundaries of existing predominant vegetation and proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.
- i. **Natural Resources Inventory.** A written or graphic inventory of the 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 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.

- ii. **Stormwater Management System Concept Plan.** A written or 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 proposed stream channel modifications, such as bridge or culvert crossings.

- (3) **Stormwater Management Permit Application.** The stormwater management permit application shall be accompanied by an Operations and Maintenance Agreement and detailed Stormwater Management Plans showing how post-development stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this Ordinance, including *Section C.3-7 Development Standards*. All such plans shall be prepared by a licensed or registered professional engineer, land surveyor, landscape architect and/or soil scientists, who shall certify, under seal, that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, according to the terms of this Ordinance.

- 5. **Consultation on Permit Issuance.** Prior to issuing a Stormwater Management permit, the Stormwater Administrator may consult with qualified personnel to determine if the application meets the requirements of this Ordinance.

6. **Effect of Approval.** Approval authorizes only the plans and activities specified in the permit. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.
7. **Permit Expiration.** An approved plan shall be nullified if the applicant does not make substantial progress within one (1) year after the date of permit approval. The Stormwater Administrator may grant two, one-year extensions after receiving a written request from the applicant before the expiration of the originally approved plan.

**B. Final Permit.**

1. **Certified As-Built Plans.** No structure that has been built or enlarged, may be occupied until the Stormwater Administrator has received and approved Certified As-Built Plans and issued a Stormwater Management Permit. The as-built plans shall be certified or sealed by the preparer. The plans shall show the final design specifications for and the location of all stormwater control measures, in conformance with this Ordinance. If applicable, the Stormwater Administrator shall provide a final inspection before the release of any performance guarantees.

- C. **Denial of Permit.** If the Stormwater Management permit is denied, the Stormwater Administrator shall notify the applicant in writing stating the reasons for denial.

### **3-8.3. APPLICATION AND INSPECTION FEES**

- A. **Payment of Fees.** Payment of any applicable fees is required before a Stormwater Management Permit may be issued.
- B. **Fees Established.** Permit application fees shall be determined by the Lewisville Town Council and published in the current schedule of fees.

## **3-9. MAINTENANCE**

### **3-9.1. GENERAL STANDARDS FOR MAINTENANCE**

- A. **Function of SCMs as Intended.** The owner of each structural SCM installed pursuant to this Ordinance shall maintain and operate it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the structural SCM was designed.

**B. Annual Maintenance Inspection and Report.** The person responsible for maintenance of any structural SCM installed pursuant to this Ordinance shall submit to the Stormwater Administrator an annual maintenance and inspection report from a licensed North Carolina professional engineer, or certified stormwater SCM inspection and maintenance professional. All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification.

1. The inspection report shall contain all of the following:

- (1) The name and address of the land owner;
- (2) The recorded plat book and page number indicating the location of each structural SCM;
- (3) Confirmation that an inspection was made of all structural SCMs;
- (4) The date the inspection was made;
- (5) A statement that all inspected structural SCMs are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this Ordinance; and
- (6) The original signature and seal of the engineer or other stormwater SCM inspection and maintenance professional.

### **3-9.2. OPERATIONS AND MAINTENANCE AGREEMENT**

**A. General.** Prior to the conveyance or transfer of any lot or building site to be served by a structural SCM pursuant to this Ordinance, and prior to issuance of any permit for development or redevelopment requiring a structural SCM pursuant to this Ordinance, the landowner, owner's agent or other responsible party of the site must execute an operations and maintenance agreement that shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the structural SCM. Until all property, sites, or lots served by a structural SCM is transferred, the original landowner or owner's agent shall be responsible for carrying out the provisions of the maintenance agreement.

1. The operations and maintenance agreement shall require the responsible party to maintain, repair and, if necessary, reconstruct the structural SCM, and shall state

the terms, conditions, and schedule of maintenance. In addition, it shall grant the right of entry to the Stormwater Administrator and designees to inspect and monitor the SCM. However, in no case shall the right of entry, of itself, confer an obligation on the Town of Lewisville to assume responsibility for the structural SCM.

2. The operations and maintenance agreement must be approved by the Stormwater Administrator referenced on the face of a final recorded plat (if applicable) and must be recorded with the Register of Deeds. A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within fourteen (14) calendar days following its recordation.

**B. Special Requirement for Homeowners' and Other Associations.** For all SCMs required by this selection that are, or are to be owned and maintained by a homeowners' association, property owners' association, or similar entity, ("Association") the operation and maintenance agreement (Agreement") required by subsection a above, shall comply with the following requirements, in addition to those in *Section 3-9.2(A) General* above.

1. **Continuous Operation and Maintenance.** The Agreement shall include acknowledgement that the Association shall continuously operate and maintain the stormwater control and management facilities.
2. **Escrow Account.**
  - (1) The Agreement shall include the establishment of an escrow account created and maintained by the Developer and Associate and then maintained by the Association.
  - (2) If SCMs are not performing adequately or as intended, or not properly maintained, the Town, in its sole discretion, may remedy the situation, and in such instances the Town shall be fully reimbursed from the escrow account.
  - (3) Both Developer and Association shall fund the escrow account, as follows:
    - i. Prior to plat recordation or issuance of construction permits, whichever first occurs, the Developer or Association shall establish and maintain a separate escrow account to establish, collect or retain funds for maintenance, repair, replacement and reconstruction costs for the stormwater control project's original cost of construction and shall be managed by the Association.

- ii. The amount of the escrow account shall not exceed ten percent (10%) of the original cost to construct the SCM as estimated by the sealed engineers.
  - iii. The Developer shall deposit into the escrow account no less than two percent (2%) of the engineer's estimated costs.
  - iv. The Association shall have a period of five (5) years from acceptance of the SCM to fully deposit the required escrow amount.
  - v. The Association shall annually by January 30 of each year verify to the Stormwater Administrator, Town Manager, and/or Finance Director the amount held in the escrow account.
3. **Town's Right of Entry.** The Agreement shall grant the Town a right of entry to inspect, monitor, maintain, repair, and reconstruct SCMs.
4. **Owner Covenants.** The Agreement shall specify that each landowner, by acceptance of a deed or other instrument conveying title to a lot or building site, whether or not it shall be so expressed therein, is deemed to covenant and agree to the following:
- (1) The payment to the Association (or to any person who may be designated by the Association to collect such monies) of a stormwater assessment, established and collected as hereinafter provided.
  - (2) The annual budget for the Association shall include the stormwater assessments as a line item, and the amount budgeted shall be sufficient to satisfy the total annual inspection, management, and maintenance budget for the SCM and any replacement account. The Association shall honor its obligations under the Agreement, and the Association shall assess the stormwater assessment. Each landowner shall be obligated to pay the stormwater assessment, and whether or not the annual budget is ratified by the members of the Association. No vote of the landowners is required to levy, collect, or foreclose a stormwater assessment. Stormwater assessments shall be paid to the Association at the same time annual assessments are due.
  - (3) Stormwater assessments shall be used as follows:

- i. Payment of the actual and estimated expenses incurred or anticipated to be incurred by the Association, including any reasonable reserve funds, under any stormwater operation and maintenance agreement, including maintenance of any SCM so that it performs as designed at all times and complies with the stormwater operations and maintenance agreement, the UDO, and all applicable regulations, rules, and directives of the Town;
  - ii. Payment of legal, engineering, and other professional fees incurred by the Association in carrying out its duties as set forth in this section, or in the stormwater operations and maintenance agreement for the SCM, and
  - iii. Payments to the Town pursuant to the operations and maintenance agreement.
- (4) If the stormwater assessment is not paid within forty-five (45) days after the payment due date, a lien upon the lot or building site may be established in accordance with G.S 47F-3.116(g). The amount of the lien shall be the amount of the stormwater assessment against the lot or building site, together with interest at a rate not to exceed the highest rate allowed by North Carolina law, computed from the date the delinquency first occurs, any late charges, and any costs of collection incurred, including reasonable attorney's fees. The claim of lien shall be filed in the manner provided in G.S. 47f-3-116(g), in the office of the Clerk of Superior Court in the county in which the lot of building site is located. A lien so established shall be continuing lien upon the lot or building site against which the stormwater assessment is made until paid in full.
- (5) A lien established in accordance with the subsection above, may be foreclosed in accordance with North Carolina law, or in any manner permitted by law. Neither the holder of a first mortgage or first deed of trust of record, nor a purchaser of a lot or building site who obtains title to the lot or building site as a result of a foreclosure of a first mortgage or first deed of trust, nor the heirs, successors, and assigns of such purchaser, shall be liable for stormwater assessments against the lot or building site which became due prior to the purchaser's acquisition of title to the lot or building site. Any such unpaid stormwater assessments shall be deemed a debt collectible from all landowners, including the purchaser.



- (6) Each stormwater assessment, together with late charges, interest, and the costs of collection thereof, including attorney's fees, shall also be the personal obligation or corporate obligation of each individual or entity who was the owner of a lot or building site at the time when the stormwater assessment first became due and payable. If more than one individual or entity held an ownership interest in the lot or building site at the time the stormwater assessment first became due, then each individual or entity shall be both jointly and severally liable. A landowner's personal obligation for payment of stormwater assessments shall not become the personal obligation of a subsequent owner the lot of building site unless expressly assumed by the subsequent owner, although the lien shall continue against the lot or building site until the amount due is paid.
- (7) The creation of the stormwater assessments is for the benefit of the Town, and the stormwater assessments may be collected and enforced by the Town as provided herein and in other provisions of the UDO.
- (8) Additional real property annexed to the Association shall be subjected to any existing operation and maintenance agreement upon the recording of the document annexing the additional property, either in the form of a new agreement and/or an amendment to an existing agreement (as determined by the Town) which shall be entered into between the Town and the Association to address the SCMs of the additional property.
- (9) There shall be dedicated for the benefit of each lot or building site, the common area, and each landowner:
- i. A perpetual, irrevocable and nonexclusive easement, right, and privilege to discharge and store surface water drainage from such lot or building site or common areas into the SCM situated in private drainage easements that serve the property within the development, regardless of where the SCM is located within the development; and
  - ii. A perpetual, irrevocable, and non-exclusive easement, right, and privilege to use and maintain SCMs, including the right of access to and from the private drainage easements and other portions of the development that is reasonably necessary to maintain the SCMs.

(10) Each Owner of any portion of the property served by the SCM is jointly and severally responsible for maintenance of the SCM, including payment of any unpaid ad valorem taxes, public assessments for improvements, and unsafe building and public nuisance abatement liens charged against the SCM, and including all interest charges thereon, together with the costs and expenses of collection incurred by the Town or other collecting entity, including court costs and reasonable attorney's fees actually incurred. Each owner of property served by the SCM has a right of contribution against all other owners of property served by the same SCM to the extent that the owner having such right of contribution pays more than such owner's pro rata share thereof.

(11) The Agreement shall include:

- i. A statement that Agreement shall not obligate the Town to maintain or repair any structural SCMs, and the Town shall not be liable to any person for the condition or operation of SMCs;
- ii. A statement that the Agreement shall not in any way diminish, limit, or restrict the right of the City to enforce any of its ordinances as authorized by law; and
- iii. A provision indemnifying and holding harmless the Town, its agents, contractors, and employees for any costs and injuries arising from or related to the structural SCM, unless the Town has agreed in writing to assume the maintenance responsibility for the SCM and has accepted dedication of any and all rights necessary to carry out that maintenance.

### **3-9.3. INSPECTION PROGRAM**

An inspections program may be instituted that describes the powers and responsibilities of the Stormwater Administrator, 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 enforcing 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 SCMs; and evaluating the condition of SCMs.

If the landowner or responsible party of any property refuses to permit such inspection, the Stormwater Administrator may 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 or authorized agent while carrying out his or her official duties.

### **3-9.4. PERFORMANCE SECURITY**

A. **General.** The Town of Lewisville requires the submittal of a maintenance performance security or bond with surety, cash escrow, letter of credit, or other acceptable legal arrangement, prior to issuance of a permit in order to ensure that SCMs are:

1. Installed by the permit holder as required by the approved stormwater management plan; and/or
2. Maintained by the owner as required by the operation and maintenance agreement.

B. **Amount.**

1. The amount of an installation performance security shall be the total estimated construction cost of the SCMs approved under the permit, plus twenty-five percent (25%).
2. The amount of a maintenance performance security shall be the present value of an annuity of perpetual duration based on a reasonable estimate of the annual cost of inspection, operation, and maintenance of the SCMs approved under the permit, at a discount rate that reflects the Town's cost of borrowing minus a reasonable estimate of long-term inflation.

C. **Default.**

1. If the owner fails to construct, maintain, repair, or if necessary, reconstruct any structural SCM in accordance with the applicable permit or operation and maintenance agreement, after submitting a request to the owner to comply with the permit or 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. 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.
2. In the event of default, the Town may recover from the applicant, owner, or successor the costs for enforcement actions including but not limited to court costs and attorney fees.

**D. Refund or Termination of Security.**

1. Within sixty (60) days of the final approval, the installation performance shall be refunded to the applicant or terminated, with the exception of any amount attributable to the cost (plus twenty-five percent) of landscaping installation and ongoing maintenance associated with the SCMs 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.

**3-9.5. NOTICE TO OWNERS**

- A. **Deed Recordation and Indications on Plat.** The applicable operations and maintenance agreement pertaining to every structural SCM shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement shall be recorded with the Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.
- B. **Signage.** Where appropriate in the determination of the Stormwater Administrator to assure compliance with this Ordinance, structural SCMs 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.

**3-9.6. RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES**

The owner of each structural SCM shall keep records of inspections, maintenance, and repairs for at least five (5) years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

**3-9.7. NUISANCE**

The owner of each stormwater SCM, whether structural or non-structural, shall maintain it so as not to create or result in a nuisance condition.

### **3.9.8. ILLICIT DISCHARGES**

A. **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:

1. Water line flushing;
2. Landscape irrigation;
3. Diverted stream flows;
4. Rising ground waters;
5. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
6. Uncontaminated pumped ground water;
7. Discharges from potable water sources;
8. Foundation drains;
9. Air conditioning condensation;
10. Irrigation water;
11. Springs;
12. Water from crawl space pumps;
13. Footing drains;
14. Lawn watering;
15. Individual residential car washing;
16. Flows from riparian habitats and wetlands;
17. Dechlorinated swimming pool discharges;
18. Street wash water; and

19. 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 storm sewer system shall be authorized by the Town of Lewisville.

- (1) Prohibited substances include but are not limited to: oil, anti-freeze, chemicals, animal waste (including pet waste), paints, garbage, and litter.

**B. Illicit Connections.**

1. Connections to a *stormwater conveyance* or *stormwater conveyance* system that allow the discharge of non-stormwater, other than the exclusions described in section (A) above, are unlawful. Prohibited connections include, but are not limited to: floor drains, waste water from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and waste water from septic systems.
2. Where such connections exist in violation of this section and 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.
3. Where it is determined that said connection:
  - (1) 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
  - (2) 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:
    - i. The quantity and complexity of the work,
    - ii. The consequences of delay,

- iii. The potential harm to the environment, to the public health, and to public and private property, and
  - iv. The cost of remedying the damage.
- C. **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.
- 1. 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 Stormwater Administrator and Lewisville 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.
- D. **Impeding Stormwater Conveyances.** No person shall cause or allow any *stormwater conveyance* or SCM to be impeded or diverted by any means, including but not limited to; stoppage or blockage of pipes; adding or placing materials of any kind to cause damming or erosion; or breaking, damaging or otherwise interfering with the function of any *stormwater conveyance* or SCM.
- E. **Nuisance.** Illicit discharges and illicit connections that exist within the Town of Lewisville limits 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.

### **3-9.9. VIOLATIONS AND ENFORCEMENT**

#### **A. General.**

- 1. **Authority to Enforce.** The provisions of this Ordinance shall be enforced by the Stormwater Administrator and designees, or any authorized agent of the Town of Lewisville.
- 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 landowner, agent of the owner, or other person or entity who, whether by act of omission or commission, violates any portion of this Ordinance shall be subject to the remedies, penalties, and/or enforcement actions described herein.

(1) For the purposes of this article, responsible person(s) shall include but not be limited to:

- i. The landowner;
- ii. Any tenant or occupant of the property;
- iii. Any person or entity who is responsible for stormwater controls or practices pursuant to a private agreement or public document;
- iv. Any person, who has control over, or responsibility for, the use development or redevelopment of the property;
- v. Any person or entity 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. **Remedies and Penalties.** The remedies and penalties provided for violations of this Ordinance, shall be cumulative and in addition to any other remedy provided by law, and may be exercised in any order.

1. **Remedies.**

(1) **Withholding of Certificate of Occupancy.** The Stormwater Administrator or designee may withhold a certificate of occupancy for the building or other improvements subject to a stormwater permit until the responsible person has taken remedial measures or has otherwise cured any violations.

- (2) **Disapproval of Subsequent Permits and Development Approvals.** As long as a violation of this Ordinance remains uncorrected, the Stormwater Administrator or designee may deny any permit or development approval, or authorization provided for by this Ordinance. Appeal of rulings by the Stormwater Administrator or his or her designee shall be heard by the Zoning Board of Adjustment.
  - (3) **Injunction, Abatements, Etc.** The Stormwater Administrator may initiate legal action in a court of law to abate or correct violation of this Ordinance. Any person violating this Ordinance shall be subject to the full range of equitable remedies provided in this Ordinance, General Statutes or other applicable law.
  - (4) **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 G.S. 160D, 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.
  - (5) **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 or has otherwise cured the violation or violations described therein.
2. **Civil Penalties.** In addition to violations and penalties described in *Section A.6-1.1 Civil Penalties*, the following actions may be initiated.
- (1) Violation of this Ordinance may subject the violator to a civil penalty in the nature of a debt if the violator does not pay the penalty within thirty (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 Lewisville is subject for violations of its Phase II Stormwater permit, but not less than one hundred dollars (\$100.00) per day for each 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 Stormwater Administrator shall investigate the complaint promptly.

2. **Inspection.** The Stormwater Administrator or authorized agent 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 not to exceed thirty (30) days. 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.
  - (1) The Stormwater Administrator may deliver the notice of violation and correction order personally, by the Forsyth County Sheriff's Department, 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.
  - (2) If a violation is not corrected within a reasonable period of time prior to the deadline, 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 sixty (60) days. The Stormwater Administrator may grant thirty-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.

## 3-10. VARIANCES AND APPEALS

### 3-10.1. ADMINISTRATIVE RELIEF AND VARIANCES

- A. **Administrative Review.** The Board shall hear and decide appeals from any decision or determination made by the Watershed Administrator in the enforcement of this ordinance.
- B. **Variances.** The Board shall have the power to authorize, in specific cases, minor variances from the terms of this Ordinance and may review major variance requests and make recommendations to the Environmental Management Commission regarding the same. In addition, the Town of Lewisville shall notify and allow thirty (30) days for all other local governments having jurisdiction in the designated watershed where the variance is being considered.
  1. Applications for a variance shall be made on the proper form obtainable from the Watershed Administrator and shall include the following information:

- (1) A site plan, drawn to a scale of at least one (1) inch to forty (40) feet, indicating the property lines of the parcel upon which the use is proposed; any existing or proposed structures; parking areas and other built-upon areas; and surface water drainage. The site plan shall be neatly drawn and indicate north point, name and address of person who prepared the plan, date of the original drawing, and an accurate record of any later revisions.
  - (2) A complete and detailed description of the proposed variance, together with any other pertinent information which the applicant feels would be helpful to the Board in considering the application.
  - (3) Evidence or proposed witness testimony that tends to support a finding that each of the factors listed below, are met.
2. The Watershed Administrator shall notify in writing each local government having jurisdiction in the watershed and the entity using the water supply for consumption. Such notice shall include a description of the variance being requested. Local governments receiving notice of the variance request may submit comments to the Watershed Administrator prior to a decision by the Board. Such comments shall become a part of the record of proceedings of the Board.
3. Before the Board may grant a variance, it shall make the following three findings, which shall be recorded in the permanent record of the case, and shall include the factual reasons on which they are based:
  - (1) There are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the Ordinance. In order to determine that there are practical difficulties or unnecessary hardships, the Board must find that the five following conditions exist:
    - i. If the applicant complies with the provisions of the Ordinance, the applicant can secure no reasonable return from, nor make reasonable use of, his property. Merely proving that the variance would permit a greater profit to be made from the property will not be considered adequate to justify the Board in granting an variance. Moreover, the Board shall consider whether the variance is the minimum possible deviation from the terms of the Ordinance that will make possible the reasonable use of his property.

- ii. The hardship results from the application of the Ordinance to the property rather than from other factors such as deed restrictions or other hardship.
  - iii. The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.
  - iv. The hardship is not the result of the actions of an applicant who knowingly or unknowingly violates the Ordinance, or who purchases the property after the effective date of the Ordinance, and then comes to the Board for relief.
  - v. The hardship is peculiar to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.
- (2) The variance is in harmony with the general purpose and intent of the Ordinance and preserves its spirit.
- (3) In the granting of the variance, the public safety and welfare have been assured and substantial justice has been done. The Board shall not grant a variance if it finds that doing so would in any respect impair the public health, safety, or general welfare.
4. In granting the variance, the Board may attach thereto conditions regarding the location, character, and other features of the proposed building, structure, or use that relate to the purpose and standards of this ordinance. If a variance for the construction, alteration or use of property is granted, such construction, alteration or use shall be in accordance with the approved site plan.
5. The Board shall refuse to hear an appeal or an application for a variance previously denied if it finds that there have been no substantial changes in conditions or circumstances bearing on the appeal or application.
6. A variance issued in accordance with this Section shall be considered a Watershed Protection Permit and shall expire if a Building Permit for such use is not obtained by the applicant within six (6) months from the date of the decision.
7. If the application calls for the granting of a major variance, and if the Board decides in favor of granting the variance, the Board shall prepare a preliminary record of the

hearing with all deliberate speed. The preliminary record of the hearing shall include:

- (1) The variance application;
- (2) The hearing notices;
- (3) The evidence presented;
- (4) Motions, offers of proof, objections to evidence, and rulings on them;
- (5) Proposed findings and exceptions;
- (6) The proposed decision, including all conditions proposed to be added to the permit.

8. The preliminary record shall be sent to the Environmental Management Commission for its review.

C. **Subdivision approval.** See *Section C.3-3.5 Subdivision Regulations in the Watershed Area*.

D. **Public Health.** No activity, situation, structure, or land use shall be allowed within the watershed which poses a threat to water quality and the public health, safety, and welfare.

E. Approval of all development greater than the low-density option.

### **3-10.2. APPEALS FROM THE STORMWATER AND WATERSHED REVIEW BOARD**

Appeals of denied variances must be filed with the Superior Court within thirty (30) days from the date the applicant receives constructive notice of the decision. Decisions by the Superior Court will be in the manner of certiorari.

## **3-11. AMENDMENTS**

A. **Amendments.** The Town Council may, on its own motion or on petition, amend, supplement, change or modify this Ordinance, according to the UDO text amendment procedures described in *Section A.4-3.2 Unified Development Ordinance Text Amendment*.



# C.4

## 4. EROSION CONTROL

### 4-1. GENERAL

This section is adopted for the purposes of:

- A. Regulating certain land disturbing activities to control accelerated erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property by sedimentation; and,
- B. Establishing procedures through which these purposes can be fulfilled.

### 4-2. DEFINITIONS

- A. Unless specifically defined below, words or phrases used in this Article shall be interpreted so as to give them the meaning they have in *Section A.2 Definitions* or in common usage and to give this Article its most reasonable application. The definitions of this section are specific only

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to this section. In the event of conflict with *Section A.2 Definitions* the definitions below shall control.

- B. Those definitions contained in the North Carolina Sedimentation Pollution Control Act of 1973, as amended, and adopted as part of the local Sediment and Erosion Control Ordinance, contained in *Section C.4-2 Definitions*.
1. **Accelerated Erosion.** Any increase over the rate of natural erosion as a result of land disturbing activity.
  2. **ACT. The North Carolina Sedimentation Pollution Control Act of 1973 and all rules** and orders adopted pursuant to it and amendments.
  3. **Adequate Erosion Control Measure, Structure or Device.** One which controls the soil material within the land area under responsible control of the person conducting the land disturbing activity.
  4. **Affiliate.** A person that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control of another person.
  5. **Being Conducted.** A land disturbing activity has been initiated, and permanent stabilization of the site has not been completed.
  6. **Borrow.** Fill material which is required for on-site construction and is obtained from other locations.
  7. **Buffer Zone.** The area of land adjacent to a lake or natural watercourse.
  8. **Commission.** The North Carolina Sedimentation Control Commission.
  9. **Completion of Construction or Development.** Completion of construction or development means that no further land disturbing activity is required on a phase of a project except that which is necessary for establishing a permanent ground cover.
  10. **Crop Land.** Any parcel of land which is used in the raising of agricultural, dairy, or forest products, livestock, poultry, or fur-bearing animals.
  11. **Department.** The North Carolina Department of Environmental Quality, Division of Energy, Mineral and Land Resources (NCDEQ/DEMLR)
  12. **Director.** The Director of the Division of Energy, Mineral and Land Resources of the Department of Environmental Quality (DEMLR).

13. **Discharge Point.** That point at which storm water runoff leaves a tract of land.
14. **District.** The Forsyth Soil and Water Conservation District created pursuant to G.S. Ch. 139.
15. **Energy Dissipator.** A structure or a shaped channel section with mechanical armoring placed at the outlet of pipes or conduits to receive and break down the energy from high velocity flow.
16. **Erosion.** The wearing away of land surface by the action of wind, water, gravity, or any combination thereof.
17. **Existing Grade.** The elevation among the ground surface of a site as recorded in topographic mapping at two (2) foot or four (4) foot contour intervals, on file in the office of the Planning Board, or as surveyed and mapped at a contour interval of not more than four (4) feet, by a licensed surveyor or a registered professional engineer.
18. **FSWCD District.** The Forsyth Soil and Water Conservation District created pursuant to G.S. Ch. 139.
19. **Ground Cover.** Any natural vegetative growth or other material which renders the soil surface stable against accelerated erosion.
20. **High Quality Waters.** Those classified as such in 15A NCAC 2B.0101(e)(5) - General Procedures, which is incorporated herein by reference to include further amendments pursuant to G.S. 150B-14(c).
21. **High Quality Water (HQW) Zones.** Areas that are within one mile of high-quality waters and drain to high quality waters.
22. **Lake or Natural Watercourse.** Any stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, and any reservoir, lake or pond, natural or impounded, in which sediment may be moved or carried in suspension, and which could be damaged by accumulation of sediment.
23. **Land Disturbing Activity.** Any use of the land by any person in residential, industrial, educational, institutional, or commercial development, highway and road construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to sedimentation.

24. **Local Government.** Any county, incorporated village, town, or city, or any combination of counties, incorporated villages, towns, and cities, acting through a joint program pursuant to the provisions of the Act.
25. **Natural Erosion.** The wearing away of the earth's surface by water, wind, or other natural agents under natural environmental conditions undisturbed by man.
26. **NCGO1.** NC Construction General Permit NCGO1 regulations. Permit establishes requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals and sanitary waste at the construction site that may cause impacts to water quality.
27. **Parent.** An affiliate that directly, or indirectly through one or more intermediaries, controls another person.
28. **Person.** Any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.
29. **Person Conducting Land Disturbing Activity.** Any person who may be held responsible for a violation unless expressly provided otherwise by this Chapter, the Act, or any order adopted pursuant to this Chapter or the Act.
30. **Person Responsible for The Violation.** Person responsible for the violation, as used in this Chapter, and G.S. 113A-64, means:
- (1) The developer or other person who has or holds himself/herself out as having financial or operational control over the land disturbing activity; and/or,
  - (2) The landowner or person in possession or control of the land when he/she has directly or indirectly allowed the land disturbing activity or has benefited from it or he/she has failed to comply with any provision of this Ordinance, the Act, or any order adopted pursuant to this Ordinance or the Act as it imposes a duty upon him.
31. **Phase of Grading.** One of two (2) types of grading, rough or fine.
32. **Plan.** An erosion and sedimentation control plan.
33. **Sediment.** Solid particulate matter, both mineral and organic, that has been or is being transported by water, air, gravity, or ice from its site of origin.

34. **Sedimentation.** The process by which sediment resulting from accelerated erosion has been or is being transported off the site of the land disturbing activity or into a lake or natural watercourse.
35. **Siltation.** Sediment resulting from accelerated erosion which is settleable or removable by properly designed, constructed, and maintained control measures; and which has been transported from its point of origin within the site of a land disturbing activity; and which has been deposited, or is in suspension in water.
36. **Storm Drainage Facilities.** The system of inlets, conduits, channels, ditches and appurtenances which serve to collect and convey stormwater through and from a given drainage area.
37. **Stormwater Runoff.** The surface flow of water resulting from precipitation in any form and occurring immediately after rainfall or melting.
38. **Subsidiary.** An affiliate that is directly, or indirectly through one or more intermediaries, controlled by another person.
39. **Ten-Year Storm.** A rainfall of an intensity that, based on historical data, is predicted by a method acceptable to the Approving Authority to be equaled or exceeded, on the average, once in ten years, and of a duration that will produce the maximum peak rate of runoff for the watershed of interest under average antecedent wetness conditions.
40. **Tract.** All contiguous land and bodies of water being disturbed or to be disturbed as a unit, regardless of ownership.
41. **Twenty-Five-Year Storm.** A rainfall of an intensity that, based on historical data, is predicted by a method acceptable to the Approving Authority to be equaled or exceeded, on the average, once in 25 years, and of a duration that will produce the maximum peak rate of runoff for the watershed of interest under average antecedent wetness conditions.
42. **Uncovered.** The removal of ground cover from, on, or above the soil surface.
43. **Undertaken.** The initiating of any activity, or phase of activity, which results or will result in a change in the ground cover or topography of a tract of land.
44. **Velocity.** The average velocity of flow through the cross section of the main channel at the peak flow of the storm of interest. The cross section of the main



channel shall be that area defined by the geometry of the channel plus the area of flow below the flood height defined by vertical lines at the main channel banks. Overload flows are not included for the purpose of computing velocity of flow.

45. **Waste.** Surplus materials resulting from on-site land disturbing activities and being disposed of at other locations.

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

## **4-3. ADMINISTRATION AND INTERPRETATION OF THIS SECTION OF THE ORDINANCE**

### **4-3.1. ADMINISTRATION**

The Director of the Winston-Salem/Forsyth County Erosion Control Division (in coordination with the Lewisville Planning Director and Public Works Director), herein referred to as “the Director” shall be responsible for the administration of this section of the Ordinance.

### **4-3.2. MINIMUM REQUIREMENTS; EXCEPTION**

In their interpretation and application, the provisions of this section of the Ordinance shall be held to be minimum requirements, except where they are expressly stated to be maximum requirements.

### **4-3.3. CONFLICTS WITH OTHER ORDINANCES AND LAWS**

Whenever any provisions of this section of the Ordinance and any other ordinance or law impose overlapping or contradictory regulations, the provision which is more restrictive or imposes higher standards or requirements shall govern.

### **4-3.4. LIABILITY FOR DAMAGES**

Failure of the Director to observe or recognize conditions which violate the intent and purpose of this section of the Ordinance or to deny a development permit applied for under this section of the Ordinance shall not relieve the property owner from responsibility

for the condition or damages resulting therefrom and shall not result in the city/county or its officers or agents being responsible for conditions or damages resulting therefrom.

#### **4-3.5. REMOVAL OF COVER AND CHANGE OF ELEVATIONS**

The holder of a development permit may remove existing cover or change existing elevations of the land only in accordance with the purposes of this section of the Ordinance and within the time schedules and methods for such changes set forth in this section of the Ordinance.

### **4-4. SCOPE AND EXCLUSIONS**

This section of the Ordinance shall apply to land disturbing activity undertaken by any persons within the following territorial jurisdictional areas:

- A. **Geographical Scope of Regulated Land-Disturbing Activity.** This ordinance shall apply to land-disturbing activity within the territorial jurisdiction of the Town of Lewisville and the unincorporated areas of Forsyth County.
- B. **Agricultural Activities.** Those undertaken on agricultural land for the production of plants and animals useful to humans, including but not limited to:
  - 1. Activities, including the production and activities relating or incidental to the production of crops, grains, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture undertaken on agricultural land for the production of plants and animals useful to man, including, but not limited to:
  - 2. Forage and sod crops, grain and feed crops, tobacco, cotton and peanuts;
  - 3. Dairy animals and dairy products;
  - 4. Poultry and poultry products;
  - 5. Livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats, including the breeding and grazing of all such animals;
  - 6. Bees and apiary products; and
  - 7. Fur producing animals,



8. Mulch, ornamental plants, and other horticultural products. For purposes of this section, “mulch” means substances composed primarily of plant remains or mixtures of such substances.
- C. **Forestry Activities.** Those undertaken on forest land for the production and harvesting of timber and timber products and which are conducted in accordance with Forest Practice Guidelines Related to Water Quality (best management practices) as adopted by the North Carolina Department of Agriculture and Consumer Services.
  1. If land disturbing activity undertaken on forest land for the production and harvesting of timber and timber products is not conducted in accordance with *Forest Practice Guidelines Related to Water Quality*, the provisions of this chapter shall apply to such activity and any related land disturbing activity on the tract;
- D. **Mining.** Activity undertaken by persons as defined in G.S. 113A-52(8) who are otherwise regulated by the provisions of the *Mining Act of 1971*, G.S. 74-46 through 74-68;
- E. **State Of North Carolina Jurisdiction.** Land disturbing activity over which the State has exclusive regulatory jurisdiction as provided in G.S. 113A-56; and,
- F. **Emergencies.** Any activity which is essential to protect human life during an emergency.
  1. Activities undertaken to restore the wetland functions of converted wetlands to provide compensatory mitigation to offset impacts permitted under Section 404 of the Clean Water Act.
  2. Activities undertaken pursuant to Natural Resources Conservation Service standards to restore the wetlands functions of converted wetlands as defined in Title 7 Code of Federal Regulations § 12.2.

## 4-5. GENERAL REQUIREMENTS

### 4-5.1. PLAN AND PERMIT REQUIRED

No person shall initiate any land disturbing activity upon a tract which requires a permit under *Section C.4-16 Permits* without having an erosion control plan approved by the Stormwater Director or designee and without having purchased the applicable permit through the Inspections Division office.

#### **4-5.2. PROTECTION OF PROPERTY**

Persons conducting land disturbing activity shall take all reasonable measures to protect all public and private property from damage caused by such activity, including protected flood hazard areas specified in *Section C.2 Flood Damage Prevention*.

#### **4-5.3. CONFLICTING PROVISIONS**

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

B. **Plan Approval Exceptions.** Notwithstanding the general requirement to obtain a Plan approval prior to undertaking land-disturbing activity, a Plan approval shall not be required for land-disturbing activity that does not exceed 20,000 square feet for single-family dwelling construction and not in a common plan of development or less than 10,000 square feet for any other non-exempt purpose. In determining the area, lands under single or diverse ownership being developed as a unit will be aggregated.

### **4-6. BASIC CONTROL OBJECTIVES**

An erosion and sedimentation control plan may be disapproved pursuant to *Section C.4-17 Erosion and Sedimentation Control Plans* if the plan fails to address the following control objectives:

- A. **Identify Critical Areas.** On-site areas which are subject to severe erosion and off-site areas which are especially vulnerable to damage from erosion and/or sedimentation are to be identified and receive special attention;
- B. **Limit Time of Exposure.** All land disturbing activity is to be planned and conducted to limit exposure to the shortest feasible time specified in G.S. 113A-57, the rules of this Ordinance, or as directed by the Stormwater Director or designees.
- C. **Limit Exposed Area.** All land disturbing activity is to be planned and conducted to minimize the size of the area to be exposed at any one time;
- D. **Control Surface Water.** Surface water runoff originating upgrate of exposed areas should be controlled to reduce erosion and sediment loss during the period of exposure;

- E. **Control Sedimentation.** All land disturbing activity is to be planned and conducted so as to prevent off-site sedimentation damage;
- F. **Manage Stormwater Runoff.** Plans shall be designed so that any increase in the velocity of stormwater runoff resulting from a land disturbing activity will not result in accelerated erosion of the receiving stormwater conveyance or at the point of discharge. Plans shall include measures to prevent accelerated erosion within the project boundary and at the point of discharge; and,
- G. **Protection Of Floodway and Flood Hazard Areas.** All land disturbing activity is to be planned and conducted so as to protect floodway and flood hazard areas in accordance with *Section C.2-3 Provisions for Flood Hazard Reduction*.

## 4-7. MANDATORY STANDARDS FOR LAND DISTURBING ACTIVITY

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

### A. Buffer Zone.

- 1. **Lake or Natural Watercourse.** No land disturbing activity during periods of construction or improvement to land shall be permitted in proximity to a lake or natural watercourse unless a buffer zone, as described in *Section C.3-5 Stream Buffers* is maintained along the margin of the watercourse of sufficient width to confine visible siltation within the twenty-five percent (25%) of the buffer zone nearest the land disturbing activity. This subdivision shall not apply to a land disturbing activity in connection with the construction of facilities to be located on, over or under a lake or natural watercourse.
- 2. **Width of Buffer Zone.** Unless otherwise provided, the width of a buffer zone, as described in *Section C.3-5 Stream Buffers* is measured horizontally from the edge of the water to the nearest edge of the disturbed area, with the twenty-five percent (25%) of the strip nearer the land disturbing activity containing natural or artificial means of confining visible siltation.

### B. Graded Slopes, Mechanically Stabilized Slopes and Fills

- 1. **Slope Specifications.**

- (1) No cut or fill greater than ten (10) vertical feet shall be made which creates a slope steeper than one and one-half (1.5) to one (1.5:1) unless approval is granted during plan review by the Stormwater Director or a designee.
  - (2) The angle for graded slopes and fills shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control devices or structures.
  - (3) The angle for graded slopes and fills must be demonstrated to be stable.
  - (4) Stable is the condition where the soil remains in its original configuration, with or without mechanical constraints.
  - (5) Mechanically stabilized slopes, including but not limited to riprap, cribs, timber, or masonry retaining walls, shall not exceed ten (10) feet in height without intervening terraces ten (10) feet in width with a maximum slope of three to one (3:1).
  - (6) In any event, slopes left exposed and such terraces will, within twenty-one (21) calendar days of completion of any phase of grading, be planted or otherwise provided with ground cover, devices, or structures sufficient to restrain erosion.
2. **Exceptions.** With prior approval of the Director, the ten (10) foot height limit for mechanically stabilized slopes may be increased for:
- (1) **Wing Walls and Earth Retaining Devices.** Wing walls allowing subgrade access and other earth retaining devices required for the structural support of buildings, bridges, dams, culverts, or similar structures; or
  - (2) **Stormwater Channels.** Mechanical stabilization required for engineered stormwater channels.
- C. **Fill Material.** Materials being used as fill shall be consistent with those described in 15A NCAC 13B .0562 unless the site is permitted by the Department's Division of Waste Management to operate as a landfill. Not all materials described in Section .0562 may be suitable to meet geotechnical considerations of the fill activity and should be evaluated accordingly. Unless a permit from the Department's Division of Waste Management to operate a landfill is on file for the official site, acceptable fill material shall be free of organic or other degradable brick in sizes exceeding twelve

(12) inches, and any materials which would cause the site to be regulated as a landfill by the State of North Carolina.

**D. Ground Cover and Revegetation Of Slopes.**

**1. Deadlines for Establishing Ground Cover.**

- (1) Whenever land disturbing activity is undertaken on a tract requiring a permit under *Section C.4-16 Permits*, the person conducting the land disturbing activity shall install such sedimentation and erosion control devices and practices as are sufficient to retain the sediment generated by the land disturbing activity within the boundaries of the tract during construction upon and development of said tract, and shall plant or otherwise provide a permanent ground cover and slope revegetation sufficient to restrain erosion after completion of construction or development.
- (2) Provisions for a ground cover sufficient to restrain erosion must be accomplished within twenty-one (21) calendar days of completion of any phase of grading.

**2. Revegetation of Slopes.**

- (1) All cut and fill slopes in excess of three (3) to one (3:1) slope and greater than ten (10) feet in height and intervening terraces required in *Section C.4-7(B)(1) Slope Specifications* shall be revegetated to provide plant cover over the entire area.
- (2) Said revegetation shall include a minimum of one tree per two hundred (200) square feet of surface area.
- (3) The trunk of any required tree shall be no closer than ten (10) feet from any other required tree.
- (4) Said trees may be a mixture of evergreen and deciduous, a minimum of twelve (12) inches high at planting with a minimum height at maturity of twenty-five (25) feet.

**3. Revegetation of Mechanically Stabilized Slopes.**

- (1) All mechanically stabilized slopes with intervening terraces required in *Section C.4-7(B) Graded Slopes, Mechanically Stabilized Slopes and Fills*, shall be revegetated to provide plant cover over the entire terrace area.

- (2) The trunk of any required tree shall be no further than ten (10) feet from any other required tree.
- (3) Said trees shall be a minimum of thirty-six (36) inches high at planting with a minimum height at maturity of ten (10) feet.
4. **Suggested Plant Materials For Revegetation of Slopes.** Plant materials for the revegetation of slopes shall be selected from the suggested plants in *Section B.3.3.9 Suggested Plant Materials List*.

**E. Floodway and Flood Hazard Areas.**

1. **Limits of Encroachment.** Cut or fill or other activities shall meet the limits of encroachment specified in *Section C.2-3 Provisions for Flood Hazard Reduction*.
2. **Designation in the Field.** The limit of grading and encroachment according to *Section C.2-3 Provisions for Flood Hazard Reduction*, consisting of a line delineating one-half the distance of this Ordinance, consisting of a line delineating one-half the distance between the outer edge of the floodway fringe and the outer edge of the floodway for the zoning lot in question, or other line provided by a certified engineering study in accordance with *Section C.2-3 Provisions for Flood Hazard Reduction* shall be designated in the field by the applicant or property owner by means of highly visible and durable plastic material or other means acceptable to the Director, prior to the issuance of the grading permit.
3. **Subdivisions.**
  - (1) For subdivisions, the designation of limits of grading or encroachment into the flood hazard area required in *Section C.2-3 Provisions for Flood Hazard Reduction* shall be provided by the property owner or developer for the entire zoning lot being subdivided prior to the issuance of grading permits and construction of streets or other improvements.
  - (2) The Director shall review the proposed encroachment prior to the issuance of permits for the development of individual lots created through the subdivision process.

- F. Top of Slope.** The top or toe of any slope steeper than a ratio of one and one-half horizontal units to one vertical unit (1.5:1) shall be no less than two (2) feet from any

neighboring property line or from any public right-of-way, parking lot, drive, or walk intended for public use, unless a retaining wall is built.

G. **Prior Plan Approval.** No Person shall initiate any land disturbing activity upon a tract requiring a permit for plans that exceeds 20,000 square feet for a single-family dwelling construction and/or located within a common plan of development (regardless of the size of land disturbance) or greater than 10,000 square feet for any other non-exempt purpose, unless, thirty (30) or more days prior to initiating the activity, an erosion and sedimentation control plan for such activity is filed with and approved by the Stormwater Director or a designee, the associated fees are paid, and the permit is issued by the Stormwater Director or a designee. Under G.S. 113A-60(a), the fee for land disturbance associated with single-family dwelling construction where the land disturbance is less than one acre per lot cannot exceed \$100.00 per lot.

H. **Prior to Land Disturbing Activities.**

1. **Notification.** No person may initiate a land disturbing activity before notifying the Director that issued the plan approval of the date that the land disturbing activity will begin.
2. **Preconstruction Conference.** When deemed necessary by the Director a preconstruction conference may be required.
3. **Display of Plan Approval.** A Plan approval issued under this ordinance shall be prominently displayed until all construction is complete, all temporary measures have been removed, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized. A copy of the approved plan shall be kept on file at the job site.

## 4-8. DESIGN AND PERFORMANCE STANDARDS

### 4-8.1. DESIGN STANDARDS

- A. Except as provided in this Ordinance, erosion and sedimentation control measures, structures and devices, shall be so planned, designed and constructed as to provide protection from the calculated maximum peak of runoff from the ten-year storm.



- B. Runoff rates shall be calculated using the procedures in the latest edition of the United States Department of Agriculture (USDA), Natural Resources Conservation Service's "National Engineering Field Handbook," or other acceptable calculation procedures.

#### **4-8.2. HIGH QUALITY WATER ZONES**

In high quality water zones, the following design standards shall apply:

**A. Uncovered Areas.**

1. Uncovered areas in high quality water zones shall be limited at any time to a maximum total area within the boundaries of the tract of twenty (20) acres.
2. Only the portion of the land disturbing activity within a high-quality water zone shall be governed by this section.
3. Larger areas may be uncovered within the boundaries of the tract with the written approval of the Director upon providing engineering justification with a construction sequence that considers phasing limiting exposure, weekly submitted self-inspection reports, and a more conservative design than the Twenty-Five (25) year storm.

- B. Maximum Peak Rate of Runoff Protection.** Erosion and sedimentation control measures, structures and devices within high quality water zones shall be so planned, designed and constructed to provide protection from the runoff of the twenty-five-year storm which produces the maximum peak rate of runoff as calculated according to the procedures in the United States Department of Agriculture Natural Resources Conservation Service's "National Engineering Field Handbook" or according to procedures adopted by any other agency of this state or the United States or any generally recognized organization or association.

**C. Sediment Basin.**

1. Sediment basins within high quality water zones shall be designed and constructed according to the following criteria:
  - (1) Use a surface withdrawal mechanism, except when the basin drainage area is less than 1.0 acre;
  - (2) Have a minimum of 1,800 cubic feet of storage area per acre of disturbed area;

- (3) Have a minimum surface area of 325 square feet per cfs of the Twenty-five (25) Year Storm (Q25) peak flow;
  - (4) Have a minimum dewatering time of 48 hours;
  - (5) Incorporate three (3) baffles, unless the basin is less than twenty (20) feet in length, in which case two (2) baffles shall be sufficient.
2. Upon a written request of the applicant, the Director may allow alternative design and control measures in lieu of meeting the conditions required in subsections 1-5 above if the applicant demonstrates that meeting all of those conditions will result in design or operational hardships and that the alternative measures will provide an equal or more effective level of erosion and sediment control on the site. Alternative measures may include quicker application of ground cover, use of sediment flocculants, and use of enhanced ground cover practices.

**D. Grade.**

1. Newly constructed open channels in high quality water zones shall be designed and constructed with side slopes no steeper than two (2) horizontal to one vertical (2:1) if a vegetative cover is used for stabilization, unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other acceptable ditch liners.
2. In any event, the angle for side slopes shall be sufficient to restrain accelerated erosion.

## **4-9. STORMWATER OUTLET PROTECTION**

### **4-9.1. POST CONSTRUCTION VELOCITY**

- A. Stream banks and channels downstream from any land disturbing activity shall be protected from increased degradation by accelerated erosion caused by increased velocity of runoff from the land disturbing activity. Persons shall conduct land disturbing activity so that the post construction velocity of the ten-year storm runoff in the receiving watercourse to the discharge point does not exceed the greater of:
1. **Maximum Permissible Velocities.** The velocity established by *Table C.4.1 Maximum Permissible Velocities for Stormwater Discharges*; or,

2. **Velocity Prior to Development.** The velocity of the ten-year storm runoff in the receiving watercourse prior to development.
- B. If conditions in *Section C.4-9.1 Post Construction Velocity* cannot be met, then the receiving watercourse to and including the discharge point shall be designed and constructed to withstand the expected velocity anywhere the velocity exceeds the *prior to development* velocity by ten percent (10%).

#### **4-9.2. ACCEPTABLE MANAGEMENT MEASURES**

- A. Measures applied alone or in combination to satisfy the intent of this section are acceptable if there are no objectionable secondary consequences.
- B. It is recognized that the management of stormwater runoff to minimize or control downstream channel and bank erosion is a developing technology.
- C. Innovative techniques and ideas will be considered and may be used when shown to have the potential to produce successful results. Alternatives include, but are not limited to:
  1. **Infiltration.** Avoid increases in surface runoff volume and velocity by including measures to promote infiltration to compensate for increased runoff from areas rendered impervious.
  2. **Vegetated or Roughened Swales and Waterways.** Avoid increases in stormwater discharge velocities by using vegetated or roughened swales and waterways in lieu of closed drains and high velocity paved sections.
  3. **Energy Dissipators.** Provide energy dissipators at outlets of storm drainage facilities to reduce flow velocities to the point of discharge. These may range from simple riprapped sections to complex structures.
  4. **Cross Sections; Erosion Resistant Lining.** Protect watercourses subject to accelerated erosion by improving cross sections and/or providing erosion-resistant lining.
  5. **Improvement of Receiving Devices or Watercourse.** Upgrade or replace the receiving device structure, or watercourse such that it will receive and conduct the flow to a point where it is no longer subject to degradation from the increased rate of flow or increased velocity.

### **4-9.3. EXCEPTIONS**

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

### **4-9.4. MAXIMUM PERMISSIBLE VELOCITIES**

The following is a table for maximum permissible velocities for stormwater discharges:

Table C.4.1 Maximum Permissible Velocities for Stormwater Discharges

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

Source - Adopted from recommendation by Special Committee on Irrigation Research, American Society of Civil Engineers, 1926, for channels with straight alignment. For sinuous channels, multiply velocity by 0.95 for slightly sinuous, by 0.9 for moderately sinuous channels, and by 0.8 for highly sinuous channels.

## 4-10. BORROW AND WASTE AREAS

- A. When the person conducting the land disturbing activity is also the person conducting the borrow or waste disposal activity, areas from which borrow is obtained and which are not regulated by the provisions of the *Mining Act of 1971*; and waste areas for surplus materials other than landfills regulated by the Department's Division of Waste Management, shall be considered as part of the land disturbing activity where the borrow material is being used or from which the waste material originated.
- B. When the person conducting the land disturbing activity is not the person obtaining the borrow and/or disposing of waste, these areas shall be considered a separate land disturbing activity.

## 4-11. ACCESS AND HAUL ROADS

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

## 4-12. OPERATIONS IN LAKES OR NATURAL WATERCOURSES

- A. Land disturbing activity in connection with construction in, on, over, or under a lake or natural watercourse shall be planned and conducted in such a manner as to minimize the extent and duration of disturbance of the stream channel.
- B. The relocation of a stream, where relocation is an essential part of the proposed activity, shall be planned and executed so as to minimize changes in the stream flow characteristics.
- C. The United States Army Corps of Engineers (USACE) and North Carolina Division of Water Resources (NCDWR) shall be notified of any planned operation in lakes or natural watercourses, including their adjacent wetlands, for possible issuance of Section 404 and Section 401 or other applicable permits.

## 4-13. RESPONSIBILITY FOR MAINTENANCE

- A. During the development of a site, the person conducting the land disturbing activity shall install and maintain all temporary and permanent erosion and sedimentation

control measures as required by the requirements of the approved plan or according to the provisions of this Ordinance, as may be amended.

- B. After site development, the landowner or person in possession or control of the land shall install and/or maintain all necessary permanent erosion and sediment control measures, except those measures installed within a road or street right-of-way or easement accepted for maintenance by a governmental agency.

## **4-14. ADDITIONAL PROTECTIVE MEASURES**

Whenever the Director determines that accelerated erosion and sedimentation is occurring as a result of land disturbing activity, despite the installation of protective practices, the person conducting the land disturbing activity shall be required to and shall take additional protective action necessary to achieve compliance with the conditions specified in this Section.

## **4-15. EXISTING UNCOVERED AREAS**

### **4-15.1. SITES SUBJECT TO CONTINUED ACCELERATED EROSION**

All uncovered areas which exist on the effective date of this section of the Ordinance as a result of land disturbing activity on a tract requiring a permit under this Article, which are subject to continued accelerated erosion, and which are causing off-site damage from sedimentation, shall be provided with a groundcover or other protective measures, structures, or devices sufficient to restrain accelerated erosion and control off-site sedimentation.

### **4-15.2. NOTICE OF VIOLATION**

- A. The Director will serve upon the landowner or other person in possession or control of the land a written notice of violation by registered or certified mail, return receipt requested, or other means reasonably calculated to give actual notice.
- B. The notice will set forth the measures needed to comply with the Act, this Ordinance or a rule or order adopted or issued pursuant to the Act by the Town and will state the time within which such measures must be completed.

- C. In determining the measures required and the time allowed for compliance, the Director shall take into consideration the economic feasibility, technology, and quantity of work required, and shall set reasonable and attainable time limits of compliance.

#### **4-15.3. EROSION CONTROL PLAN**

The Director reserves the right to require preparation and approval of an erosion control plan in any instance where extensive control measures are anticipated to be required.

#### **4-15.4. PLANNED RESERVOIR**

This rule shall not require groundcover on cleared land forming the future basin of a planned reservoir.

### **4-16. PERMITS**

#### **4-16.1. REQUIRED; EXCEPTIONS**

- A. No person shall undertake any land disturbing activity subject to this Ordinance without first obtaining a permit from the Director (for permits issued by the Town) or other permits issued by other associations, including the State as may be required, except that no permit shall be required for any land disturbing activity:
1. That does not exceed 20,000 square feet for a single-family dwelling that is not included in a common plan or development or less than 10,000 square feet for any other non-exempt purposes.

#### **4-16.2. FEE**

The fee for permits required by this section shall be determined by the Lewisville Town Council and described in the current schedule of fees. When permits are requested for incremental grading in sections, the fee established by this section shall apply to each permit. The fee for sites where grading begins before a permit is obtained shall be equal to double the normal permit fee.



### **4-16.3. DISPLAY OF PERMIT**

A development permit issued under this section of the Ordinance shall be prominently displayed on the property until a protected area has been established.

### **4-16.4. LAPSING AND REINSTATEMENT OF PERMIT**

- A. Approved grading plans shall become void thirty (30) days after the applicant has received constructive written notice. Any future action on expired grading plans requires new plans to be submitted and approved.
- B. A development permit shall lapse at the end of six (6) months, unless it is reissued by the Director or Stormwater Administrator. When the development permit lapses and the corrective action, as set forth in the development plan, has not been completed, the developer or owner shall be in violation of this Ordinance.
- C. The Director or Stormwater Administrator may, upon written request, reissue a lapsed permit, to be effective for a period not to exceed sixty (60) working days from the date of re-issuance after review of the original development plan and on-site inspection of the state of the work. The request for re-issuance shall include the reasons for incompleteness of the work.

## **4-17. EROSION AND SEDIMENTATION CONTROL PLANS**

### **4-17.1. PREPARATION**

- A. A Plan shall be prepared for all land-disturbing activities subject to this ordinance whenever the proposed activity will disturb more than 20,000 square feet for single-family dwelling construction or any single-family dwelling construction (regardless of disturbance size) located within a common plan of development or greater than 10,000 square feet for any other non-exempt purpose of all other types of development activities. The Plan shall be filed with the Town of Lewisville; a copy shall be simultaneously submitted to the Forsyth County Soil and Water Conservation District at least thirty (30) days prior to commencement of the proposed activity.

**4-17.2. COPIES; REVISED PLANS**

- A. Persons conducting a land disturbing activity shall file three (3) copies of the erosion control plan with the Director at least thirty (30) days prior to beginning such activity.
- B. One copy of the erosion control plan will be retained by the Director, one copy will be forwarded to the Forsyth Soil and Water Conservation District, and one copy shall be kept at the job site until all construction is complete, all permanent sedimentation and erosion control measures are installed, and the site has been stabilized.
- C. After approving the plan, if the Director, either upon review of such plan or on inspection of the job site, determines that a significant risk of accelerated erosion or off-site sedimentation exists, he/she will require a revised plan.
- D. Pending the preparation of the revised plan, work shall cease or shall continue under conditions outlined by the Director.
- E. If following commencement of a land disturbing activity pursuant to an approved plan, it is determined that the plan is inadequate to meet the requirements of this Ordinance, the Director may require any revision of the plan that is necessary to comply with this Ordinance.

**4-17.3 STATEMENT OF FINANCIAL RESPONSIBILITY**

- A. Erosion control plans may be disapproved unless accompanied by an authorized statement of financial responsibility and documentation of property ownership.
- B. This statement shall be signed by the person financially responsible for the land disturbing activity or his/her attorney-in-fact.
- C. The statement shall include the mailing and street addresses of the principal place of business of the person financially responsible and of the owner of the land or his/her registered agents.
- D. If the person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving notice of compliance or noncompliance with the plan, this Ordinance, or rules or orders adopted or issued pursuant to this Ordinance.
- E. If the applicant is not the owner of the land to be disturbed and the anticipated land-disturbing activity involves the construction of utility lines for the provision of water,

sewer, gas, telecommunications, or electrical service, the draft erosion and sedimentation control plan may be submitted without the written consent of the owner of the land, so long as the owner of the land has been provided prior notice of the project.

#### **4-17.4. REVIEW AND RECOMMENDATIONS**

The Forsyth Soil and Water Conservation District, within twenty (20) days of receipt of any plan, or within such additional time as may be prescribed by the Director shall review such plan and submit its comments and recommendations to the Director. Failure of the soil and water conservation district to submit its comments and recommendations within twenty (20) days or within the prescribed additional time will not delay final action on the plan.

#### **4-17.5. NOTICE OF APPROVAL, REJECTION, ETC.**

The Director will review each complete plan submitted to him/her and within thirty (30) days of receipt thereof will notify the person submitting the plan that it has been approved, approved with modifications, approved with performance reservations, or disapproved. Failure to approve or disapprove a complete erosion and sedimentation control plan within thirty (30) days of receipt shall be deemed approval. Denial of a plan must specifically state in writing the reasons for denial. The Director must approve or deny a revised plan within fifteen (15) days of receipt, or it is deemed to be approved. If, following commencement of a land disturbing activity pursuant to an approved plan, the Director determines that the plan is inadequate to meet the requirements of this section of the Ordinance, the Director may require such revisions as are necessary to comply with this section of the Ordinance. The approval of an Erosion Control Plan is conditioned on the applicant's compliance with Federal and State water quality laws, regulations, and rules. A copy of the Erosion Control Plan for any land disturbing activity that involves the utilization of ditches for the purpose of de-watering or lowering the water table must be forwarded to the Director of the Division of Water Quality.

#### **4-17.6. ENVIRONMENTAL DOCUMENT**

Any plan submitted for a land disturbing activity for which an environmental document is required by the North Carolina Environmental Policy Act (G.S. 113A-1, et seq.) shall be deemed incomplete until a complete environmental document is available for review. The

Director shall notify the person submitting the plan that the thirty (30) day time limit for review of the plan pursuant to *Section C.4-17.5 Notice of Approval, Rejection, Etc.* shall not begin until a complete environmental document is available for review.

#### **4-17.7. PREPARATION, FILING AND CONTENTS OF PLAN**

- A. It shall be the responsibility of the property owner or developer or his/her agent to apply to the Director, on a form furnished by the Director, for any development permit required by this section of the Ordinance.
- B. No application for a development permit shall be accepted unless accompanied by a development plan including the information specified in this section.
- C. Unless the Director deems such seal and signature to be unnecessary due to the simplicity of the site situation and the limited nature of the erosion control measures required in the development plan, the development plan shall be prepared by, and shall bear the seal and signature of, a licensed Professional Engineer, Architect, Landscape Architect or Land Surveyor to the extent permitted by State law, for single-family dwelling construction exceeding one (1) acre of disturbed area or a disturbed area exceeding ten thousand (10,000) square feet for any other non-exempt purpose, and shall include maps of the site, at a scale not smaller than one inch represents one hundred (100) feet (1" to 100'), showing:
  - 1. **Standard Documentation.** Standard documentation, available in part from the offices of the Tax Assessor or the Register of Deeds, which shall include the outer boundaries of the site, any interior property lines or easements, the relation of the site to the nearest or abutting street intersections, scale and north arrow, total acreage, ownership, address, and tax block and lot numbers of the property;
  - 2. **Existing Conditions.** Existing conditions, available in part from the Planning Board, which shall include:
    - (1) Structures, roads, driveways, and contours at intervals of not more than four (4) feet, with elevations referred to mean sea level;
    - (2) Wooded areas, any intermittent or permanent springs;
    - (3) Any streams or other bodies of surface water; and
    - (4) The location, dimensions, and type of any existing constructed drainageway to, from, or within the site.

3. **Proposed Development Plans.** The proposed development plan shall contain architectural and engineering drawings, maps, assumptions, calculations, and narrative statement as needed to adequately describe the proposed development of the tract and the measures planned to comply with the requirements of this Ordinance.
- (1) Plan content may vary to meet the needs of specific site requirements. Detailed guidelines for Plan preparation may be obtained from the Town of Lewisville, upon request.
- (2) The plan shall also include:
- i. Any structures to be established or removed, any streets, roadways, driveways, parking or loading areas, easements or rights-of-way to be added or changed;
  - ii. Any changes of ditches, catch basins, terraces, or other devices;
  - iii. Any non-vegetative protection or support, including paving, riprap, walls, or other structures or surfaces;
  - iv. Areas of vegetation to be removed, location of trees to be retained and proposed vegetative cover; and
  - v. Excepting applications for subdivision approval only, location of sewage treatment facilities, including septic tank and drain field, if public or community sewerage is not available.
4. **Other.** A statement, referenced to the map(s) if appropriate, as to whether the site will be developed in sections and any profiles, earth movement computations, drainage calculations, grading specifications, temporary and permanent protective measures, including planting, or other explanatory data necessary for the interpretation of the site preparation, protection and development plan.

#### **4-17.8. DISAPPROVAL**

- A. An erosion control plan, or draft plans if implementation of the plan would result in a violation of the rules adopted by the Environmental Management Commission to protect riparian buffers along surface waters, may be disapproved upon a finding that an applicant, or a parent, subsidiary, or other affiliate of the applicant:

1. **Without An Approved Plan; Violation.** Is conducting or has conducted land disturbing activity without an approved plan, or has received notice of violation of a plan previously approved by the Commission or a local government pursuant to the Act and has not complied with the notice within the time specified in the notice;
  2. **Civil Penalty.** Has failed to pay a civil penalty assessed pursuant to the Act or a local ordinance adopted pursuant to the Act which is due and for which no appeal is pending;
  3. **Misdemeanor or Criminal Provision.** Has been convicted of a misdemeanor pursuant to G.S. 113A-64(b) or any criminal provision of a local ordinance adopted pursuant to the Act; or,
  4. **Failed to Comply.** Has failed to substantially comply with State rules or local ordinances or regulations adopted pursuant to the Act.
- B. For purposes of this section, an applicant's record may be considered for only two (2) years prior to the application date.

#### **4-17.9. TRANSFER OF PLANS**

The town administering an erosion and sedimentation control program may transfer an erosion and sedimentation control plan approved pursuant to this section without the consent of the plan holder to a successor-owner of the property on which the permitted activity is occurring or will occur as provided in this subsection.

- A. The town may transfer a plan if all of the following conditions are met:
1. The successor-owner of the property submits to the local government a written request for the transfer of the plan and an authorized statement of financial responsibility and documentation of property ownership.
  2. The town finds all of the following:
    - (1) The plan holder is one of the following:
      - i. A natural person who is deceased.
      - ii. A partnership, limited liability corporation, corporation, or any other business association that has been dissolved.
      - iii. A Person who has been lawfully and finally divested of title to the property on which the permitted activity is occurring or will occur.

- iv. A Person who has sold the property on which the permitted activity is occurring or will occur.
  - (2) The successor-owner holds title to the property on which the permitted activity is occurring or will occur.
  - (3) The successor-owner is the sole claimant of the right to engage in the permitted activity.
  - (4) There will be no substantial change in the permitted activity.
- B. The plan holder shall comply with all terms and conditions of the plan until such time as the plan is transferred.
- C. The successor-owner shall comply with all terms and conditions of the plan once the plan has been transferred.
- D. Notwithstanding changes to law made after the original issuance of the plan, the town may not impose new or different terms and conditions in the plan without the prior express consent of the successor-owner. Nothing in this subsection shall prevent the town from requiring a revised plan pursuant to G.S. 113A-54.1(b).

#### **4-17.10. AMENDMENT OF PLAN**

Application for amendment of an erosion control plan in written and/or graphic form may be made at any time under the same conditions as the original application. Until such time as said amendment is approved by the Director, the land disturbing activities shall not proceed except in accordance with the erosion control plan as originally approved.

#### **4-17.11. SELF-INSPECTIONS**

The landowner, the financially responsible party, or the landowner's or the financially responsible party's agent shall perform an inspection of the area covered by the plan after each phase of the plan has been completed and after establishment of temporary ground cover in accordance with G.S. 113A-57(2). In addition, weekly and rain-event self-inspections are required by federal regulations, that are implemented through the NPDES Construction General Permit No. NCG 010000. The Person who performs the inspection shall maintain and make available a record of the inspection at the site of the land-disturbing activity. The record shall set out any significant deviation from the approved erosion control plan, identify any measures that may be required to correct the deviation,



and document the completion of those measures. The record shall be maintained until permanent ground cover has been established as required by the approved erosion and sedimentation control plan. The inspections required by this subsection shall be in addition to inspections required by G.S. 113A-61.1.

Where inspections are required by G.S. 113A-54.1(e), the following apply:

- A. The inspection shall be performed during or after each of the following phases of the plan;
  - 1. Initial installation of erosion and sediment control measures;
  - 2. Clearing and grubbing of existing ground cover;
  - 3. Completion of any grading that requires ground cover;
  - 4. Completion of all land-disturbing activity, construction, or development, including permanent ground cover establishment and removal of all temporary measures; and
  - 5. Transfer of ownership or control of the tract of land where the erosion and sedimentation control plan has been approved and work has begun. The new owner or person in control shall conduct and document inspections until the project is permanently stabilized as set forth in Sub-Item (iii) of this Item.
- B. Documentation of self-inspections performed under Item (1) of this ordinance shall include:
  - 1. Visual verification of ground stabilization and other erosion control measures and practices as called for in the approved plan;
  - 2. Verification by measurement of settling basins, temporary construction entrances, energy dissipators, and traps.
  - 3. The name, address, organization affiliation, telephone number, and signature of the Person conducting the inspection and the date of the inspection shall be included, whether on a copy of the approved erosion and sedimentation control plan or an inspection report. A template for an example of an inspection and monitoring report is provided on the DEMLR website at: <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>. Any relevant licenses and certifications may also be included. Any documentation of inspections that occur on a copy of the approved

- erosion and sedimentation control plan shall occur on a single copy of the plan and that plan shall be made available on the site.
4. A record of any significant deviation from any erosion or sedimentation control measure from that on the approved plan. For the purpose of this ordinance, a "significant deviation" means an omission, alternation, or relocation of an erosion or sedimentation control measure that prevents it from performing as intended. The record shall include measures required to correct the significant deviation, along with documentation of when those measures were taken. Deviations from the approved plan may also be recommended to enhance the intended performance of the sedimentation and erosion control measures.
  5. Except as may be required under federal law, rule, or regulation, no periodic self-inspections or rain gauge installation is required on individual residential lots where less than one acre is disturbed on each lot.

## **4-18. COMPLIANCE WITH PLAN REQUIREMENTS**

### **4-18.1. VIOLATION**

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

### **4-18.2. NO BUILDING PERMITS**

No building permits shall be issued until the required temporary erosion control measures are installed in accordance with the approved development plan.

### **4-18.3. NO CERTIFICATE OF OCCUPANCY**

No certificate of occupancy shall be issued or granted where required under applicable subdivision or zoning regulations or other laws and ordinances unless and until the required erosion control measures at the site have been completed in accordance with a valid permit.

## **4-19. INSPECTIONS AND INVESTIGATIONS**

### **4-19.1. PERIODIC INSPECTION**

- A. The Stormwater Administrator and designees may periodically inspect sites of land disturbing activity to determine compliance with the Act, these standards, or rules or orders adopted or issued pursuant to these standards, and to determine whether the activity is being conducted in accordance with an approved plan, and whether the measures required in the plan are effectively controlling the erosion and sediment resulting from the land disturbing activity.
- B. Notice of the right to inspect shall be included in the notification of plan approval.

### **4-19.2. NOTICE OF VIOLATION**

- A. If, through inspection, it is determined that a person engaged in land disturbing activity has failed to comply with the Act, these standards, or rules or orders adopted or issued pursuant to this chapter, or has failed to comply with an approved plan, a notice of violation shall be served upon that person by registered or certified mail or other means reasonably calculated to give actual notice.
- B. The notice shall specify a date by which the person must comply with the Act, or this Ordinance, or rules or orders adopted pursuant to this Ordinance, and inform the person of the actions that need to be taken to comply with the Act, this Ordinance or rules or orders adopted pursuant to this Ordinance.
- C. The notice will set forth the measures needed to comply and will state the time within which such measures must be completed.
- D. In determining the measures required and the time allowed for compliance, the Local Government serving notice shall take into consideration the economic feasibility, technology, and quantity of work required, and shall set reasonable and attainable time limits of compliance.
- E. Any person who fails to comply within the time specified is subject to additional civil and criminal penalties for a continuing violation as provided in G.S. 113A-64 and this Ordinance.

- F. If the person engaged in the land-disturbing activity has not received a previous notice of violation under *Section C.4-21.2 Notice of Violation and Appeal to the Commission*, the local government shall deliver the notice of violation in person and shall offer assistance in developing corrective measures.
- G. Assistance may be provided by referral to a technical assistance program in the North Carolina Department of Environmental Quality, referral to a cooperative extension program, or by the provision of written materials, such as North Carolina Department of Environmental Quality guidance documents.
- H. If the Town of Lewisville is unable to deliver the notice of violation, in person, within fifteen (15) days following discovery of the violation, the notice of violation may be served in the manner prescribed for service of process by Section 1A-1, Rule 4, North Carolina General Statutes, and shall include information on how to obtain assistance in developing corrective measures.

#### **4-19.3. CONDUCTING INVESTIGATIONS**

- A. The Director or their designee shall have the power to conduct such investigations as he may reasonably deem necessary to carry out his duties as described in this section of the Ordinance, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigating and inspecting the sites of any land disturbing activity.
- B. No person shall refuse entry or access to any authorized representative or agent of the Town who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such representative while in the process of carrying out his official duties.
- C. An administrative search warrant may be obtained as provided in *Section 1-10 of the Lewisville, North Carolina Code of Ordinances* and other applicable laws.

#### **4-19.4. WRITTEN STATEMENTS OR REPORTS UNDER OATH**

The Director shall also have the power to require written statements, or the filing of reports under oath, with respect to pertinent questions relating to land disturbing activity.

#### **4-19.5. OBSTRUCTING AGENT OR LOCAL GOVERNMENT**

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

#### **4-19.6. NOTIFICATION TO DIRECTOR OF INSPECTIONS**

The holder of a development permit shall notify the Director when grading is to begin and again when the graded area has been protected.

### **4-20. PENALTIES**

#### **4-20.1. CIVIL PENALTIES**

It is not intended that any provision of this section of the Ordinance shall restrict or impair the right of any private or public person to bring any legal or equitable action for redress against nuisances, hazards, or injuries to persons or property.

##### **A. Procedure.**

1. Any person who violates any of the provisions of this section of the Ordinance, or rules, or orders adopted or issued pursuant to this section of the Ordinance, or who initiates or continues a land disturbing activity for which an erosion control plan is required, except in accordance with the terms, conditions, and provisions of an approved plan, shall be subject to a civil penalty of not more than five thousand dollars (\$5,000.00) except that the penalty for failure to submit an erosion control plan shall be as provided in *Section C.4-16.2 Fee*.
  - (1) Each day of continuing violation shall constitute a separate violation.
  - (2) A person may be assessed an initial civil penalty of up to five thousand dollars (\$5,000.00) for the first day the violation is detected, and daily civil penalties, thereafter, for every day the violation continues.
2. Notwithstanding any of the foregoing, if the person has not previously been assessed any civil penalty under Section 113A-64(a) of the North Carolina General Statutes or *Section C.4-20.1 Civil Penalties*, for any prior violation, and has since abated any continuing environmental damage resulting from the current violations, within one hundred eighty (180) days from the date of the notice of violation, the

maximum cumulative total civil penalty assessed under *Section C.4-20.1 Civil Penalties* for all violations associated with the land-disturbing activity for which the erosion and sedimentation control plan is required will be twenty-five thousand dollars (\$25,000.00).

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

**B. Amount and Enforcement.**

1. The Town Manager shall determine the amount of the civil penalty to be assessed under this section and shall provide notice to the person in violation directing the violator to either pay the assessment or contest the assessment by a written demand for a hearing within thirty (30) days after receipt of the notice of assessment.
2. The notice shall set forth in detail:
  - (1) The civil penalty amount;
  - (2) A description of the violation for which the penalty has been imposed
  - (3) The basis for assessment;

- (4) The option available to the violator to request a remission of the civil penalty, under Section 113A-64.2 of the North Carolina General Statutes, and *Section C.4-22.1(E) Requests for Remission of Civil Penalties*;
  - (5) The date by which the violator must make the remission request regarding the particular penalty;
  - (6) If the violator has not previously been assessed any civil penalty under Section 113A-64(a) of the North Carolina General Statutes or *Section C.4-22.1 Civil Penalties*, for any prior violation, the date by which the violator must abate continuing environmental damage resulting from the violation, in order to qualify for the twenty-five thousand dollar (\$25,000.00) cap on cumulative total civil penalty under *Section C.4-20.1(A) Procedure*.
3. In determining the amount of the penalty, the Director of Inspections shall consider the degree and extent of harm caused by the violation, the cost of rectifying the damage, the amount of money the violator saved by noncompliance, whether the violation was committed willfully, and the prior record of the violator in complying or failing to comply with this Ordinance.
4. Notice of the assessment shall be by registered or certified mail or other means reasonably calculated to give actual notice.
5. If payment is not made within thirty (30) days after it is “due,” as that term is used below, or if demand for hearing to contest the assessment is not received or equitable settlement reached within thirty (30) days after demand for payment is made, the matter shall be referred to the Town/County Attorney for institution of a civil action in the name of the Town of Lewisville Superior Court where the violation occurred or the violator’s residence or principal place of business is located, for recovery of penalty.
6. Any sums recovered shall be used to carry out the purposes and requirements of this chapter.
7. Such actions must be filed within three (3) years of the date the final decision was served on the violator.
8. As assessment that is not contested is due when the violator is served with a notice of assessment.



9. As assessment that is contested due at the conclusion of the administrative or judicial review of the assessment, as the case may be.

**C. Contest of Assessment.**

1. A hearing on a civil penalty shall be conducted by the Stormwater Administrator or designees within thirty (30) days after the date of receipt of the written demand for hearing.
2. The Director of Inspections shall render his decision on the civil penalty at the conclusion of the hearing.
3. Appeal from the final decision of the Stormwater Administrator or designees shall be to the Superior Court of Forsyth County where the violation occurred.

**D. Disbursal of Penalties.** Civil penalties collected pursuant to this Ordinance shall be used or disbursed as directed by G.S. 113A-64(a)(5).

**E. Requests for Remission of Civil Penalties.**

1. A request for remission of a civil penalty imposed under Section 113A-64 of the North Carolina General Statutes or *Section C.4-20.1 Civil Penalties*, may be filed with the North Carolina Sedimentation Control Commission within sixty (60) days of receipt of the notice of assessment.
2. A remission request must be accompanied by a waiver of the right to a contested case hearing, pursuant to Chapter 150B, of the North Carolina General Statutes and a stipulation of the facts on which the assessment was based.
3. The following factors shall be considered by the North Carolina Sedimentation Control Commission in determining whether a civil penalty remission request will be approved:
  - (1) Whether one (1) or more of the civil penalty assessment factors in Section 113A-64(a)(3) of the North Carolina General Statutes were wrongly applied, to the detriment of the applicant;
  - (2) Whether the applicant promptly abated continuing environmental damage resulting from the violation;
  - (3) Whether the violation was inadvertent or the result of an accident;

- (4) Whether the petitioner has been assessed civil penalties for any previous violations;
  - (5) Whether payment of the civil penalty will prevent payment for necessary remedial actions or would otherwise create a significant financial hardship and
  - (6) The property tax value of the applicant's property, upon which the violation occurred, excluding the value of any structures located on the property.
4. The applicant shall have the burden of establishing that the civil penalty imposes financial hardship and of providing supporting information and documentation.
  5. The North Carolina Sedimentation Control Commission may remit the entire amount of the penalty only when the petitioner has not been assessed civil penalties for previous violations and payment of the current civil penalty will prevent payment for necessary remedial actions.
  6. The North Carolina Sedimentation Control Commission will not impose a penalty under Section 113A-64.2 of the North Carolina General Statutes that exceeds the civil penalty imposed by the North Carolina Department of Environmental Quality.

#### **4-20.2. CRIMINAL PENALTIES**

Any person who knowingly or willfully violates any provision of this section of the Ordinance, or rule or order adopted or issued pursuant to this section of the Ordinance, or who knowingly or willfully initiates or continues a land disturbing activity for which an erosion control plan is required except in accordance with the terms, conditions, and provisions of an approved plan, shall be guilty of a Class 2 misdemeanor which may include a fine not to exceed five thousand dollars (\$5,000.00).

### **4-21. APPEALS BY PERMIT APPLICANT OR HOLDER**

#### **4-21.1. GENERAL**

- A. Except as provided in *Section C.4-21.2 Notification and Appeal to the Commission*, the appeal of a disapproval or approval with modifications of a plan shall be governed by the following provisions:
  1. **Appeal to the Zoning Board of Adjustment.**

- (1) Appeal from any decision of the Director shall be to the Zoning Board of Adjustment.
- (2) The applicant or holder of a development permit shall have fifteen (15) calendar days from the date of written denial or revocation of a permit, or from denial of an extension of or an amendment to a permit, within which to appeal.
- (3) An appeal shall be perfected by filing written notice, with reasons therefor, with the Planning Director within the time period prescribed.

## **2. Zoning Board of Adjustment Action.**

- (1) The Zoning Board of Adjustment may affirm, reverse or modify the decision of the Director according to the quasi-judicial procedures detail in *Section A.4 Procedures*, based upon a finding or determination as to whether the applicant or permit holder has met the requirements and conditions for the issuance of a development permit, extension thereof or an amendment thereto, as specified in this section of the Ordinance.
- (2) The Zoning Board of Adjustment may impose further requirements or conditions upon the issuance, extension or amendment of a permit as may reasonably be deemed necessary to accomplish the purposes declared in this section of the Ordinance.
- (3) Pending appeal, grading at the site shall proceed only in accordance with a currently effective development permit and plan issued and approved by the Director of Inspections.

3. **Appeal from Zoning Board of Adjustment.** Appeal from the Zoning Board of Adjustment shall be to the North Carolina Sedimentation Control Commission as provided in G.S. 113A-61(c) and 15 NCAC 4B .0081(b), with notice of appeal filed within fifteen (15) days following issuance of the decision.

## **4-21.2. NOTIFICATION AND APPEAL TO THE COMMISSION**

- A. In the event that an erosion control plan is disapproved pursuant to *Section C.4-17.8 Disapproval*, the Stormwater Director or a designee shall notify the Director of the Division of Land Resources of such disapproval within ten (10) days.
- B. The stormwater Director or designee shall advise the applicant and the Director in writing as to the specific reasons that the plan was disapproved.

The applicant may appeal the Stormwater Director or designee's disapproval of the plan pursuant to *Section C.4-17.8 Disapproval*, directly to the Commission.

## **4-22. INJUNCTIVE RELIEF**

### **4-22.1. VIOLATION OF THE ORDINANCE**

Whenever the Stormwater Administrator has reasonable cause to believe that any person is violating or threatening to violate this Ordinance, or any rule or order adopted or issued pursuant to this Ordinance, or any term, condition, or provision of an approved erosion control plan, he/she may, either before or after the institution of any other action or proceeding authorized by this Ordinance, institute a civil action in the name of the Town of Lewisville/Forsyth County for injunctive relief to restrain the violation or threatened violation. The action shall be brought in the Superior Court of Forsyth County.

### **4-22.2. ORDER TO ABATE VIOLATION**

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

## **4-23. PERMITS AND DEVELOPMENT PLANS PRESENTLY IN EFFECT TO REMAIN IN EFFECT**

All permits and development plans approved by the Director of Inspections and other corrective measures required pursuant to the previous erosion control ordinance shall remain in full force and effect as if they had been approved pursuant to this section of the Ordinance; provided, however, any renewals or amendments of the permits and development plans previously approved shall be controlled by this section of the Ordinance.

## **4-24. RESTORATION AFTER NONCOMPLIANCE**

- A. The Director of Inspections may require a person who engaged in a land disturbing activity and failed to retain sediment generated by the activity, as required by G.S. 113A-57(3), to restore the waters and land affected by the failure so as to minimize the detrimental effects of the resulting pollution by sedimentation.
- B. The authority is in addition to any other civil or criminal penalty or injunctive relief authorized under this Ordinance.

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## 5. DAM BREACH HAZARD AREAS

### 5-1 GENERAL

#### 5-1.1 PURPOSE OF REGULATION

Dam breach hazard areas are those areas located downstream of certain dams designated by the United States Soil Conservation Service, which may be flooded in case of a dam breach. The risks to life and property in such areas are similar to those in flood hazard areas, although the frequency of the risk may be less and the predictability of the risk is considerably less.

#### 5-1.2 MAPS

Dam breach hazard areas subject to regulation shall be only those areas identified on *Dam Breach Hazard Area Maps* adopted by the Planning Board and maintained in the office of the Planning Board. The North Carolina Office of the United States Soil Conservation Service has been requested to map the areas in Forsyth County which may be susceptible to damage from dam breaches. Administration and

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enforcement of the development standards in *Section C.5 Dam Breach Hazard Areas* will be deferred until completion of the maps.

## **5-2. DEVELOPMENT STANDARDS**

The development standards applicable to floodways, in accordance with *Section C.2-3 Provisions for Flood Hazard Reduction*, shall apply to dam breach hazard areas.

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