

ARTICLE 5: ENVIRONMENTAL REGULATIONS

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ARTICLE 5 ENVIRONMENTAL REGULATIONS

Amended June 6, 2022

5-1 Stormwater Management

The general standards contained in this Section shall apply throughout the planning jurisdiction. However, developments located within watershed protection overlay districts shall comply with the applicable additional stormwater management requirements of Section 5-1. All residential development disturbing one acre or more and all nonresidential development disturbing one-half acre or more shall prepare stormwater management plans in accordance with subsection F below. All residential and non-residential development disturbing one-half acre or more shall prepare stormwater management plans in accordance with section 5-2 in addition to compliance with section 5-2, 5-3, and 5-4.

Amended June 7, 2021; June 6, 2022

A. Natural Drainage System Utilized to Extent Feasible

1. To the extent practicable, all development shall conform to the natural contours of the land and natural and pre-existing man-made drainage ways shall remain undisturbed.
2. To the extent practicable, lot boundaries shall be made to coincide with natural and pre-existing man-made drainage ways within subdivisions to avoid the creation of lots that can be built upon only by altering such drainage ways.

B. Developments Must Drain Properly

1. All developments shall be provided with a drainage system that is adequate to prevent the undue retention of surface water on the development site. Surface water shall not be regarded as unduly retained if:
 - (a) The retention results from a technique, practice or device deliberately installed as part of an approved sedimentation or stormwater runoff control plan; or
 - (b) The retention is not substantially different in location or degree than that experienced by the development site in its pre-development stage, unless such retention presents a danger to health or safety.
2. No surface water may be channeled or directed into a sanitary sewer.
3. Whenever practicable, the drainage system of a development shall coordinate with and connect to the drainage systems or drainage ways on surrounding properties or streets.

4. All developments shall be constructed and maintained so that adjacent properties are not unreasonably burdened with surface waters as a result of such developments. More specifically:
 - (a) No development may be constructed or maintained so that such development unreasonably impedes the natural flow of water from higher adjacent properties across such development, thereby unreasonably causing substantial damage to such higher adjacent properties; and
 - (b) No development may be constructed or maintained so that surface waters from such development are unreasonably collected and channeled onto lower adjacent properties at such locations or at such volumes as to cause substantial damage to such lower adjacent properties.

C. Design Standards

New and extended stormwater systems shall be designed to the specifications maintained by the City of Mebane City Engineer and calculated to accommodate ten-year design frequency stormwater runoff. Additional requirements may be required based upon the City Engineer's professional judgement and the City's Storm Sewer Design Manual.

D. Construction of Systems by Developers; Responsibility for Maintenance

Storm drainage systems shall be constructed by developers as part of the public improvements of new subdivisions.

1. A site plan illustrating all drainage facilities shall be submitted to the City Engineer for approval prior to construction.
2. Street storm drains which discharge water onto lots within a development shall be extended by the developer to a point fifteen feet beyond any structure on or to be constructed on said subdivision lots.
3. The City maintenance responsibility for storm drainage systems is restricted to structures and piping within street rights-of-way and within dedicated public storm sewer easements.
4. Owners of private property containing stormwater channels, ditches, and drainageways in private drainage easements or private storm sewer easements shall be responsible for maintaining them open, clean, and properly functioning as parts of the stormwater runoff system. A property owners association may be established to assume this responsibility.

E. Installation and Maintenance by Private Property Owners

Private property owners are permitted to install storm piping in runoff channels, in accordance with specification and calculations of pipe and structure size approved by the City Engineer.

1. Property owners with stormwater runoff systems on their property will be responsible for maintaining these channels, systems and structures open

to accommodate the free flow of stormwater away from the street right-of-way.

2. Culverts under driveway connections to public streets shall be maintained clear of obstructions and capable of freely carrying stormwater flow by the private property owner owning and utilizing the driveway.

F. Stormwater Management Plans

1. All development disturbing one acre or more shall comply with the stormwater management provisions of the Mebane Post Construction Runoff Ordinance. (**Note:** *developments within a Watershed Overlay District shall comply with the stormwater control requirements of Section 5-2, E*).
2. Structural stormwater controls must meet the following criteria:
 - (a) Remove an 85% average annual amount of Total Suspended Solids (TSS).
 - (b) For wet detention ponds draw down the treatment volume no faster than 48 hours, but no slower than 120 hours.
 - (c) Discharge the storage volume at a rate equal or less than the pre-development discharge rate for the 1-year, 24-hour storm.
 - (d) Meet the General Engineering Design Criteria set forth in 15A NCAC 02H.1008(c).
3. Setbacks for impervious surfaces from receiving waters shall be as follows:
 - (a) All new impervious or partially pervious surfaces, except for streets, paths, and water-dependent structures, shall be located at least 30 feet landward of all perennial and intermittent surface waters.
4. In addition to all other requirements specified above, all development activities that are located within a NC Environmental Management Commission-designated Critical Area of a Water Supply Watershed shall be limited to a maximum impervious surface density of 24 percent.
5. Stormwater management plans shall be certified by a North Carolina registered stormwater professional to be in conformity with the North Carolina Stormwater Best Management Practices Manual. Stormwater management plans shall contain the information required in Appendix D for stormwater management plans.
6. A stormwater management and maintenance plan shall be submitted to the Zoning Administrator prior to the approval of a final subdivision plat. The plan shall identify the party or entity responsible for ownership and maintenance activities. Plans for the operation and maintenance of

stormwater control structures shall comply with the requirements of Section 5-2, E, 5 (b) and Section 5-2, E, 6. Recorded deed restrictions shall be required to ensure management and maintenance consistent with approved stormwater management plans. The operation and maintenance agreement shall require the owner of each stormwater control structure to submit a maintenance inspection report on each stormwater control structure annually to the Zoning Administrator.

7. All engineered stormwater control structures shall be designed by a North Carolina registered professional with qualifications appropriate for the type of system required; these registered professionals are defined as professional engineers, landscape architects, to the extent that the General Statutes, Chapter 89A allow, and land surveyors, to the extent that the design represents incidental drainage within a subdivision, as provided in General Statutes 89(C)-3(7).
8. All new stormwater control structures shall be conditioned on the posting, in accordance with provisions of Section 5-2, E, 6, of adequate financial assurance for the purpose of maintenance, repairs or reconstruction necessary for adequate performance of the stormwater control structures.
9. The storm drainage system shall follow existing topography as nearly as practical, shall divert stormwater away from surface waters, and shall incorporate stormwater Best Management Practices to minimize adverse water quality impacts. The banks of ditches shall be immediately seeded upon grading and installation of utilities and the ditch itself shall be improved with appropriate vegetative cover to retard erosion.
10. No surface water shall be channeled into a sanitary sewer.

5-2 Phase 2 Stormwater New Development Regulations

Amended June 7, 2021

A. General Provisions

Development and redevelopment alter the hydrologic response of local watersheds and increases stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;

These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology which are harmful to public health and safety as well as to the natural environment; and

These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from development sites.

Further, the Federal Water Pollution Control Act of 1972 ("Clean Water Act") and federal Phase II Stormwater Rules promulgated under it, as well as rules of the North Carolina Environmental Management Commission promulgated in response to federal Phase II

requirements, compel certain urbanized areas, including this jurisdiction, to adopt the minimum stormwater controls such as those included in this section.

Therefore, the Mebane City Council establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge.

B. Purpose

1. General

The purpose of this section is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-development stormwater runoff and nonpoint and point source pollution associated with new development and redevelopment. It has been determined that proper management of construction-related and post-development stormwater runoff will minimize damage to public and private property and infrastructure, safeguard the public health, safety, and general welfare, and protect water and aquatic resources. This section is intended to comply with North Carolina General Statute 143-214.7 and rules promulgated by the Environmental Management Commission thereunder; Session Law 2006-246; Chapter 160A, §§ 174, 185 as amended.

2. Specific

This section seeks to meet its general purpose through the following specific objectives and means:

1. Establishing decision-making processes for development that protects the integrity of watersheds and preserve the health of water resources;
2. Requiring that new development and redevelopment maintain the pre-development hydrologic response in their post-development state as nearly as practicable for the applicable design storm to reduce flooding, streambank erosion, nonpoint and point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;
3. Establishing minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
4. Establishing design and review criteria for the construction, function, and use of structural stormwater BMPs that may be used to meet the minimum post-development stormwater management standards;
5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers, and other conservation areas to the maximum extent practicable;

6. Establishing provisions for the long-term responsibility for and maintenance of structural and nonstructural stormwater BMPs to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;
7. Establishing administrative procedures for the submission, review, approval and disapproval of stormwater management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.

C. Applicability and Jurisdiction

1. General

Beginning with and subsequent to its effective date, this section shall be applicable to all development and redevelopment, including, but not limited to, site plan applications, and subdivision applications within the corporate limits and extraterritorial jurisdiction of the City of Mebane, unless exempt pursuant to Subsection (B) of this Section, Exemptions.

2. Exemptions

Development that cumulatively disturbs less than one acre and is not part of a larger common plan of development or sale is exempt from the provisions of this section.

Redevelopment that does not result in a net increase in built-upon area and that provides greater or equal stormwater control than the previous development, and is not part of a larger common plan of development.

Development and redevelopment that disturb less than one acre are not exempt if such activities are part of a larger common plan of development or sale, even though multiple, separate or distinct activities take place at different times on different schedules.

Activities that are exempt from permit requirements of Section 404 of the federal Clean Water Act, as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this section.

(a) Transitional Provisions and Exemptions

(i) Final Approvals, Complete Applications

All development and redevelopment projects for which complete and full applications were submitted and approved by the City of Mebane prior to the effective date of this original section and which remain valid, unexpired, unrevoked and not otherwise terminated at the time of development or redevelopment shall be exempt from complying with all provisions of this section dealing with the control and/or management of post-construction runoff, but shall be required to comply with all other applicable provisions included in the project approval documents.

A phased development plan shall be deemed approved prior to the effective data of this section if it has been approved by all necessary government units,

it remains valid, unexpired, unrevoked and not otherwise terminated, and it shows:

- For the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project and a subdivision plan that has been approved.
- For any subsequent phase of development, sufficient detail so that implementation of the requirements of this section to that phase of development would require a material change in that phase of the plan.

(b) Violations Continue

Any violation of provisions existing on the effective date of this section shall continue to be a violation under this section and be subject to penalties and enforcement under this section unless the use, development, construction, or other activity complies with the provisions of this section.

(c) No Development or Redevelopment Until Compliance and Permit

No development or redevelopment shall occur except in compliance with the provisions of this section or unless exempted. No development for which a permit is required pursuant to this section shall occur except in compliance with the provisions, conditions, and limitations of the permit.

(d) Stormwater Map

The provisions of this section shall apply within the areas designated on the map titled "Stormwater Map of City of Mebane, North Carolina" ("the Stormwater Map"), which is adopted simultaneously herewith. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this section.

The Stormwater Map shall be kept on file by the Stormwater Administrator and shall be updated to take into account changes in the land area covered by this section and the geographic location of all structural BMPs permitted under this section. In the event of a dispute, the applicability of this section to a particular area of land or BMP shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary sections.

D. Interpretation

1. Meaning and Intent

All provisions, terms, phrases, and expressions contained in this section shall be construed according to the general and specific purposes set forth in Section 104, Purpose. If a different or more specific meaning is given for a term defined elsewhere in The City of Mebane's code of ordinances, the meaning and application of the term in this section shall control for purposes of application of this section.

2. Text Controls in Event of Conflict

In the event of a conflict or inconsistency between the text of this section and any heading, caption, figure, illustration, table, or map, the text shall control.

3. Authority for Interpretation

The Stormwater Administrator has authority to determine the interpretation of this section. Any person may request an interpretation by submitting a written request to the Stormwater Administrator who shall respond in writing within 30 days. The Stormwater Administrator shall keep on file a record of all written interpretations of this section.

4. References to Statutes, Regulations, and Documents

Whenever reference is made to a resolution, section, statute, regulation, manual (including the Stormwater BMP Design Manual), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

5. Computation of Time

The time in which an act is to be done shall be computed by excluding the first day and including the last day. If a deadline or required date of action falls on a Saturday, Sunday, or holiday observed by the City of Mebane, the deadline or required date of action shall be the next day that is not a Saturday, Sunday or holiday observed by the City of Mebane. References to days are calendar days unless otherwise stated.

6. Delegation of Authority

Any act authorized by this Section to be carried out by the Stormwater Administrator of the City of Mebane may be carried out by his or her designee.

7. Usage

8. Mandatory and Discretionary Terms

The words "shall," "must," and "will" are mandatory in nature, establishing an obligation or duty to comply with the particular provision. The words "may" and "should" are permissive in nature.

8. Conjunctions

Unless the context clearly indicates the contrary, conjunctions shall be interpreted as follows: The word "and" indicates that all connected items, conditions, provisions and events apply. The word "or" indicates that one or more of the connected items, conditions, provisions or events apply.

9. Tense, Plurals, and Gender

Words used in the present tense include the future tense. Words used in the singular number include the plural number and the plural number includes the singular number, unless the context of the particular usage clearly indicates otherwise. Words used in the masculine gender include the feminine gender, and vice versa.

10. Measurement and Computation

Lot area refers to the amount of horizontal land area contained inside the lot lines of a lot or site.

E. Stormwater BMP Design Manual

1. Reference to the Manual of Stormwater Best Management Practices (BMP).

The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the latest published edition or revision of the North Carolina Department of Environmental Quality's Stormwater Design Manual as the basis for the City's Stormwater BMP Design Manual (referred to herein as the Stormwater BMP Design Manual). The City's Stormwater BMP Design Manual will serve as the basis for decisions about stormwater permits and about the design, implementation and performance of structural and non-structural stormwater BMPs.

The Stormwater BMP Design Manual includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Phase II laws.

2. Relationship of Stormwater BMP Design Manual to Other Laws and Regulations

If the specifications or guidelines of the Stormwater BMP Design Manual are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the Stormwater BMP Design Manual.

3. Changes to Standards and Specifications

If the standards, specifications, guidelines, policies, criteria, or other information in the Stormwater BMP Design Manual are amended subsequent to the submittal of an application for approval pursuant to this section but prior to approval, the new information shall control and shall be utilized in reviewing the application and in implementing this section with regard to the application.

F. Relationship to Other Laws, Regulations and Private Agreements

1. Conflict of Laws

This section is not intended to modify or repeal any other section, rule, regulation or other provision of law. The requirements of this section are in addition to the requirements of any other section, rule, regulation or other provision of law. Where any provision of this section imposes restrictions different from those imposed by any other section, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare shall control.

2. Private Agreements

This section is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this section are more restrictive or impose higher standards or requirements than such easement, covenant, or other private agreement, the requirements of this section shall govern. Nothing in this section shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this section. In no case shall City of Mebane be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

G. Severability

If the provisions of any section, subsection, paragraph, subdivision or clause of this section shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this section.

H. Effective Date

1. Effective Date

This Section shall take effect on July 1, 2007.

I. Administration and Procedures

J. Review and Decision-Making Entities

1. Stormwater Administrator

A. Designation

Unless otherwise designated by the Mebane City Council, the Stormwater Administer shall be the City Manager or his designee. The Stormwater Administer shall administer and enforce this section.

2. Powers and Duties

In addition to the powers and duties that may be conferred by other provisions of the City of Mebane code and other laws, the Stormwater Administrator shall have the following powers and duties under this section:

- (a) To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this section.
- (b) To make determinations and render interpretations of this section.
- (c) To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the Mebane City Council on applications for development or redevelopment approvals.
- (d) To enforce the provisions of this section in accordance with its enforcement provisions.
- (e) To maintain records, maps, forms and other official materials as relate to the adoption, amendment, enforcement, and administration of this section.
- (f) To provide expertise and technical assistance to the Mebane City Council, upon request.
- (g) To designate appropriate other person(s) who shall carry out the powers and duties of the Stormwater Administrator.
- (h) To take any other action necessary to administer the provisions of this section.

3. Review Procedures

(a) Required; Must Apply for Permit

A stormwater permit is required for all development and redevelopment unless exempt pursuant to this section. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.

(b) Effect of Permit

A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including structural BMPs and elements of site design for stormwater management other than structural BMPs.

The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the development or redevelopment site consistent with the requirements of this section, whether the approach consists of structural BMPs or other techniques such as low-impact or low-density design. The permit does not continue in existence indefinitely after the completion of the project; rather,

compliance after project construction is assured by the maintenance provisions of this section.

(c) Authority to File Applications

All applications required pursuant to this Code shall be submitted to the Stormwater Administrator by the land owner or the land owner's duly authorized agent.

(d) Establishment of Application Requirements, Schedule, and Fees

(i) Application Contents and Form

The Stormwater Administrator shall establish requirements for the content and form of all applications and shall amend and update those requirements from time to time. At a minimum, the stormwater permit application shall describe in detail how post-development stormwater runoff will be controlled and managed, the design of all stormwater facilities and practices, and how the proposed project will meet the requirements of this section.

(ii) Submission Schedule

The Stormwater Administrator shall establish a submission schedule for applications. The schedule shall establish deadlines by which complete applications must be submitted for the purpose of ensuring that there is adequate time to review applications, and that the various stages in the review process are accommodated.

(iii) Permit Review Fees

The Mebane City Council shall establish permit review fees as well as policies regarding refund of any fees upon withdrawal of an application, and may amend and update the fees and policies from time to time.

(iv) Administrative Manual

For applications required under this Code, the Stormwater Administrator shall compile the application requirements, submission schedule, fee schedule, a copy of this section, and information on how and where to obtain the Stormwater BMP Design Manual in an Administrative Manual, which shall be made available to the public.

(e) Submittal of Complete Application

Applications shall be submitted to the Stormwater Administrator pursuant to the application submittal schedule in the form established by the Stormwater Administrator, along with the appropriate fee established pursuant to this section.

An application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this section, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application. However, the submittal of an incomplete application shall not suffice to meet a deadline contained in the submission schedule established above.

(f) Review

Within 15 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 section.

(g) Approval

If the Stormwater Administrator finds that the application complies with the standards of this section, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this section. The conditions shall be included as part of the approval.

(h) Fails to Comply

If the Stormwater Administrator finds that the application fails to comply with the standards of this section, 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.

(i) Revision and Subsequent Review

A complete revised application shall be reviewed by the Stormwater Administrator within 15 working days after its re-submittal and shall be approved, approved with conditions or disapproved.

If a revised application is not re-submitted within 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 for a new submittal.

One re-submittal of a revised application may be submitted without payment of an additional permit review fee. Any re-submittal after the first re-submittal shall be accompanied by a permit review fee additional fee, as established pursuant to this section.

4. Applications for Approval

(a) Concept Plan and Consultation Meeting

Before a stormwater management permit application is deemed complete, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed development project. This consultation meeting should take place at the time of the sketch or preliminary plan of subdivision or other early step in the development process.

The purpose of this meeting is to discuss the post-construction stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering is commenced. Watershed Overlay Districts and other relevant resource protection plans should be consulted in the discussion of the concept plan.

To accomplish this goal the following information should be included in the concept plan, which should be submitted in advance of the meeting:

(i) Existing Conditions / Proposed Site Plans

Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (if available); boundaries of existing predominant vegetation, proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.

Existing and proposed topography shall be shown at two-foot contour intervals on the tract to be developed and a minimum of 100-feet beyond the property lines. All contour information shall be based on mean sea level and accurate to within one-half foot, The benchmark, with its description and the datum, shall be clearly shown on the plan.

(ii) Natural Resources Inventory

A written or graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers 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.

(iii) 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 any proposed stream channel modifications, such as bridge or culvert crossings.

(b) Stormwater Management Permit Application

The stormwater management permit application shall detail how post-development stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this section, including the section on Standards. All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area of competence.

The plans shall contain a signed and sealed statement certifying that the design of all stormwater management facilities and practices will control and treat the runoff generated from one inch of rainfall over the total

project area, that the designs and plans are sufficient to comply with applicable standards and policies found in the Stormwater BMP Design Manual, and that the designs and plans ensure compliance with this section.

The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator. Incomplete submittals shall be treated pursuant to other portions of this ordinance.

(a) **As-Built Plans and Final Approval**

Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify, under seal, that the completed project is in accordance with the approved stormwater management plans and designs and with the requirements of this section. The applicant shall submit all of the information required in the As-Built submittal checklist established by the Stormwater Administrator. As-built submittals shall be certified by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect. A final inspection and approval by the Stormwater Administrator shall occur before the release of any performance securities.

(b) **Other Permits**

No certificate of compliance or occupancy shall be issued by the City of Mebane without final as-built plans and a final inspection and approval by the Stormwater Administrator.

5. Approvals

(a) **Effect of Approval**

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

6. Time Limit/Expiration

An approved plan shall become null and void if the applicant has failed to make substantial progress on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan.

In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

7. Appeals

(a) Right of Appeal

Any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this section made by the Stormwater Administrator may file an appeal to the Mebane City Council within 30 days.

(b) Filing of Appeal and Procedures

Appeals shall be taken within the specified time period by filing a notice of appeal and specifying the grounds for appeal on forms provided by City of Mebane. The Stormwater Administrator shall forthwith transmit to the Mebane City Council all documents constituting the record on which the decision appealed from was taken.

The hearing conducted by the Mebane City Council shall be conducted in the nature of a quasi-judicial proceeding with all findings of fact supported by competent, material evidence, in accordance with N.C.G.S. 160D-406.

(c) Review by Superior Court

The decision of the Mebane City Council shall be subject to Superior Court review by proceedings in the nature of certiorari, as provided in NCGS 160D, Article 14. Petition for review by the Superior Court shall be filed with the Clerk of Superior Court within thirty (30) days after the latter of the following:

(i) The decision of the Mebane City Council is filed; or

(ii) A written copy of the decision is delivered to every aggrieved party who has filed a written request for such copy with the Mebane City Council at the time of its hearing of the case.

J. Standards

1. General Standards

All development and redevelopment to which this section applies shall comply with the standards of this section. The design and construction of stormwater improvements shall be according to the City of Mebane Storm Sewer Design Manual and the City's Stormwater BMP Design Manual which requirements are hereby adopted and made a part of this Section as if set out in full.

2. Development Standards for Low-Density Projects

Low-density projects may not exceed either two dwelling units per acre or twenty-four percent built-upon area for all residential and non-residential development and shall comply with each of the following standards:

(a) Stormwater Conveyance

Stormwater runoff from the development shall be transported from the development by vegetated conveyances to the maximum extent practicable.

(b) Stream Buffers

All built-upon area shall be at a minimum of 30 feet landward of all perennial and intermittent surface waters. A perennial or intermittent surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using Division-approved methodology. Stream buffers within this section are subservient to more stringent buffers per other portions of this section.

(c) Density Provision

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

(d) Restrictions on Property Use

The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

3. Development Standards for High-Density Projects

High-density projects any project that exceeds either the low density thresholds for dwelling units per acre or built-upon area shall implement structural stormwater management systems that comply with each of the following standards:

(a) Treatment Volume

The measures shall be designed to control and treat the stormwater runoff generated by the 1" (one inch) of rain;

(b) Drawdown Time

Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours;

(c) Post-Development Flows

Stormwater shall not leave the project site at a rate greater than the predevelopment discharge rate for the ten-year, 24-hour storm;

(d) Total Suspended Solids Removal

All structural stormwater treatment systems used to meet the requirements of the program shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids (TSS);

(e) General Design Criteria

General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Design Manual;

All stormwater control measures that incorporate a permanent or temporary water pool with depth greater than two feet shall be fenced. The fence shall meet the design standards maintained by the Stormwater Administrator.

(f) Stream Buffers

All built-upon area shall be at a minimum of 30 feet landward of all perennial and intermittent surface waters. A surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture (USDA) or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using Division-approved methodology. Stream buffers within this section are subservient to more stringent buffers per other portions of this section.

(g) Restrictions on Property Use

The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

4. Standards for Stormwater Control Measures

(a) Evaluation According to Contents of Stormwater BMP Design Manual

All stormwater control measures and stormwater treatment practices (also referred to as Best Management Practices (BMPs) or Stormwater Control Measures (SCMs), required under this section shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Stormwater BMP Design Manual. The Stormwater Administrator shall determine whether proposed BMPs will be adequate to meet the requirements of this section.

- (b) **Determination of Adequacy; Presumptions and Alternatives**
Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the Stormwater BMP Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this section. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Stormwater BMP Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this section. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.
- (c) **Separation from Seasonal High Water Table**
For BMPs that require a separation from the seasonal high-water table, the separation shall be provided by as required within the Stormwater BMP Design Manual.

5. Dedication of BMP's, Facilities, and Improvements

Unless otherwise approved, ownership of any existing or future stormwater management facilities shall remain with the owner of the property or a legally established property owner's association. Such facilities shall meet all the requirements of this section and include adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

6. Variances

- (a) **Petition**
Any person may petition the City of Mebane for a variance granting exceptions from the 30-foot landward location of built-upon area requirement as well as the deed restrictions and protective covenants requirement as follows:
 - (i) Unnecessary hardships would result from strict application of this section but it shall not be necessary to demonstrate, in the absence of the variance, no reasonable use of the property can be made.
 - (ii) The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property.
 - (iii) The hardships did not result from actions taken by the petitioner.
 - (iv) The requested variance is consistent with the spirit, purpose, and intent of this section; will secure public safety and welfare; and will preserve substantial justice.

The City of Mebane may impose reasonable and appropriate conditions and safeguards upon any variance it grants.

7. Statutory exceptions

Notwithstanding subdivision (A) of this section, exceptions from the 30-foot landward location of built-upon area requirement as well as the deed restrictions and protective covenants requirements shall be granted in any of the following instances:

- (i) When there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.
- (ii) When there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, including, but not limited to, water, sewer, or gas construction and maintenance corridor, as long as it is located 15 feet landward of all perennial and intermittent surface waters and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of BMPs.
- (iii) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration, or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters.

8. Nutrient Sensitive Waters Program

In addition to the standards for stormwater handling set out in the Stormwater BMP Design Manual, development and redevelopment shall design and implement the best stormwater practices that reduce nutrient loading, while still meeting the other requirements of this section.

9. Nutrient Management and Application Program

This section requires both inorganic fertilizer and organic nutrient application to be performed with the most current state-recognized technical guidance on proper nutrient management.

(a) Applicability

This Program shall apply to the following persons within the corporate limits and extraterritorial jurisdiction of the City of Mebane as follows.

- (i) Persons who own or manage cropland areas for commercial purposes;
- (ii) Persons who own or manage commercial ornamental and floriculture areas and greenhouse production areas;
- (iii) Persons who own or manage golf courses, grassed public recreational lands, grassed road or utility rights-of-way, or other institutional lands totaling at least five acres in size;
- (iv) Persons hired to apply nutrients to the lands described in Sub-Items (1) through (3) above or to residential, commercial, industrial or institutional properties, if the total area of the properties served exceeds 10 acres. This shall not apply to residential, commercial, or industrial landowners who apply nutrients to their own property.
- (v) Nutrient management consultants hired by persons listed in this Item to provide nutrient management advice for lands in the City's jurisdiction.

(b) Requirements

Persons to whom this Section applies shall meet the following requirements:

- (a) Any person subject to this rule who applies nutrients to, or who is hired to provide nutrient management advice for, land within the City's jurisdiction shall either:
 - a. Attend and complete nutrient management training pursuant to Item 308(C) of this Section; or
 - b. Complete and properly implement a nutrient management plan for all lands to which they apply or manage the application of nutrients, or for which they provide nutrient management advice, pursuant to Item 308(D) of this Section.
- (b) Persons who hire an applicator to apply nutrients to the land that they own or manage shall either:
 - (a) Ensure that the applicator they hire has attended and completed nutrient management training pursuant to Item 308(C) of this Section; or
 - (b) Ensure that the applicator they hire has completed a nutrient management plan for the land that they own or manage pursuant to Item 308(D) of this Section; or
 - (c) Complete a nutrient management plan for the land that they own or manage pursuant to Item 308(D) of this Section and ensure that the applicator they hire follows this plan.

10. Nutrient Management Training

Persons who choose to meet this requirement by completing nutrient management training shall meet the following requirements.

- (a) Persons who are subject to this Section as of its effective date, and persons who become subject to this Section after its effective date, shall complete training provided by either the Cooperative Extension Service or the North Carolina Department of Environment and Natural Resources - Division of

Water Quality within five years and obtain a certificate from the training entity to that effect. Training shall be sufficient to provide participants with an understanding of the value and importance of proper management of nitrogen and phosphorus, and the water quality impacts of poor nutrient management, and the ability to understand and properly carry out a nutrient management plan.

- (b) Persons who become subject to this Section after its effective date shall complete the training provided by either the Cooperative Extension Service or the North Carolina Department of Environment and Natural Resources - Division of Water Quality and obtain a certificate to that effect from the training entity within one year from the date that they become subject verifying completion of training that addresses the elements identified in 308(C)1.
- (c) Persons who fail to obtain the nutrient management certificate within the required timeframes or who are found by the Stormwater Administrator to have knowingly failed to follow nutrient management requirements as referenced in 308(D)1 through 308(D)1.c of this section shall develop and properly implement nutrient management plans pursuant to Item (e) of this Section.
- (d) Training certificates must be kept on-site, at the job site, or be produced within 24 hours of a request by the City of Mebane.

11. Nutrient Management Plans

Persons who choose to meet the nutrient application requirement by completing and implementing a nutrient management plan shall meet the following requirements.

- (a) Persons who are subject to this Section as of its effective date and persons who become subject to this Section after its effective date shall develop and implement a nutrient management plan that meets the following standards within five years of the effective date or within 6 months from the date that they become subject, whichever is later.
- (b) Nutrient management plans for cropland shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission, including those found in 15A NCAC 06E .0104 and 15A NCAC 06F .0104, which are incorporated herein by reference, including any subsequent amendments and additions to such rules that are in place at the time that plans are approved by a technical specialist as required under 308(D)2 of this section.
- (c) Nutrient management plans for turfgrass shall follow the North Carolina Cooperative Extension Service guidelines in "Water Quality and Professional Lawn Care" (NCCES publication number WQMM-155), "Water Quality and Home Lawn Care" (NCCES publication number WQMM-151), or other equivalent or more stringent guidance distributed by land-grant universities for turfgrass management.

- (d) Nutrient management plans for nursery crops and greenhouse production shall follow the Southern Nurserymen's Association guidelines promulgated in "Best Management Practices Guide For Producing Container-Grown Plants" or guidelines distributed by land-grant universities. The materials related to nutrient management plans for turfgrass, nursery crops and greenhouse production are hereby incorporated by reference including any subsequent amendments and editions and are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina.
- (e) The person who writes the nutrient management plan shall have the plan approved in writing by a technical specialist. Appropriate technical specialists shall be as follows.
- (f) Nutrient management plans for cropland using either inorganic fertilizer or organic nutrients shall be approved by a technical specialist designated pursuant to the process and criteria specified in Rules adopted by the Soil and Water Conservation Commission for nutrient management planning, including 15A NCAC 06F .0105, excepting Sub-Item (a)(2) of that Rule.
- (g) Nutrient management plans for turfgrass and nursery crops and greenhouse production shall be approved by a technical specialist designated by the Soil and Water Conservation Commission pursuant to the process and criteria specified in 15A NCAC 06F .0105, excepting Sub-Item (a)(2) of that Rule. If the Soil and Water Conservation Commission does not designate such specialists, then the Environmental Management Commission shall do so using the same process and criteria.
- (h) Nutrient management plans and supporting documents must be kept on-site or be produced within 24 hours of a request by the City.

12. On-site Wastewater Treatment Systems

For new development and redevelopment that includes the use of on-site wastewater treatment systems, a copy of the approved system permit issued by the Alamance County Environmental Health Department shall be provided to the Stormwater Administrator.

K. Maintenance

1. General Standards for Maintenance

- (a) **Function of BMPs As Intended**
The owner of each structural BMP installed pursuant to this section 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 BMP was designed.
- (b) **Annual Maintenance Inspection and Report**

The person responsible for maintenance of any structural BMP installed pursuant to this section shall submit to the Stormwater Administrator an annual inspection report from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, or landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

- (i) The name and address of the land owner;
- (ii) The recorded book and page number of the lot of each structural BMP;
- (iii) A statement that an inspection was made of all structural BMPs;
- (iv) The date the inspection was made;
- (v) A statement that all inspected structural BMPs are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this section; and
- (vi) The original signature and seal of the engineer, surveyor, or landscape architect.

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.

2. Operation and Maintenance Agreement

(a) In General

Prior to the conveyance or transfer of any lot or building site to be served by a *structural BMP* pursuant to this section, and prior to issuance of any permit for *development or redevelopment* requiring a *structural BMP* pursuant to this section, the applicant or *owner* of the site must execute an operation 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 BMP*. Until the transference of all property, sites, or lots served by the *structural BMP*, the original *owner* or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.

The operation and maintenance agreement shall require the *owner* or *owners* to maintain, repair and, if necessary, reconstruct the *structural BMP*, and shall state the terms, conditions, and schedule of maintenance for the *structural BMP*. In addition, it shall grant to City of Mebane a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the *structural BMP*; however, in no case shall the right of entry, of itself, confer an obligation on City of Mebane to assume responsibility for the *structural BMP*.

The operation and maintenance agreement must be approved by the Stormwater Administrator prior to plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation.

(b) Special Requirement for Homeowners' and Other Associations

For all structural BMPs required pursuant to this section and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, the required operation and maintenance agreement shall include all of the following provisions:

- (c) Acknowledgment that the association shall continuously operate and maintain the stormwater control and management facilities.
- (d) Establishment of a financial guarantee per the City of Mebane's standard operation and maintenance agreement that provides for maintenance of the BMP. The City of Mebane's standard operation and maintenance agreement is to be reviewed and approved the City Attorney.
- (e) Granting to the City of Mebane a right of entry to inspect, monitor, maintain, repair, and reconstruct structural BMPs.
- (f) Allowing the City of Mebane to recover from the association any and all costs the City of Mebane expends to maintain or repair the structural BMPs or to correct any operational deficiencies. Failure to pay the City of Mebane all of its expended costs, after forty-five days written notice, shall constitute a breach of the agreement. In case of a deficiency, the City of Mebane shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.
- (g) A statement that this agreement shall not obligate the City of Mebane to maintain or repair any structural BMPs, and the City of Mebane shall not be liable to any person for the condition or operation of structural BMPs.
- (h) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the City of Mebane to enforce any of its ordinances as authorized by law.
- (i) A provision indemnifying and holding harmless the City of Mebane for any costs and injuries arising from or related to the structural BMP, unless the City of Mebane has agreed in writing to assume the maintenance responsibility for the BMP and has accepted dedication of any and all rights necessary to carry out that maintenance.

3. Inspection Program

Inspections and inspection programs by City of Mebane may be conducted or established on any reasonable basis, including but not limited to routine

inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in BMPs; and evaluating the condition of BMPs.

If the owner or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

4. Performance Security for Installation and Maintenance

(a) May Be Required

The City of Mebane may, at its discretion, require the submittal of a 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 the structural BMPs are:

(b) installed by the permit holder as required by the approved stormwater management plan, and/or

(c) maintained by the owner as required by the operation and maintenance agreement.

(d) Amount

(e) Installation

The amount of an installation performance security shall be the total estimated construction cost of the BMPs approved under the permit, plus 25%.

(f) Maintenance

The amount of a maintenance performance security shall be the equal to forty (40) percent of the total estimated construction cost of the BMP approved under the permit.

(g) Uses of Performance Security

(i) Forfeiture Provisions

The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or owner in accordance with this section, approvals issued pursuant to this section, or an operation and maintenance agreement established pursuant to this section.

(ii) Default

Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any structural BMP in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall

obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the City of Mebane shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.

(iii) **Costs in Excess of Performance Security**

If City of Mebane takes action upon such failure by the applicant or owner, the City may collect from the applicant or owner the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

(iv) **Refund**

Within sixty days of the final approval, the installation performance security shall be refunded to the applicant or terminated, with the exception of any amount attributable to the cost (plus 25%) of landscaping installation and ongoing maintenance associated with the BMPs covered by the security. Any such landscaping shall be inspected one (1) 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.

5. Notice to owners

(a) **Deed Recordation and Indications On Plat**

The applicable operations and maintenance agreement pertaining to every structural BMP 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 county 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 section, structural BMPs shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

6. Records of Installation and Maintenance Activities

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

7. Nuisance

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

8. Maintenance Easement

Every structural BMP installed pursuant to this section shall be made accessible for adequate maintenance and repair by a maintenance easement. This access maintenance easement shall have a minimum width of 20 feet, a maximum slope of 15%, be connected to public right-of-way, be cleared, and be traversable by construction equipment. The easement shall be recorded and its terms shall specify who may make use of the easement and for what purposes.

L. Enforcement and Violations

1. General

(a) Authority to Enforce

The provisions of this section shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of City of Mebane. Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of City of Mebane.

(b) Violation Unlawful

Any failure to comply with an applicable requirement, prohibition, standard, or limitation imposed by this section, or the terms or conditions of any permit or other development or redevelopment approval or authorization granted pursuant to this section, is unlawful and shall constitute a violation of this section.

(c) Each Day a Separate Offense

Each day that a violation continues shall constitute a separate and distinct violation or offense.

(d) Responsible Persons/Entities

Any person who erects, constructs, reconstructs, alters (whether actively or passively), or fails to erect, construct, reconstruct, alter, repair or maintain any structure, BMP, practice, or condition in violation of this section shall be subject to the remedies, penalties, and/or enforcement actions in accordance with this section. Persons subject to the remedies and penalties set forth herein may include any architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that results in or constitutes a violation of this section, or fails to take appropriate action, so that a violation of this section results or persists; or an owner, any tenant or occupant, or any other person, who has control over, or responsibility for, the use or development of the property on which the violation occurs.

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

- (e) **Person Maintaining Condition Resulting In or Constituting Violation**
An architect, engineer, builder, contractor, developer, agency, or any other person who participates in, assists, directs, creates, causes, or maintains a condition that constitutes a violation of this section, or fails to take appropriate action, so that a violation of this section results or persists.
- (f) **Responsibility For Land or Use of Land**
The owner of the land on which the violation occurs, any tenant or occupant of the property, any person who is responsible for stormwater controls or practices pursuant to a private agreement or public document, or any person, who has control over, or responsibility for, the use, development or redevelopment of the property.

2. Remedies and Penalties

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

- (a) **Remedies**
 - (i) **Withholding of Certificate of Occupancy**
The Stormwater Administrator or other authorized agent may refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site and served by the stormwater practices in question until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.
 - (ii) **Disapproval of Subsequent Permits and Development Approvals**
As long as a violation of this section continues and remains uncorrected, the Stormwater Administrator or other authorized agent may withhold, and the Planning Board of the City of Mebane may disapprove, any request for permit or development approval or authorization provided for by this section or the Planning Board of the City of Mebane for the land on which the violation occurs.
 - (iii) **Injunction, Abatements, etc.**
The City Attorney, with the authorization of the City Council, may institute an action in a court of competent jurisdiction for a mandatory or prohibitory injunction and order of abatement to correct a violation of this section. Any person violating this section shall be subject to the full range of equitable remedies provided in the General Statutes or at common law.
 - (iv) **Correction as Public Health Nuisance, Costs as Lien, etc.**
If the violation is deemed dangerous or prejudicial to the public health or public safety and is within the geographic limits prescribed by North Carolina G.S. § 160A-193, the Stormwater Administrator, with the authorization of the City Council, may cause the violation to be corrected and the costs to be assessed as a lien against the property.

(v) Stop Work Order

The Stormwater Administrator may issue a stop work order to the person(s) violating this section. The stop work order shall remain in effect until the person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein. The stop work order may be withdrawn or modified to enable the person to take the necessary remedial measures to cure such violation or violations.

(vi) Civil Penalties

Violation of this section may subject the violator to a civil penalty to be recovered in a civil action in the nature of a debt if the violator does not pay the penalty within 30 days after notice of the violation is issued by the Stormwater Administrator. Civil penalties may be assessed up to the full amount of penalty to which the City of Mebane is subject for violations of its Phase II Stormwater permit.

(vii) Criminal Penalties

Violation of this section may be enforced as a misdemeanor subject to the maximum fine permissible under North Carolina law.

3. Procedures

(a) Initiation/Complaint

Whenever a violation of this section occurs, or is alleged to have occurred, any person may file a written complaint. Such complaint shall state fully the alleged violation and the basis thereof, and shall be filed with the Stormwater Administrator, who shall record the complaint. The complaint shall be investigated promptly by the Stormwater Administrator.

(b) Inspection

The Stormwater Administrator shall have the authority, upon presentation of proper credentials, to enter and inspect any land, building, structure, or premises to ensure compliance with this section.

(c) Notice of Violation and Order to Correct

When the Stormwater Administrator finds that any building, structure, or land is in violation of this section, the Stormwater Administrator shall notify, in writing, the property owner or other person violating this section. The notification shall indicate the nature of the violation, contain the address or other description of the site upon which the violation is occurring, order the necessary action to abate the violation, and give a deadline for correcting the violation. If civil penalties are to be assessed, the notice of violation shall also contain a statement of the civil penalties to be assessed, the time of their accrual, and the time within which they must be paid or be subject to collection as a debt.

The Stormwater Administrator may deliver the notice of violation and correction order personally, by the City Police Department, City Planning 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.

If a violation is not corrected within a reasonable period of time, as provided in the notification, the Stormwater Administrator may take appropriate action under this section to correct and abate the violation and to ensure compliance with this section.

(d) 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 30 days. The Stormwater Administrator may grant 15-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 section. 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.

(e) 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 section.

(f) Emergency Enforcement

If delay in correcting a violation would seriously threaten the effective enforcement of this section 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 Section.

M. Definitions

Refer to Article 12 "Definitions".

5-3 Watershed Overlay District Regulations

A. Purpose and Intent

The watershed protection overlay districts, as described in Section 3-1, C, 2, (b) and (c) are designed to protect designated public water supply watershed from activities which could degrade water quality. The following separate watershed protection overlay districts have been established:

1. WCA, Watershed Critical Area Overlay District and
2. GWA, General Watershed Area Overlay District.

The above water supply watershed overlay districts are within public water supply watersheds that have been classified by the State of North Carolina as a WS-II watershed. The WCA Overlay District represents the Graham-Mebane Lake Public Water Supply Watershed WS-II Critical Area and the Upper Eno River Public Water Supply Watershed WS-II Critical Area, the GWA Overlay District represents the Graham-Mebane Lake Public Water Supply Watershed WS-II Balance of Watershed Area and the Upper Eno River Public Water Supply Watershed WS-II Balance of Watershed Area, all as designated by the NC Environmental Management Commission. The purpose of this Section is to implement the provisions of the Water Supply Watershed Protection Act (NCGS 143-214.5) which requires the City of Mebane to adopt minimum land use regulations, consistent with the WS-II Critical Area and Balance of Watershed management rules as adopted by the North Carolina Environmental Management Commission, to protect the water quality of the Graham-Mebane Lake Watershed and Upper Eno River Watershed located within the city's planning and zoning jurisdictional area.

Amended June 7, 2021

B. General Provisions Applicable to Water Supply Watershed Overlay

C. Districts

Amended June 7, 2021

1. The construction of new roads and bridges and non-residential development should minimize built-upon area, divert stormwater away from surface water supply waters as much as possible, and employ best management practices (BMPs) to minimize water quality impacts. To the extent practicable, construction of new roads in the critical area should be avoided. The Department of Transportation BMPs as outlined in their document entitled *Best Management Practices for the Protection of Surface Waters* shall be used in all road and bridge construction projects in the Watershed Overlay Districts.
2. All development activities within Watershed Overlay Districts, in addition to those activities specifically regulated by these provisions, are subject to the standards, usage conditions and other regulations contained in the Rules and Requirements of the Surface Water Supply Protection Rules adopted by the North Carolina Environmental Management Commission.
3. A minimum 30-foot vegetative buffer for development activities is required along all perennial waters, including streams, rivers and impoundments, indicated on the most recent versions of the United

States Geodetic Survey (USGS) 1:24,000 scale topographic maps; provided, that a 50-foot buffer shall be required along Graham-Mebane Lake. Nothing in this subsection shall prevent artificial streambank or shoreline stabilization. No new development is allowed in the buffer, except that water-dependent structures and public works projects such as road crossings and greenways, may be allowed where no practicable alternative exists. These activities shall minimize built-upon surface area, direct runoff away from the surface water, and maximize the utilization of BMPs. The City's Riparian Buffer Protection Ordinance shall have precedence over all other stream or riparian buffer regulations within the City of Mebane's Jordan Lake Watershed jurisdiction. Stream buffers within the Falls Lake Watershed are administered by the NC Department of Environmental Quality.

4. Existing development, as defined in this Ordinance, is not subject to the requirements of the overlay provisions. Expansions to structures, other than single-family, classified as existing development must meet the requirements of these provisions, provided however, the built-upon area of the existing development is not required to be included in the density calculations. In determining expansions to existing development, the maximum permitted additional built-upon area is derived by multiplying the area of the portion of the property that is not built-upon by the appropriate percent built-upon limitation for the Overlay District in which the property is located.
5. A pre-existing lot created prior to the effective date of this Ordinance, regardless of whether or not a vested right has been established, may be developed or redeveloped for single-family residential purposes without being subject to the restrictions of these overlay provisions.
6. Any existing building or built-upon area not in conformance with the limitations of these provisions that has been damaged or removed for any reason may be repaired and/or reconstructed, provided:
 - (a) Repair or reconstruction is initiated within 12 months and completed within 2 years of such damage or removal.
 - (b) The total amount of space devoted to built-upon area may not be increased.
 - (c) The repair or reconstruction is otherwise permitted under the provisions of this Ordinance.
7. Clustering of development if permitted by the underlying use district is allowed on a project by project basis as follows: overall density of the project meets associated density or stormwater control requirements; built upon areas are designed and sited to minimize stormwater runoff impact to the receiving waters and minimizes concentrated stormwater flow; remainder of tract to remain in vegetated or natural state.

8. No activity, situation, structure or land use shall be permitted or allowed to operate within a watershed which poses a threat to water quality and the public health, safety and welfare. Such conditions may arise from inadequate on-site sewage 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 toxic and hazardous materials; the improper management of stormwater runoff; or any other situation found to pose a threat to water quality.
9. The Zoning Administrator may require such information on subdivision plat, zoning and special use permit and site development plan applications, including density/built-upon area calculations, as he/she may deem necessary to determine compliance with Watershed Overlay District provisions. Preliminary and final subdivision plat approval and other such plan approvals may be required to note density/built-upon limitations on the plat. For example, plats may be required to show such information as total area of the development, the amount and percent of impervious area in streets and sidewalks, the amount and percent of impervious area in other public improvements, and the amount and percent of impervious area that is allocated to the various lots for future development. Such information shall be displayed in such a manner that the Zoning Administrator can readily determine compliance with these provisions on a project by project basis.
10. The Zoning Administrator may, prior to the issuance of any permit in a Watershed Overlay District, require evidence of a valid Sedimentation Control Permit issued by the State of North Carolina or evidence satisfactory to the Zoning Administrator that no permit is required.
11. The Zoning Administrator shall maintain records of the administration of the Watershed Overlay District regulations and shall submit any modifications of the regulations and/or Map to the Division of Community Assistance. The Zoning Administrator shall also maintain a record of variances issued pursuant to Article 8, Section 8-2, C of this Ordinance and shall submit an annual report of each project receiving a variance and the reason for the variance to the Division of Environmental Management.

D. WCA, Watershed Critical Area Overlay District Regulations

Amended August 2, 2021

1. General Development Standards:

- (a) No new sites for land application of sludge/residual or petroleum contaminated soils are allowed.

- (b) No new landfills are allowed.
- (c) Existing non-residential development shall maintain an inventory of all toxic and hazardous materials and shall implement a spill/failure containment plan approved by the Fire Chief or his designated agent.
- (d) No new use which uses, stores or manufactures hazardous or toxic materials on the premises shall be allowed.
- (e) No new use which is first permitted in either the HM or LM manufacturing zoning districts shall be allowed.
- (f) No new underground fuel or chemical storage tanks are allowed.

2. Density-Built-upon Limitations:

- (a) Residential development shall not exceed one dwelling unit per two acres or, optionally, 6 percent built-upon area, on a project by project basis.
- (b) Non-residential development shall not exceed 6 percent built-upon area, on a project by project basis.

E. GWA, General Watershed Area Overlay District (Balance of Watershed) Regulations

Amended August 2, 2021

1. General Development Standards:

- (a) No new discharging landfills are allowed.
- (b) Existing non-residential development shall maintain an inventory of all toxic and hazardous materials and shall implement a spill/failure containment plan approved by the Fire Chief or his designated agent.

2. Density/Built-Upon Limitations:

- (a) Residential development shall not exceed one dwelling unit per acre or, optionally 12 percent built-upon area, on a project by project basis.

- (b) Non-residential development shall not exceed 12 percent built-upon area, on a project by project basis.
- (c) Notwithstanding the limitations of subsection (b) above, 10 percent of the GWA area may be developed with new projects of up to 70 percent built-upon area as Special Intensity Allocations (SIAs). SIAs shall be allocated and developed in accordance with the following rules:
 - (1) SIAs shall be allocated by the Zoning Administrator through the Zoning Permit/Development Plan process. The Zoning Administrator shall maintain a record of the total acreage in the GWA area eligible for SIAs, the acreage that has been allocated and the acreage that has been used as of the latest date. In no case shall allocated acreage exceed the acreage eligible for allocation.
 - (2) SIAs shall be allocated on a 'first come, first served' basis upon the approval and issuance of the appropriate permit, provided that no SIA shall be allocated to a development unless it is served by or is to be served by City of Mebane water and sewer service.
 - (3) The right to develop a SIA shall terminate with the loss of the right to develop due to the expiration of a zoning permit, zoning permit with vested right, or building permit. In such a case, the allocated acreage, or unused allocated acreage, shall be returned to the unallocated total acreage eligible for allocation.

Amended August 2, 2021

- (4) All SIA development shall be located so that all stormwater from the development drains into an engineered stormwater control facility designed and constructed in accordance with all the requirements of subsection E, 5, (c) below.

F. Exceeding Basic Density/Built-upon Limitations; Permit to Exceed

Development in the Watershed Overlay Districts may exceed the basic density/built-upon limitations established in subsections C, 2 and D, 2 above upon the receipt of a Permit to Exceed from the Zoning Administrator. No Permit to Exceed shall be issued except for development which is in conformance with the following conditions and limitations:

1. Built-upon Limitations

In no case, other than the above listed SIA, shall the built-upon area of any development, on a project by project basis, exceed the following limitations and all development shall be calculated on a built-upon area basis only:

(a) WCA 24% built-upon area

(b) GWA 30% built-upon area

Nothing in this Section, however, shall permit any development to exceed the maximum permissible lot coverage limitations for principal and accessory buildings as set forth in this Ordinance for Use Districts.

Amended June 7, 2021

2. Buffer

A minimum 50 foot vegetative buffer is required for any new development activity within the Jordan Lake watershed and a minimum 100 foot vegetative buffer is required for any new development activity within the Falls Lake watershed which exceeds the basic density/built-upon limitations along all perennial waters indicated on the most recent versions of USGS 1:24,000 scale topographic maps. Nothing in this subsection shall prevent artificial streambank or shoreline stabilization. No new development is allowed in the buffer, except that water dependent structures and public works projects such as road crossings, utilities and greenways may be allowed where no practicable alternatives exist. These activities shall minimize built-upon surface area, direct runoff away from surface water, and maximize the use of BMPs. The City's Riparian Buffer Protection Ordinance shall have precedence over all other stream or riparian buffer regulations within the City of Mebane's jurisdiction.

Amended June 7, 2021

3. Development Location

All development which exceeds the basic density/built-upon limitations shall be located so that all stormwater from the development drains into an engineered stormwater control facility designed and constructed in conformance with the requirements of this Section.

4. Facility Approval

No Permit to Exceed shall be issued for any development until such facility is fully constructed and approved by the Zoning Administrator or his/her agent to be capable of functioning in accordance with the requirements of this Section. Prior to inspection by the Zoning Administrator or his/her agent to determine compliance, the developer shall furnish a certification sealed by an engineer or landscape architect stating that the facility is complete and consistent with the approved plans and specifications.

5. Facility Requirements

Engineered stormwater control facilities intended to serve development which exceeds the basic density/built-upon limitations of this Ordinance shall conform with the following requirements:

- (a) **Developer Responsible for Costs.** The developer or his designee shall be responsible for all costs associated with the construction, operation, maintenance and repair of any such facility.
- (b) **Plans Required.** No construction shall begin on any such facility until the construction, operation and maintenance and related plans have been submitted to and approved by the Zoning Administrator. The maintenance and operation plan shall specify a facility ownership plan and the entity to be responsible for maintenance, operation, and repair. The plan shall designate sufficient area and access to perform inspections maintenance, repairs and reconstruction. The plan shall also provide a cost estimate for routine and non-routine maintenance over a 20 year period. At the time the plans are submitted, the developer shall pay to the City of Mebane a plan review and construction inspection fee as set by the City Council.
- (c) **Design Standards.** All stormwater control facilities shall be designed in accordance with the City's Stormwater BMP Design Manual with a primary treatment system unless alternative stormwater management measures, as outlined in subsection (f) below, are used. Specific requirements for these systems shall be in accordance with the following design criteria:
 - (1) Stormwater Control Systems shall be designed to control and treat the stormwater run-off generated by the 1" (one inch) of rain;
 - (2) Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours;
 - (3) Stormwater shall not leave the project site at a rate greater than the predevelopment discharge rate for the ten-year, 24-hour storm;
 - (4) All structural stormwater treatment systems used to meet the requirements of the program shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids (TSS);
 - (5) General engineering design criteria for all projects shall be in accordance with applicable state law, as explained in the Design Manual;
 - (6) All stormwater control measures that incorporate a permanent or temporary water pool with depth greater than

two feet shall be fenced. The fence shall meet the design standards within the Design Manual.

- (7) All disturbed land areas shall be provided with a ground cover sufficient to restrain erosion within 15 days after any land disturbance. Upon completion of the stormwater control structure, a permanent ground cover shall be established and maintained as part of the maintenance and operations plan.

Amended June 7, 2021

- (d) A description of the area containing the stormwater control structure shall be prepared and filed as a separate deed with the applicable county Register of Deeds along with any easements necessary for general access to the stormwater control structure. The deeded area shall include the stormwater control structure, vegetative filters, all pipes and water control structures, berms, dikes, etc., and sufficient area to perform inspections, maintenance, repairs, and reconstruction.
- (e) Qualifying areas of the stormwater control structure may be considered pervious when computing total built-upon area. However, if the structure is used to compute the percentage built-upon area for one site, it shall not be used to compute built-upon are for any other site or area.
- (f) Alternative Stormwater Management Measures. Alternative stormwater management systems, as detailed in the NC Stormwater Best Management Practices Manual, consisting of one treatment option or a combination of treatment options, may be used. The design criteria for approval shall be 85 percent average annual removal of Total Suspended Solids.
- (g) Additional Water Quantity Restrictions. The City of Mebane may, at its discretion, require matching of the predevelopment discharge rate for up to the one hundred year, 24 hour storm. This basis shall be defined by pre-existing excessive downstream flooding.

Amended June 7, 2021

6. Finance Guarantee and Maintenance Agreement

Before the Zoning Administrator shall approve the completed facility and issue any Permit to Exceed, the developer and/or maintaining entity shall furnish the City of Mebane with a financial guarantee ensuring future maintenance, operation and repair of the facility. The financial guarantee shall be in the form of cash, an irrevocable letter of credit or other instrument readily convertible to cash at face value and shall be deposited and made payable to the City of

Mebane. The amount of the deposit shall be equal to 40 percent of the total cost of constructing the facility. The initial cost estimates shall be the responsibility of the developer but the approval of the final cost estimate shall be made by the Zoning Administrator or his/her agent. At this time the developer and/or maintaining entity shall also pay to the City of Mebane a fee as set by the City Council to cover annual inspections by the City for 20 years.

The initial duration of the financial guarantee shall be for 20 years. At the end of that period the City of Mebane may, at its own option, require extension of the guarantee for an additional period of up to 20 years based upon future maintenance cost or take whatever lawful action it may deem appropriate at that time. The financial guarantee may be dissolved at any time in its lifetime by mutual agreement when the need for such guarantee no longer exists.

As part of the financial guarantee, the developer or maintaining entity shall enter into a binding Operation and Maintenance Agreement in a form acceptable to and enforceable by the City of Mebane. Such agreement shall require the responsible entity to maintain, repair and, if necessary, reconstruct the facility in accordance with the approved operation and maintenance plan. The plan shall clearly indicate the steps that will be taken for restoring a stormwater control structure to design specifications if a failure occurs.

Landscaping and grounds management shall be the responsibility of the owning entity. However, vegetation shall not be established or allowed to mature to the extent that the integrity of the control structure is diminished or threatened, or to the extent of interfering with any easement or access to the stormwater control structure.

The agreement shall pledge the financial guarantee in support of the agreement but also shall acknowledge that default does not release the entity from liability/responsibility for operation, maintenance and repair/reconstruction. The agreement shall provide that in case of default by the operating entity, the City of Mebane, at any time after default, may on its own motion assume actual maintenance and operation of the facility and convert for its use in maintenance and operation any and all funds remaining in the financial guarantee. The agreement shall be recorded with the appropriate County Register of Deeds by the Zoning Administrator after it is executed by both parties. No changes to the agreement or its terms including ownership and responsible entity shall be made except upon agreement of the parties.

Amendments to the plans and specifications of the stormwater control structure and/or the operation and maintenance plan shall be approved by the Zoning Administrator. Proposed changes shall be prepared by a North Carolina registered professional engineer or

landscape architect (to the extent that the General Statutes, Chapter 89A, allow) and submitted to and reviewed by the City Engineer.

7. Inspections

The Zoning Administrator or his/her agent shall inspect all facilities at least on an annual basis to determine whether the controls are performing as designed or intended and whether maintenance is being performed as required. Records of inspections shall be maintained on forms approved or supplied by the NC Division of Environmental Management. The first annual inspection shall be made during the 12 months following the date of certification.

8. Failure to Perform

In the event the Zoning Administrator should find that the facility is not performing as designed or intended or that maintenance and repairs are not being made as required or that any action is being done or not done that is in violation of this Ordinance or the agreement related to the facility, the Zoning Administrator shall notify the responsible entity who shall be given a reasonable time to correct the defect(s). Should the responsible entity fail to act, fail to act in a timely manner, or otherwise fail to correct the defect(s), the Zoning Administrator shall institute appropriate action to obtain compliance including criminal or civil penalties, or both. In addition, the City of Mebane may declare the responsible entity in default of the agreement and financial guarantee and use part or all of the proceeds of the guarantee to correct the defect(s) and may assume actual operation and maintenance. Default in the agreement does not release the responsible entity from liability/responsibility for the defect(s), nor release the entity from the agreement. Likewise, default in the agreement does not prevent the City of Mebane from taking criminal or civil action, or other.

G. Variances

Requests for variances from the watershed district overlay requirements of Section 5-3 shall be reviewed by the Board of Adjustment in accordance with the provisions of Section 8-2, C.

5-4 Falls Lake Watershed Stormwater Regulations For New Development

Amended June 7, 2021

This section shall be officially known as “The Falls Watershed Stormwater Regulations for New Development.” It is referred to herein as “this section.”

A. Authority

It is hereby determined that:

Development and redevelopment alter the hydrologic response of local watersheds and increases stormwater runoff rates and volumes, flooding, soil erosion, stream channel erosion, nonpoint and point source pollution, and sediment transport and deposition, as well as reducing groundwater recharge;

These changes in stormwater runoff contribute to increased quantities of water-borne pollutants and alterations in hydrology that are harmful to public health and safety as well as to the natural environment; and

These effects can be managed and minimized by applying proper design and well-planned controls to manage stormwater runoff from development sites.

Further, the Commission has identified Falls of Neuse reservoir, a water supply reservoir, as nutrient sensitive waters; has identified all or a portion of the reservoir as impaired waters under the federal Clean Water Act due to exceedances of the chlorophyll a standard; and has promulgated rules (the “Falls Rules”) to reduce the average annual loads of nitrogen and phosphorus delivered to Falls Reservoir from all point and nonpoint sources of these nutrients located within its watershed, including stormwater from new development in this jurisdiction;

Therefore, the City of Mebane establishes this set of water quality and quantity regulations to meet the requirements of state and federal law regarding control of stormwater runoff and discharge for development.

B. Purpose

The purpose of this ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of nitrogen and phosphorus in stormwater runoff and nonpoint and point source pollution associated with new development and redevelopment in the watershed of Falls of Neuse reservoir. It has been determined that proper management of construction-related and post-development stormwater runoff will minimize damage to public and private property and infrastructure; safeguard the public health, safety, and general welfare; and protect water and aquatic resources.

This ordinance seeks to meet its general purpose through the following specific objectives and means:

1. Establishing decision-making processes for development that protects the integrity of watersheds and preserve the health of water resources;
2. Requiring that new development and redevelopment maintain the pre-development hydrologic response in their post-development state for the applicable design storm to reduce flooding, streambank erosion, nonpoint

and point source pollution and increases in stream temperature, and to maintain the integrity of stream channels and aquatic habitats;

3. Establishing minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;

4. Establishing design and review criteria for the construction, function, and use of structural stormwater BMPs that may be used to meet the minimum post-development stormwater management standards;

5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for stormwater and the preservation of greenspace, riparian buffers and other conservation areas to the maximum extent practicable;

6. Establishing provisions for the long-term responsibility for and maintenance of structural and nonstructural stormwater BMPs to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;

7. Establishing administrative procedures for the submission, review, approval and disapproval of stormwater management plans, for the inspection of approved projects, and to assure appropriate long-term maintenance.

C. Applicability and Jurisdiction

1. General

Beginning with and subsequent to its effective date, this ordinance shall be applicable to all development and redevelopment, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to this ordinance. The provisions of this ordinance shall apply within the areas of the City of Mebane that fall within the Falls Lake Watershed as shown on the City of Mebane's Stormwater Map or as which drain to Falls Lake. Projects within this watershed are to fully comply with Sections 5-2, 5-3, and 5-4 as well as additional regulations included in this section

2. Exemptions

Single family and duplex residential and recreational development and redevelopment that cumulatively disturbs less than one half acre and is not part of a larger common plan of development or sale is exempt from the provisions of this ordinance.

Commercial, industrial, institutional, multifamily residential or local government development and redevelopment that cumulatively disturbs less than 12,000 square feet and is not part of a larger common plan of development or sale is exempt from the provisions of this ordinance.

Development and redevelopment that disturbs less than the above thresholds are not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate or distinct activities take place at different times on different schedules.

Development that is exempt from permit requirements of Section 404 of the federal Clean Water Act as specified in 40 CFR 232 (primarily, ongoing farming and forestry activities) are exempt from the provisions of this ordinance.

3. No Development or Redevelopment Until Compliance and Permit
No development or redevelopment shall occur except in compliance with the provisions of this ordinance or unless exempted. No development or redevelopment for which a permit is required pursuant to this ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.

4. Map

The provisions of this ordinance shall apply within the areas of the City of Mebane that fall within the Falls Lake Watershed as shown on the City of Mebane's Stormwater Map or as which drain to Falls Lake. The Stormwater Map and all explanatory matter contained thereon accompanies and is hereby made a part of this ordinance.

The Stormwater Map shall be kept on file by the Stormwater Administrator and shall be updated to take into account changes in the land area covered by this ordinance and the geographic location of all engineered stormwater controls permitted under this ordinance. In the event of a dispute, the applicability of this ordinance to a particular area of land or BMP shall be determined by reference to the North Carolina Statutes, the North Carolina Administrative Code, and local zoning and jurisdictional boundary ordinances.

D. Interpretation

Interpretation of this section is to be in compliance with Section 5-4 of this article.

E. Design Manual

The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the latest published edition or revision of the North Carolina Department of Environmental Quality's Stormwater Design Manual as the basis for the City's Stormwater BMP Design Manual (referred to herein as the Stormwater BMP Design Manual and/or Design Manual). The City's Stormwater BMP Design Manual will serve as the basis for decisions about stormwater permits and about the design, implementation and performance of structural and non-structural stormwater BMPs for compliance with the minimum water quality

performance standard of the Falls Rules. The City's Stormwater BMP Design Manual is further reflected in Section 5-1.

F. Relationship to Other Laws, Regulations and Private Agreements

1. Conflict of Laws

This section is not intended to modify or repeal any other ordinance, rule, regulation or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation or other provision of law. Where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human or environmental health, safety, and welfare shall control.

2. Private Agreements

This ordinance is not intended to revoke or repeal any easement, covenant, or other private agreement. However, where the regulations of this ordinance are more restrictive or impose higher standards or requirements than such an easement, covenant, or other private agreement, the requirements of this ordinance shall govern. Nothing in this ordinance shall modify or repeal any private covenant or deed restriction, but such covenant or restriction shall not legitimize any failure to comply with this ordinance. In no case shall City of Mebane be obligated to enforce the provisions of any easements, covenants, or agreements between private parties.

G. Severability

If the provisions of any section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this ordinance

H. Effective Date and Transitional Provisions

1. Effective Date

This Section shall take effect on _____, 201____.

2. Final Approvals, Complete Applications

All *development* and *redevelopment* projects for which complete and full applications were submitted and approved by the City of Mebane prior to the effective date of this ordinance and which remain valid, unexpired, unrevoked and not otherwise terminated at the time of *development* shall be exempt

from complying with all provisions of this ordinance dealing with the control and/or management of stormwater.

A phased development plan shall be deemed approved prior to the effective date of this ordinance if it has been approved by all necessary government units, it remains valid, unexpired, unrevoked and not otherwise terminated, and it shows:

- (a) For the initial or first phase of *development* or *redevelopment*, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project and a subdivision plan that has been approved.
- (b) For any subsequent phase of *development* or *redevelopment*, sufficient detail so that implementation of the requirements of this ordinance to that phase of *development* would require a material change in that phase of the plan.

3. Violations Continue

Any violation of provisions existing on the effective date of this ordinance shall continue to be a violation under this ordinance and be subject to penalties and enforcement under this ordinance unless the use, *development*, construction, or other activity complies with the provisions of this ordinance.

I. Review and Decision-Making Entities

1. Stormwater Administrator

(a) Designation, Powers, and Duties

A Stormwater Administrator shall be designated by the City Manager to administer and enforce this ordinance as defined in Section 5-4 with the powers and duties as defined in Section 5-4.

J. Review Procedures

The City shall require a permit for development in accordance with this section as defined in Section 5-4. The City shall review development as defined in Section 5-4.

K. Review of Applications for Approval, Processing, and Approval

Applications for approval shall be reviewed, processed, and approved as defined in Section 5-4.

L. Appeals

Any aggrieved *person* affected by any decision, order, requirement, or determination relating to the interpretation or application of this ordinance made by the Stormwater Administrator, may file an appeal to the Board of

Adjustment_within 30 days. Appeals shall be addressed as provided in Section 5-4.

M. Standards

1. General Standards

All *development* and *redevelopment* to which this ordinance applies shall comply with the standards of this section. The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future *development* and *redevelopment* maintains the site consistent with the approved project plans. Development standards from Section 5-4 shall also apply to this section.

2. Nitrogen and Phosphorus Loading

(a) Nitrogen and phosphorus loads contributed by the proposed new *development* shall not exceed the following unit-area mass loading rates: [2.2 and 0.33 pounds per acre per year for nitrogen and phosphorus, respectively.

(b) Notwithstanding 15A NCAC 2B.104(q), *redevelopment* subject to this ordinance that would replace or expand existing structures or improvements and would result in a net increase in *built-upon area* shall have the option of either meeting the loading standards identified in subsection (a) or meeting a loading rate that achieves the following nutrient loads compared to the *existing development* : 40 percent and 77 percent reduction for nitrogen and phosphorus, respectively.

(c) The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the *approved accounting tool*.

3. Nitrogen and Phosphorus Standard is Supplemental

The nitrogen and phosphorus loading standards in this ordinance are supplemental to, not replacements for, stormwater standards otherwise required by federal, state or local law, including without limitation any riparian buffer requirements applicable to the location of the *development*. This includes, without limitation, the riparian buffer protection requirements of 15A NCAC 2B.0233 and .0242.

4. Control and Treatment of Runoff Volume

Stormwater systems shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the *Design Manual*. To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, stormwater flows from the *development* shall not contribute to degradation of waters of the State. At a minimum, the *development* shall not result in a net increase in peak

flow leaving the site from pre-development conditions for the *ten-year, 24-hour storm* event.

5. Partial Offset of Nutrient Control Requirements

Development subject to this ordinance shall attain nitrogen and phosphorus loading rate reductions on-site that meet the following criteria prior to using an offsite offset measure:

- 30 percent or more reduction in both nitrogen and phosphorus loading from the untreated conditions for any single-family, detached and duplex residential development disturbing one half acre but less than one acre.
- 50 percent or more reduction in both nitrogen and phosphorus loading from the untreated conditions for any single-family, detached and duplex residential development disturbing more than one acre.
- 30 percent or more reduction in both nitrogen and phosphorus loading from the untreated condition for other development, including multi-family residential, commercial and industrial development disturbing 12,000 square feet but less than one acre.
- 50 percent or more reduction in both nitrogen and phosphorus loading from the untreated condition for other development, including multi-family residential, commercial and industrial development disturbing more than one acre.
- 30 percent or more reduction in both nitrogen and phosphorus loading from the untreated condition for proposed redevelopment activities in a designated downtown area that would replace or expand structures or improvements that existed as of December 2006.

A developer subject to this ordinance may achieve the additional reductions in nitrogen and phosphorus loading required by this ordinance by making offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. A developer may use an offset option provided by the City of Mebane. A developer may propose other offset measures to City of Mebane, including providing his or her own offsite offset or utilizing a private seller. All offset measures permitted by this ordinance shall meet the requirements of 15A NCAC 02B .0282 and 15A NCAC 02B .0240 or as amended.

6. Evaluation of Standards for Stormwater Control Measures

- (a) Evaluation According to Contents of Design Manual
All stormwater control measures, *stormwater systems* and stormwater treatment practices (also referred to as Best Management Practices, or BMPs) required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical

specifications and standards and the specific design criteria for each stormwater practice, in the *Design Manual*. The Stormwater Administrator shall determine whether proposed BMPs will be adequate to meet the requirements of this ordinance.

- (b) Determination of Adequacy; Presumptions and Alternatives
Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the *Design Manual* and the *approved accounting tool* will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the *Design Manual*, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

7. Dedication of BMPS, Facilities & Improvements

Unless otherwise approved, ownership of any existing or future stormwater management facilities shall remain with the owner of the property or a legally established property owner's association. Such facilities shall meet all the requirements of this section and include adequate and perpetual access and sufficient area, by easement or otherwise, for inspection and regular maintenance.

8. Variances

Any *person* may petition the City of Mebane for a variance granting permission to use the *person's* land in a manner otherwise prohibited by this ordinance. For all proposed major and minor variances from the requirements of this section shall be reviewed by the Board of Adjustment in accordance with the provisions of Section 8-2, C. Major variances require Environmental Management Commission approval.

N. Maintenance

1. General Standards for Maintenance

The *owner* of each *engineered stormwater control* installed pursuant to this section 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 *engineered stormwater control* was designed. General standards of maintenance are defined in Section 5-4.

O. Enforcement and Violations

The provisions of this ordinance shall be enforced by the Stormwater Administrator, his or her designee, or any authorized agent of City of

Mebane. Whenever this section refers to the Stormwater Administrator, it includes his or her designee as well as any authorized agent of City of Mebane. Enforcement and Violations are defined in Section 5-4.

P. Definitions

Refer to Article 12 “Definitions”.

5-5 Jordan Lake Riparian Buffer Regulations

Amended June 7, 2021

A. Authority

This Section of the Unified Development Ordinance is adopted pursuant to the authority vested in the City of Mebane by the Session Laws and the General Statutes of North Carolina, particularly Session Law 2009-216 (House Bill 239), Session Law 2009-484 (Senate Bill 838), N.C. Gen. Stat §153A-121, 153A-140, Chapter 153A, Article 18, N.C. Gen. Stat §160A-174, 160A-193, Chapter 160D, and any special legislation enacted by the General Assembly for the City of Mebane

B. Purpose and Intent

The purposes of the City of Mebane in adopting the following Section is to protect and preserve existing riparian buffers throughout the Jordan Watershed as generally described in Rule 15A NCAC 02B .0262 (Jordan Water Supply Nutrient Strategy: Purpose and Scope), in order to maintain their nutrient removal and stream protection functions. Additionally, this Section will help protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.

Buffers adjacent to streams provide multiple environmental protection and resource management benefits. Forested buffers enhance and protect the natural ecology of stream systems, as well as water quality through bank stabilization, shading, and nutrient removal. They also help to minimize flood damage in flood prone areas. Well-vegetated streamside riparian areas help to remove nitrogen and prevent sediment and sediment-bound pollutants such as phosphorous from reaching the streams.

C. Title

This Ordinance shall be known as the *City of Mebane Riparian Buffer Protection Regulations*.

D. Jurisdiction

This Ordinance shall be applied to all land in the planning jurisdiction of the City of Mebane that falls within the Jordan Lake watershed. This watershed is reflected within the general statutes identified in Section 1 as well as on the City of Mebane’s Stormwater Map.

E. Applicability

This Ordinance applies to all landowners and other persons conducting activities in the area described in Section 4, with the exception of activities conducted under the authority of the State, the United States, multiple jurisdictions, or local units of government, and forest harvesting and agricultural activities. The NC Division of Water Quality shall administer the requirements of Rule 15A NCAC 02B .0267 and .0268 (Jordan Water Supply Nutrient Strategy: Protection of Existing Riparian Buffers and Mitigation of Existing Riparian Buffers, respectively) for these activities.

F. Relation to Other Ordinances

The requirements of this Ordinance shall supersede all locally implemented buffer requirements stated in Rules 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters in the Jordan watershed. If the provisions of this ordinance otherwise conflict with the provisions of any other validly enforceable ordinance(s) or laws, the most stringent provisions shall control. This Ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule, regulation, or other provision of law.

G. Riparian Area Protection within the Jordan Reservoir Watershed

1. Buffers Protected

The following minimum criteria shall be used for identifying regulated buffers:

- (a) This Ordinance shall apply to activities conducted within, or outside of with hydrologic impacts in violation of the diffuse flow requirements set out in Section 7.(E) upon, 50-foot wide riparian buffers directly adjacent to surface waters in the Jordan watershed (intermittent streams, perennial streams, lakes, reservoirs and ponds), excluding wetlands.
- (b) Wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to Rules 15A NCAC 2B .0230 and .0231, Rules 15A NCAC 2H .0500, 15A NCAC 2H .1300, and Sections 401 and 404 of the Federal Water Pollution Control Act.
- (c) For the purpose of this Ordinance, a surface water is defined as being present if the feature is approximately shown on any of the following:
 - (i) The most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture.

- (ii) The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS).
- (iii) A map approved by the Geographic Information Coordinating Council and by the NC Environmental Management Commission. Prior to approving a map under this Item, the Commission shall provide a 30-day public notice and opportunity for comment. Alternative maps approved by the Commission shall not be used for buffer delineation on projects that are existing and ongoing within the meaning of Section 7.(C) of this Ordinance.
- (d) Where the specific origination point of a stream regulated under this Item is in question, upon request of the NC Division of Water Quality or another party, the City of Mebane shall make an on-site determination. A City of Mebane representative who has successfully completed the Division's *Surface Water Identification Training Certification* course, its successor, or other equivalent training curriculum approved by the Division, shall establish that point using the latest version of the Division publication, *Identification Methods for the Origins of Intermittent and Perennial Streams*, available at http://h2o.enr.state.nc.us/ncwetlands/documents/NC_Stream_ID_Manual.pdf or from the NC Division of Water Quality - 401 Oversight Express Permitting Unit, or its successor. The City of Mebane may accept the results of a site assessment made by another party who meets these criteria. Any disputes over on-site determinations made according to this Item shall be referred to the Director of the Division of Water Quality c/o the 401 Oversight Express Permitting Unit, or its successor, in writing. The Director's determination is subject to review as provided in Articles 3 and 4 of G.S. 150B.
- (e) Riparian buffers protected by this Ordinance shall be measured pursuant to Section 7.(D) of this Ordinance.
- (f) Parties subject to this Ordinance shall abide by all State rules and laws regarding waters of the state including but not limited to Rules 15A NCAC 2B .0230 and .0231, Rules 15A NCAC 2H .0500, 15A NCAC 2H .1300, and Sections 401 and 404 of the Federal Water Pollution Control Act.

No new clearing, grading, or development shall take place nor shall any new building permits be issued in violation of this Ordinance.

2. Exemption Based on On-site Determination

When a landowner or other affected party including the Division believes that the maps have inaccurately depicted surface waters, he or she shall consult the City of Mebane. Upon request, a City of Mebane representative who has successfully completed the Division of Water Quality's *Surface Water Identification Training Certification* course, its successor, or other equivalent training curriculum approved by the

Division, shall make an on-site determination. The City of Mebane may also accept the results of site assessments made by other parties who have successfully completed such training. Any disputes over on-site determinations shall be referred to the Director of the Division of Water Quality c/o the 401 Oversight Express Permitting Unit, or its successor, in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to these buffer requirements if a site evaluation reveals any of the following cases:

- (a) Man-made ponds and lakes that are not part of a natural drainage way that is classified in accordance with 15A NCAC 2B .0100, including ponds and lakes created for animal watering, irrigation, or other agricultural uses. (A pond or lake is part of a natural drainage way when it is fed by an intermittent or perennial stream or when it has a direct discharge point to an intermittent or perennial stream.)
- (b) Ephemeral streams.
- (c) The absence on the ground of a corresponding intermittent or perennial stream, lake, reservoir, or pond.
- (d) Ditches or other man-made water conveyances, other than modified natural streams.

3. Exemption when Existing Uses are Present and Ongoing

This Ordinance shall not apply to uses that are existing and ongoing; however, this Ordinance shall apply at the time an existing, ongoing use is changed to another use. Change of use shall involve the initiation of any activity that does not meet either of the following criteria for existing, ongoing activity:

- (a) It was present within the riparian buffer as of the effective date of this Ordinance and has continued to exist since that time. Existing uses shall include agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems, any of which involve either specific, periodic management of vegetation or displacement of vegetation by structures or regular activity. Only the portion of the riparian buffer occupied by the footprint of the existing use is exempt from this Ordinance. Change of ownership through purchase or inheritance is not a change of use. Activities necessary to maintain uses are allowed provided that the site remains similarly vegetated, no impervious surface is added within 50 feet of the surface water where it did not previously exist as of the effective date of this Ordinance, and existing diffuse flow is maintained. Grading and revegetating Zone Two is allowed provided that the health of the vegetation in Zone One is not compromised, the ground is stabilized and existing diffuse flow is maintained.

- (b) Projects or proposed development that are determined by the City of Mebane to meet at least one of the following criteria:
- (i) Project requires a 401 Certification/404 Permit and these were issued prior to the effective date this Ordinance, and prior to the effective date of this Ordinance.
 - (ii) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and had received all required state permits and certifications prior to the effective date of this Ordinance;
 - (iii) Projects that are being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor and that have reached agreement with DENR on avoidance and minimization by the effective date of this Ordinance; or
 - (iv) Projects that are not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor if a Finding of No Significant Impact has been issued for the project and the project has the written approval of the City of Mebane prior to the effective date of this Ordinance.
 - (v) Projects that have a vested right per North Carolina General Statutes §160D.

4. Zones of the Riparian Buffer

The protected riparian buffer shall have two zones as follows:

- (a) Zone One shall consist of a vegetated area that is undisturbed except for uses provided for in the Table of Uses, Section 8.(B) of this Ordinance. The location of Zone One shall be as follows:
- (i) For intermittent and perennial streams, Zone One shall begin at the top of the bank and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the top of the bank.
 - (ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone One shall begin at the normal water level and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the normal water level.

Zone Two shall consist of a stable, vegetated area that is undisturbed except for uses provided for in the Table of Uses, Section 8.(B) of this Ordinance. Grading and revegetating in Zone Two is allowed provided that the health of the vegetation in Zone One is not compromised. Zone Two shall begin at the outer edge of Zone One and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones One and Two shall be 50 feet on all sides of the surface water.

5. Diffuse Flow Requirements

Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow prior to its entry into the buffer and reestablishing vegetation as follows:

1. Concentrated runoff from new ditches or man-made conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone Two of the riparian buffer;
2. Periodic corrective action to restore diffuse flow shall be taken as necessary and shall be designed to impede the formation of erosion gullies; and

As set out in Sections 7.(D) and 8.(B) of this Ordinance, The Zones of the Riparian Buffer and Table of Uses respectively, no new stormwater conveyances are allowed through the buffers except for those specified in the Table of Uses, Section 8.(B) of this Ordinance, addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

H. Potential Uses and Associated Requirements

1. Approval for New Development

City of Mebane shall issue an approval for new development only if the development application proposes to avoid impacts to riparian buffers defined in Section 7.(A) of this Ordinance, or where the application proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

- (a) Determined the activity is exempt from requirements of this Ordinance;
- (b) Received an Authorization Certificate from the City of Mebane pursuant to Section 9.A of this Ordinance;
- (c) For uses designated as Allowable with Mitigation in the Table of Uses in Section 8.(B), received approval of mitigation plan pursuant to Section 9.(C) of this Ordinance; and
- (d) Received a variance pursuant to Section 9.(B).

2. Table of Uses

The following chart sets out potential new uses within the buffer, or outside the buffer with impacts on the buffer, and categorizes them as exempt, allowable, or allowable with mitigation. All uses not categorized as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer or outside the buffer if the use would impact the buffer, unless a variance is granted pursuant to Section 9.(C) of this Ordinance, Variances. The requirements for each category are given in Section 8.(C) of this Section following the Table of Uses.

Use	Exempt *	Allowable *	Allowable with Mitigation*
<p>Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities:</p> <p>Pedestrian access trails that are restricted to the minimum width practicable and do not exceed 4 feet in width of buffer disturbance, and provided that installation and use does not result in removal of trees as defined in this Ordinance and no impervious surface is added to the riparian buffer</p> <p>Pedestrian access trails that exceed 4 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this Ordinance or impervious surface is added to the riparian buffer</p>	X	X	
<p>Airport facilities:</p> <p>Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer</p> <p>Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer</p> <p>Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)¹</p>		X	X
Archaeological activities	X		
Bridges		X	

Use	Exempt *	Allowable *	Allowable with Mitigation*
Canoe Access provided that installation and use does not result in removal of trees as defined in this Ordinance and no impervious surface is added to the buffer.	X		
* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.			
<p>Dam maintenance activities:</p> <p>Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of the existing dam or those covered under the U.S. Army Corps of Engineers Nationwide Permit No. 3</p> <p>Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under the U.S. Army Corps of Engineers Nationwide Permit No.3</p>	X	X	

Use	Exempt *	Allowable *	Allowable with Mitigation*
<p>Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers:</p> <p>New stormwater flows to existing drainage ditches, roadside ditches, and stormwater conveyances provided flows do not alter or result in the need to alter the conveyance and are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies.</p> <p>Realignment of existing roadside drainage ditches retaining the design dimensions, provided that no additional travel lanes are added and the minimum required roadway typical section is used based on traffic and safety considerations.</p> <p>New or altered drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nutrients and attenuate flow before the conveyance discharges through the riparian buffer</p> <p>New drainage ditches, roadside ditches and stormwater conveyances applicable to linear projects that do not provide a stormwater management facility due to topography constraints provided that other practicable BMPs are employed.</p>	<p>X</p>	<p>X</p> <p>X</p>	<p>X</p>

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Driveway crossings of streams and other surface waters subject to this Ordinance:			
Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer	X		
Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer		X	
In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer		X	
In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer			X
Driveway impacts other than crossing of a stream or other surface waters subject to this Ordinance			X
Fences:			
Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Ordinance	X		
Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Ordinance		X	
Fertilizer application: one-time application to establish vegetation	X		
Grading and revegetation in Zone Two provided that diffuse flow and the health of existing vegetation in Zone One is not compromised and disturbed areas are stabilized until they are revegetated.	X		

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Greenway / hiking trails designed, constructed and maintained to maximize nutrient removal and erosion protection, minimize adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practical.		X	
Historic preservation	X		
Maintenance access on modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical. The width and specifications of the travel way shall be only that needed for equipment access and operation. The travel way shall be located to maximize stream shading.		X	
Mining activities: Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Sections 7.(D) and 7.(E) of this Ordinance are established adjacent to the relocated channels Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements of Sections 7.(D) and 7.(E) of this Ordinance are not established adjacent to the relocated channels		X	X
Wastewater or mining dewatering wells with approved NPDES permit	X		
Playground equipment: Playground equipment on single family lots provided that installation and use does not result in removal of vegetation Playground equipment installed on lands other than single-family lots or that requires removal of vegetation	X	X	

Use	Exempt *	Allowable *	Allowable with Mitigation*
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* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Ponds created by impounding streams and not used as stormwater BMPs: New ponds provided that a riparian buffer that meets the requirements of Sections 7.(D) and 7.(E) of this Ordinance is established adjacent to the pond New ponds where a riparian buffer that meets the requirements of Sections 7.(D) and 7.(E) of this Ordinance is NOT established adjacent to the pond		X X	X X
Protection of existing structures, facilities and stream banks when this requires additional disturbance of the riparian buffer or the stream channel		X	
Railroad impacts other than crossings of streams and other surface waters subject to this Ordinance.			X
Railroad crossings of streams and other surface waters subject to this Ordinance: Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X X	X X	X X

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Recreational and accessory structures in Zone Two: Sheds and gazebos in Zone Two, provided they are not prohibited under local water supply ordinance: <ul style="list-style-type: none"> ○ Total footprint less than or equal to 150 square feet per lot. ○ Total footprint greater than 150 square feet per lot. Wooden slatted decks and associated steps, provided the use meets the requirements of Sections 7.(D) and 7.(E) of this Ordinance: <ul style="list-style-type: none"> ○ Deck at least eight feet in height and no vegetation removed from Zone One. ○ Deck less than eight feet in height or vegetation removed from Zone One. 		 X X 	
Removal of previous fill or debris provided that diffuse flow is maintained and vegetation is restored	X		
Road impacts other than crossings of streams and other surface waters subject to this Ordinance			X
Road crossings of streams and other surface waters subject to this Ordinance: Road crossings that impact equal to or less than 40 linear feet of riparian buffer Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	 X 	 	
Road relocation: Relocation of existing private access roads associated with public road projects where necessary for public safety: Less than or equal to 2,500 square feet of buffer impact Greater than 2,500 square feet of buffer impact		 	
* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.			

Use	Exempt *	Allowable *	Allowable with Mitigation*
Stormwater BMPs: Wet detention, bioretention, and constructed wetlands in Zone Two if diffuse flow of discharge is provided into Zone One		X	
Wet detention, bioretention, and constructed wetlands in Zone One			X
Scientific studies and stream gauging	X		
Streambank or shoreline stabilization		X	
Temporary roads, provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation: At the end of five years the restored buffer shall comply with the restoration criteria in Section 9.(C)(7) of this Ordinance: Less than or equal to 2,500 square feet of buffer disturbance Greater than 2,500 square feet of buffer disturbance Associated with culvert installation or bridge construction or replacement.	X		
		X	
		X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
<p>Temporary sediment and erosion control devices, provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Section 9.(C)(7) of this Ordinance:</p> <p>In Zone Two provided ground cover is established within timeframes required by the Sedimentation and Erosion Control Act, vegetation in Zone One is not compromised, and runoff is released as diffuse flow in accordance with Section 7.(E) of this Ordinance.</p> <p>In Zones one and two to control impacts associated with uses approved by the City of Mebane or that have received a variance, provided that sediment and erosion control for upland areas is addressed, to the maximum extent practical, outside the buffer.</p> <p>In-stream temporary erosion and sediment control measures for work within a stream channel that is authorized under Sections 401 and 404 of the Federal Water Pollution Control Act.</p> <p>In-stream temporary erosion and sediment control measures for work within a stream channel.</p>	<p>X</p> <p>X</p>	<p>X</p> <p>X</p>	
<p>Utility, electric, aerial, perpendicular crossings of streams and other surface waters subject to this Ordinance^{2,3,5}:</p> <p>Disturb equal to or less than 150 linear feet of riparian buffer</p> <p>Disturb greater than 150 linear feet of riparian buffer</p>	<p>X</p>	<p>X</p>	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Utility, electric, aerial, other than perpendicular crossings ⁵ : Impacts in Zone Two Impacts in Zone One ^{2,3}		X	X
Utility, electric, underground, perpendicular crossings ^{3,4,5} : Disturb less than or equal to 40 linear feet of riparian buffer Disturb greater than 40 linear feet of riparian buffer	X	X	
Utility, electric, underground, other than perpendicular crossings ⁴ : Impacts in Zone Two Impacts in Zone One ¹	X X		
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Ordinance ^{3,5} : □ Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width Disturb greater than 150 linear feet of riparian buffer	X	X X	X X

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Utility, non-electric, other than perpendicular crossings ^{4,5} ; Impacts in Zone Two Impacts in Zone One ¹	X		X
Vegetation management: Emergency fire control measures provided that topography is restored Mowing or harvesting of plant products in Zone Two Planting vegetation to enhance the riparian buffer Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised Removal of individual trees that are in danger of causing damage to dwellings, other structures or human life, or are imminently endangering stability of the streambank. Removal of individual trees which are dead, diseased or damaged. Removal of poison ivy Removal of invasive exotic vegetation as defined in: <i>Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30</i>	X X X X X X X X		
Vehicular access roads leading to water-dependent structures as defined in 15A NCAC 02B .0202, provided they do not cross the surface water and have minimum practicable width not exceeding ten feet.		X	
Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers.		X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Water supply reservoirs: New reservoirs where a riparian buffer that meets the requirements of Sections 7.(D) and 7.(E) of this Ordinance is established adjacent to the reservoir New reservoirs where a riparian buffer that meets the requirements of Sections 7.(D) and 7.(E) of this Ordinance is not established adjacent to the reservoir		X	X
Water wells Single family residential water wells All other water wells	X	X	
Wetland, stream and buffer restoration that results in impacts to the riparian buffers: Wetland, stream and buffer restoration that requires NC Division of Water Quality approval for the use of a 401 Water Quality Certification Wetland, stream and buffer restoration that does not require Division of Water Quality approval for the use of a 401 Water Quality Certification	X	X	
Wildlife passage structures		X	
Piping of a stream under a permit issued by the US Army Corps of Engineers		X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 8.(C) of this Ordinance.

¹Provided that:

- No heavy equipment is used in Zone One.
- Vegetation in undisturbed portions of the buffer is not compromised.
- Felled trees are removed by chain.
- No permanent felling of trees occurs in protected buffers or streams.
- Stumps are removed only by grinding.
- At the completion of the project the disturbed area is stabilized with native vegetation.
- Zones one and two meet the requirements of Sections 7.(D) and 7.(E)

²Provided that, in Zone One, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternative evaluation by the City of Mebane, as defined in Section 9.(A).

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Riprap shall not be used unless it is necessary to stabilize a tower.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

³Provided that poles or aerial infrastructure shall not be installed within 10 feet of a water body unless the City of Mebane completes a no practical alternative evaluation as defined in Section 9.(A).

⁴Provided that, in Zone One, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the City of Mebane, as defined in Section 9.(A).

Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.

Vegetative root systems shall be left intact to maintain the integrity of the soil.

Stumps shall remain, except in the trench where trees are cut.

Underground cables shall be installed by vibratory plow or trenching.

The trench shall be backfilled with the excavated soil material immediately following cable installation.

No fertilizer shall be used other than a one-time application to re-establish vegetation.

Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.

Measures shall be taken upon completion of construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.

In wetlands, mats shall be utilized to minimize soil disturbance.

⁵Perpendicular crossings are those that intersect the surface water at an angle between 75 degrees and 105 degrees.

3. Uses designated in Section 8.(B) of this Section as exempt, allowable, and allowable with mitigation within a riparian buffer shall have the following requirements:
 - (a) Exempt.
Uses designated as exempt are permissible without authorization by the City of Mebane provided that they adhere to the limitations of the activity as defined in Section 8.(B) of this Section, the Table of Uses. In addition, exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable, including construction, monitoring, and maintenance activities.
 - (b) Allowable.
Uses designated as allowable may proceed provided that there are no practical alternatives to the requested use pursuant to Section 9.(A) of this Section. This includes construction, monitoring, and maintenance activities. These uses require written authorization from the City of Mebane.
 - (c) Allowable with Mitigation.
Uses designated as allowable with mitigation may proceed provided that there are no practical alternatives to the requested use pursuant to Section 9.(A) of this Section and an appropriate mitigation strategy has been approved pursuant to Section 9.(C). These uses require written authorization from the City of Mebane

I. Permits Procedures, Requirements, and Approvals

1. Determination of No Practical Alternatives / Request for Authorization Certificate

- (a) Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a “no practical alternatives” determination to the City of Mebane. The applicant shall certify that the project meets all the following criteria for finding “no practical alternatives”:

- (i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality;
 - (ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality; and
 - (iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.
- (b) The applicant shall also submit at least the following information in support of their assertion of “no practical alternatives”:
- (i) The name, address and phone number of the applicant;
 - (ii) The nature of the activity to be conducted by the applicant;
 - (iii) The location of the activity, including the jurisdiction;
 - (iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;
 - (v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and
 - (vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.
- (c) Within 60 days of a submission that addresses Section 9.(A)(2) , the City of Mebane shall review the entire project and make a finding of fact as to whether the criteria in Section 9.(A)(1) of this Section have been met. A finding of “no practical alternatives” shall result in issuance of an Authorization Certificate. Failure to act within 60 days shall be construed as a finding of “no practical alternatives” and an Authorization Certificate shall be issued to the applicant unless one of the following occurs:
- (i) The applicant agrees, in writing, to a longer period;
 - (ii) The City of Mebane determines that the applicant has failed to furnish requested information necessary to the City of Mebane decision;
 - (iii) The final decision is to be made pursuant to a public hearing; or

- (iv) The applicant refuses access to its records or premises for the purpose of gathering information necessary to the City of Mebane's decision.
- (d) The City of Mebane may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of this Ordinance.
- (e) Any appeals of determinations regarding Authorization Certificates shall be referred to the Director of the Division of Water Quality, c/o the 401 Oversight Express Permitting Unit, or its successor. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

2. Variances

- (a) Requirements for Variances.

Persons who wish to undertake prohibited uses may pursue a variance. The City of Mebane may grant minor variances. For major variances, the City of Mebane shall prepare preliminary findings and submit them to the Division of Water Quality, 4 01 Oversight Express Permitting Unit, or its successor for approval by the Environmental Management Commission. The variance request procedure shall be as follows:

 - (i) For any variance request, the City of Mebane shall make a finding of fact as to whether there are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. A finding of practical difficulties or unnecessary hardships shall require that the following conditions are met:
 - a. If the applicant complies with the provisions of this Ordinance, he/she can secure no reasonable return from, nor make reasonable use of, his/her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the City of Mebane shall consider whether the variance is the minimum possible deviation from the terms of this Ordinance that shall make reasonable use of the property possible;
 - b. The hardship results from application of this Ordinance to the property rather than from other factors such as deed restrictions or other hardship;
 - c. The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, such that compliance with provisions of this ordinance would not allow reasonable use of the property;

- d. The applicant did not cause the hardship by knowingly or unknowingly violating this Ordinance;
 - e. The applicant did not purchase the property after the effective date of this Ordinance, and then request a variance; and
 - f. The hardship is rare or unique to the applicant's property.
- (ii) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and this Ordinance and preserves its spirit; and
 - (iii) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(b) Minor Variances

A minor variance request pertains to activities that will impact only Zone Two of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Section 9.(A)(1) through Section 9.(A)(3) by the City of Mebane pursuant to G.S. 153A-Article 18, or G.S. 160D—705(d). The City of Mebane may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Request for appeals to decisions made by the City of Mebane shall be made in writing to the Director of the Division of Water Quality c/o the 401 Oversight Express Permitting Unit, or its successor. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(c) Major Variances

A major variance request pertains to activities that will impact any portion of Zone One or any portion of both Zones One and Two of the riparian buffer. If the City of Mebane has determined that a major variance request meets the requirements in Section 9.(B)(1) through 8.(C)(3), then it shall prepare a preliminary finding and submit it to the NC Environmental Management Commission c/o the Division of Water Quality, 401 Oversight Express Permitting Unit, or its successor, for approval. Within 90 days after receipt by the City of Mebane, the Commission shall review preliminary findings on major variance requests and take one of the following actions: approve, approve with conditions and stipulations, or deny the request. Appeals from a Commission decision on a major variance request are made on judicial review to Superior Court.

3. Mitigation

1. This item shall apply to persons who wish to impact a riparian buffer in the Jordan watershed when one of the following applies:
 - (i) A person has received an Authorization Certificate pursuant to Section 9.(A) of this Ordinance for a proposed use that is designated as “allowable with mitigation;” or
 - (ii) A person has received a variance pursuant to Section 9.(B) of this Ordinance and is required to perform mitigation as a condition of a variance approval.
2. Issuance of the Mitigation Approval

The City of Mebane shall issue a mitigation approval upon determining that a proposal meets the requirements set out in this Ordinance. The approval shall identify at a minimum the option chosen, the required and proposed areas, and either the mitigation location or the offset payment amount as applicable.

3. Options for Meeting the Mitigation Requirement

The mitigation requirement may be met through one of the following options:

- (i) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0269 (Jordan Water Supply Nutrient Strategy: Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program) contingent upon acceptance of payments by the NC Ecosystem Enhancement Program, or to a private mitigation bank that complies with banking requirements of the US Army Corps of Engineers, currently set out at <http://www.saw.usace.army.mil/WETLANDS/Mitigation/mitbanks.html> or from the US Army Corps of Engineers, P.O. Box 1890, Wilmington, NC, 28402-1890, and the applicable trading criteria in Rule 15A NCAC 02B .0273;
 - (ii) Donation of real property or of an interest in real property pursuant to Section 9.(C)(6) of this Ordinance; or
 - (iii) Restoration or enhancement of a non-forested riparian buffer pursuant to the requirements of Section 9.(C)(7) of this Ordinance.
4. The Area of Mitigation

The City of Mebane shall determine the required area of mitigation, which shall apply to all mitigation options identified in Section 9.(C)(3) of this Ordinance and as further specified in the requirements for each option set out in this Section, according to the following:

- (i) The impacts in square feet to each zone of the riparian buffer shall be determined by the City of Mebane by adding the following:

- a. The area of the footprint of the use causing the impact to the riparian buffer;
 - b. The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use; and
 - c. The area of any ongoing maintenance corridors within the riparian buffer associated with the use.
- (ii) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Section 9.(4)(a) of this Ordinance to each zone of the riparian buffer:
- a. Impacts to Zone One of the riparian buffer shall be multiplied by three;
 - b. Impacts to Zone Two of the riparian buffer shall be multiplied by one and one-half; and
 - c. Impacts to wetlands within Zones One and Two of the riparian buffer that are subject to mitigation under 15A NCAC 2H .0506 shall comply with the mitigation ratios in 15A NCAC 2H .0506.

5. The Location of Mitigation

For any option chosen, the mitigation effort shall be located within the same subwatershed of the Jordan watershed, as defined in 15A NCAC 02B.0262, and the same distance from the Jordan Reservoir as the proposed impact, or closer to the Reservoir than the impact, and as close to the location of the impact as feasible. Alternatively, the applicant may propose mitigation anywhere within the same subwatershed of the Jordan watershed, as defined in 15A NCAC 02B.0262, provided that the mitigation proposal accounts for differences in delivery of nutrients to the affected arm of Jordan Reservoir resulting from differences between the locations of the buffer impact and mitigation. Additional location requirements for the property donation option are enumerated in Section 9.(C)(6)(c)(i) of this Ordinance.

6. Donation of Property

Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

- (i) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0269. The value of the property interest shall be determined by an appraisal performed in accordance with Section 9.(C)(6)(d)(iv) of this Ordinance. The donation shall satisfy the mitigation determination if

the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to 15A NCAC 02B .0269, the applicant shall pay the remaining balance due.

- (ii) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.
- (iii) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:
 - a. In addition to the location requirements of Section 9.(C)(5) of this Ordinance, the property shall be located within an area that is identified as a priority for restoration in, or is otherwise consistent with the goals of, the *Basinwide Wetlands and Riparian Restoration Plan for the Cape Fear River Basin* developed by NC Division of Water Quality pursuant to G.S. 143-214.10;
 - b. The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration as defined in Section 9.(7)(d) of this Ordinance;
 - c. The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water;
 - d. The size of the restorable riparian buffer on the property to be donated shall equal or exceed the area of mitigation responsibility determined pursuant to Section 9.(C)(4) of this Ordinance;
 - e. Restoration shall not require removal of man-made structures or infrastructure;
 - f. The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;
 - g. The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and transaction costs;
 - h. The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended;

- i. The property shall not contain any hazardous substance or solid waste;
 - j. The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations;
 - k. The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort; and
 - l. The property shall not have any encumbrances or conditions on the transfer of the property interests.
- (iv) At the expense of the applicant or donor, the following information shall be submitted to the City of Mebane with any proposal for donations or dedications of interest in real property:
- a. Documentation that the property meets the requirements laid out in Section 9.(C)(6)(c) of this Ordinance;
 - b. US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements;
 - c. A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609;
 - d. A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734; and
 - e. A title certificate.

J. Riparian Buffer Restoration or Enhancement

Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

1. The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:
 - (a) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Section 9.(C)(4) of this Ordinance; or
 - (b) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Section 9.(C)(4) of this Ordinance;
2. The location of the riparian buffer restoration or enhancement shall comply with the requirements in Section 9.(C)(5) of this Ordinance;
3. The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water;
4. Enhancement and restoration shall both have the objective of establishing a forested riparian buffer according to the requirements of this Item. Enhancement shall be distinguished from restoration based on existing buffer conditions. Where existing trees are sparse, that is greater than or equal to 100 trees per acre but less than 200 trees per acre, a buffer may be enhanced. Where existing woody vegetation is absent, that is less than 100 trees per acre, a buffer may be restored;
5. The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of Section 9.(A) of this Ordinance. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the City of Mebane. The restoration or enhancement plan shall contain the following:
 - (a) A map of the proposed restoration or enhancement site;
 - (b) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity;
 - (c) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer;
 - (d) A fertilization plan; and
 - (e) A schedule for implementation;
6. Within one year after the City of Mebane has approved the restoration or enhancement plan, the applicant shall present proof to the City of Mebane that

the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of both the State's and the City of Mebane riparian buffer protection program;

7. The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions; and
8. The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

K. Compliance and Enforcement

1. Site Inspections

(a) Agents, officials, or other qualified persons authorized by the City of Mebane may periodically inspect riparian buffers to ensure compliance with this ordinance.

(b) Notice of the right to inspect shall be included in the letter of approval of each variance and buffer authorization.

(c) Authority to Enter Property and Conduct Investigations and Inspections

Authorized agents, officials or other qualified persons shall have the authority, upon presentation of proper credentials, to enter and inspect at reasonable times any property, public or private, for the purpose of investigating and inspecting the site of any riparian buffer. No person shall willfully resist, delay, or obstruct an authorized representative, employee, or agent of the City of Mebane, while that person is inspecting or attempting to inspect a riparian buffer nor shall any person obstruct, hamper or interfere with any such representative while in the process of carrying out their official duties. The City of Mebane shall have the power to conduct such investigations as deemed reasonably necessary to carry out the duties as prescribed in this Ordinance.

(d) Notice of Violation

(i) If it is determined that a person has failed to comply with the requirements of this Ordinance, or rules, or orders adopted or issued pursuant to this Ordinance, a notice of violation shall be served upon that person. The notice may be served by any means authorized under G.S. 1A-1, rule 4. In the event service cannot be accomplished by registered or certified mail, it may be accomplished in any manner provided in rule (4)j of the North Carolina Rules of Civil Procedure.

(ii) The notice shall specify the violation and inform the person of the actions that need to be taken to comply with this Ordinance, or rules or orders adopted pursuant to this Ordinance. The notice shall direct the person to correct the violation within a specified reasonable time. The notice shall inform the person that any person who violates or fails to act in accordance with any of the provisions of this Ordinance or rules or orders adopted or issued pursuant to this Ordinance is subject to the civil and criminal penalties and other enforcement actions as provided in this Ordinance.

(e) Power to Require Statements

The City of Mebane 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 activities.

2. Civil Penalties

(a) Assessment of Penalties

Any person who violates or fails to act in accordance with any of the provisions of this Ordinance or rules or orders adopted or issued pursuant to this Ordinance shall be subject to a civil penalty. A civil penalty for a violation may be assessed in an amount not to exceed ten thousand dollars (\$10,000) per day. If any violation for which a penalty may be assessed is continuous, a civil penalty may be assessed for each day of the violation in an amount not to exceed twenty-five thousand dollars (\$25,000) per day for as long as the violation occurs. Each day of a continuing violation shall constitute a separate violation under Section 10.(B)(1).

(b) Notice of Civil Penalty Assessment

The governing body of the City of Mebane shall provide written notice of the civil penalty amount and the basis for the assessment to the person assessed. The notice of civil penalty assessment shall be served by any means authorized under G.S. 1A-1, Rule 4, and shall direct the violator to either pay the assessment or contest the assessment, within thirty (30) days after receipt of the notice of assessment by written demand for a hearing.

(c) Hearing

A hearing on the civil penalty shall be conducted by the City of Mebane City Council within 30 days after the date the written demand for the hearing is received by the City of Mebane City Council. The board conducting the hearing shall make its recommendation to the governing body of the City of Mebane within 30 days after the date of the hearing.

(d) Final Decision.

The governing body shall issue a final decision on the civil penalty within 30 days of the recommended decision. A copy of the final decision shall be served on the violator by any means authorized under G.S. 1A-1, Rule 4.

(e) Appeal of Final Decision.

Appeal from the final decision of the governing body shall be to the Superior Court of the county in which the violation occurred. Any appeal must be filed with thirty days of receipt of the final decision. A copy of the appeal must be served on the (City manager/County board/other appropriate person) by any means authorized under G.S. 1A-1, Rule 4.

(f) Demand for Payment of Penalty

An assessment that is not contested is due when the violator is served with a notice of assessment. The civil penalty must be paid within 30 days of the assessment, if not appealed, or within 30 days after the conclusion of the administrative or judicial review of the assessment. If payment is not received within 30 days after demand for payment is made, the City of Mebane may institute a civil action to recover the amount of the assessment. The civil action may be brought in the Superior Court where the violation occurred, or the violator's residence or principal place of business is located. Such civil actions must be filed within three (3) years of the date the assessment was due.

(g) Use of Penalties

[Civil penalties collected pursuant to this Ordinance shall be credited to the general fund of the City of Mebane as nontax revenue.]

3. Criminal Penalties

- (a) A violation of the provisions of this Ordinance or a rule or order adopted pursuant to this ordinance shall be punished as provided for in the North Carolina General Statutes for the violation of local ordinances. See. E.g., Section 14-4 of the North Carolina General Statutes. Violation may also be punishable under the provisions of Section 143-215.6B of the North Carolina General Statutes.

4. Injunctive Relief

(a) Civil Action in Superior Court

Whenever the governing body of the City of Mebane 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, it 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 City of Mebane for injunctive relief to restrain the violation or threatened violation. The action shall be brought in the Superior Court of Alamance County.

(b) Order to Cease Violation

Upon determination by a court that an alleged violation is occurring or is threatened, the court shall enter any order or judgment that is necessary to abate the violation, to ensure that restoration is performed, or to prevent the threatened violation. The institution of an action for injunctive relief under this section shall not relieve any party to the proceedings from any civil or criminal penalty prescribed for violations of this Ordinance.

5. Compliance with Requirements

Any person engaged in new activities as defined by this Ordinance who fails to meet the requirements of this Ordinance shall be deemed in violation of this Ordinance.

L. Severability

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

M. Effective Date

This Ordinance will become effective upon approval by the NC Environmental Management Commission and adoption by the City of Mebane City Council.

N. Revisions to this Ordinance

The City of Mebane shall review any revisions to the Model Local Riparian Buffer Protection Ordinance made by the Environmental Management Commission and, within 60 days of receipt of the recommended revisions, submit draft amendments to the Commission for its consideration and comments. Within 90 days after receipt of the Commissions' comments, the City of Mebane will incorporate amendments into this ordinance.

5-6 Flood Hazard Overlay District Requirements

5-6.1 Statutory Authorization, Purpose, Objectives, Legal Status Provisions

- A. The Flood Hazard Overlay District (FHO), as established in Section 3-1, D, 2, (d), is designed for the purpose of protecting people and property from the hazards of flooding in accordance with the authority provided in Part 6, Article 21 of Chapter 143; Article 8 of Chapter 160A; and Chapter 160D of the North Carolina General Statutes.
- B. Flood prone areas within the jurisdiction of the City of Mebane are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities and by the occupancy in flood prone areas of uses vulnerable to floods or other hazards.
- C. It is the purpose of Section 5-6 to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:
 - 1. Restrict or prohibit uses that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion, flood heights or velocities;
 - 2. Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
 - 3. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;
 - 4. Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and
 - 5. Prevent or regulate the construction of flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands.
- D. The objectives of Section 5-6 are:
 - 1. To protect human life and health;
 - 2. To minimize expenditure of public money for costly flood control projects;
 - 3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
 - 4. To minimize prolonged business losses and interruptions;

5. To minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
6. To minimize damage to private and public property due to flooding;
7. To make flood insurance available to the community through the National Flood Insurance Program;
8. To maintain the natural and beneficial function of the floodplains;
9. To help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
10. To ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

E. Legal Status Provisions associated with Section 5-6 are:

1. This Section in part comes forward by re-enactment of some of the provisions of the Flood Damage Prevention Ordinance enacted March 7, 1994 as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this Section shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of the City of Mebane enacted on March 7, 1994, as amended, which are not reenacted herein are repealed.

The date of the initial Flood Damage Prevention Ordinance for Alamance County is August 15, 1994. The date of the initial Flood Damage Prevention Ordinance for Orange County is March 2, 1981.

2. Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a floodplain development permit has been granted by the Floodplain Administrator or his or her authorized agents before the time of passage of this Section; provided, however, that when construction is not begun under such outstanding permit within a period of six (6) months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this Section.
3. Section 5-6 as amended November 6, 2017, shall become effective November 17, 2017.

5-6.2 Definitions

- A. Unless otherwise specifically provided, or unless clearly required by the context, the words and phrases defined below shall have the meaning

indicated when used throughout Section 5-6.

1. **Accessory Structure (Appurtenant Structure).** A structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.
2. **Addition (to an existing building).** An extension or increase in the floor area or height of a building or structure.
3. **Alteration of a watercourse.** A dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.
4. **Appeal.** A request for a review of the Zoning Administrator's interpretation of any provision of this Section.
5. **Area of Shallow Flooding.** A designated Zone AH or AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one to three feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.
6. **Area of Special Flood Hazard.** See 'Special Flood Hazard Area (SFHA)'.
7. **Basement.** Any area of the building having its floor subgrade (below ground level) on all sides.
8. **Base Flood.** The flood having a one percent chance of being equaled or exceeded in any given year.
9. **Base Flood Elevation (BFE).** A determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a 'Special Flood Hazard Area', it may be obtained from engineering studies available from a Federal, State, or other source using FEMA approved engineering methodologies. This elevation, when combined with the 'Freeboard', establishes the 'Regulatory Flood Protection Elevation'.
10. **Building.** See 'Structure'.
11. **Chemical Storage Facility.** A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or

- chemically reactive products.
12. **Design Flood.** See “Regulatory Flood Protection Elevation.”
 13. **Development.** 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.
 14. **Development Activity.** 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.
 15. **Digital Flood Insurance Rate Map (DFIRM).** 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.
 16. **Disposal.** As defined in NCGS 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.
 17. **Elevated Building.** A non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.
 18. **Encroachment.** 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.
 19. **Existing building and existing structure.** Any building and/or structure for which the “start of construction” commenced before the initial effective date of the floodplain management regulations adopted by the community.
 20. **Existing Manufactured Home Park or Manufactured Home Subdivision.** 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 original effective date of the floodplain management regulations adopted by the community.
 21. **Flood or Flooding.** 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 of runoff of surface waters from any source.
22. **Flood Insurance.** Means the insurance coverage provided under the National Flood Insurance Program.
23. **Flood Insurance Rate Map (FIRM).** 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.
24. **Flood Insurance Study (FIS).** 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.
25. **Flood Prone Area.** See 'Floodplain'.
26. **Floodplain.** Any land area susceptible to being inundated by water from any source.
27. **Floodplain Administrator.** See Zoning Administrator.
28. **Floodplain Development Permit.** Any type of permit (zoning or special use permit) that is required in conformance with the provisions of Section 5-6 prior to the commencement of any development activity.
29. **Floodplain Management.** 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.
30. **Floodplain Management Regulations.** This Section and other land development ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power which control development in flood-prone areas. This term describes federal, state or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.
31. **Floodproofing.** 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.

32. **Flood-resistant material.** 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.
33. **Floodway.** The channel of a river or other watercourse, including the area above a bridge or culvert when applicable, and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.
34. **Floodway encroachment analysis.** 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 models.
35. **Flood Zone.** 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.
36. **Freeboard.** 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, bridge openings, and the hydrological effect of urbanization on the watershed. The Base Flood Elevation plus the freeboard establishes the 'Regulatory Flood Protection Elevation'.
37. **Functionally Dependent Facility.** A facility which cannot be used for its intended purpose unless it is located in close proximity to water, such as 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.
38. **Hazardous Waste Facility.** As defined in NCGS 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.
39. **Highest Adjacent Grade (HAG).** The highest natural elevation of the

ground surface, prior to construction, immediately next to the proposed walls of the structure.

40. **Historic Structure.** Any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a local inventory of historic landmarks in communities with a 'Certified Local Government (CLG) Program'; or
- (d) Certified as contributing to the historical significance of a historic district designated by a community with a 'Certified Local Government (CLG) Program'.

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

41. **Letter of Map Change (LOMC).** 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.

42. **Light Duty Truck.** 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.
43. **Lowest Adjacent Grade (LAG).** The lowest elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.
44. **Lowest Floor.** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Section.
45. **Manufactured Home.** 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'.
46. **Manufactured Home Park or Subdivision.** A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

47. **Market Value.** 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.
48. **New Construction.** Structures for which the 'start of construction' commenced on or after the effective date of the original version of the community's Flood Damage Prevention Ordinance and includes any subsequent improvements to such structures.
49. **Non-Encroachment Area.** 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 (1) foot as designated in the Flood Insurance Study report.
53. **Post-FIRM.** Construction or other development for which the 'start of construction' occurred on or after the effective date of the initial Flood Insurance Rate Map for the area.
54. **Pre-FIRM.** Construction or other development for which the 'start of construction' occurred before the effective date of the initial Flood Insurance Rate Map for the area.
55. **Principally Above Ground.** At least 51% of the actual cash value of the structure is above ground.
56. **Public Safety and/or Nuisance.** 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.
57. **Recreational Vehicle (RV).** A vehicle, which is:
 - (a) Built on a single chassis;
 - (b) 400 square feet or less when measured at the largest horizontal projection;
 - (c) Designed to be self-propelled or permanently towable by a light duty truck;
 - (d) Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use; and
 - (e) Is fully licensed and ready for highway use.

For the purpose of this section, “Tiny Homes/Houses” and Park Models that do not meet the items listed above are not considered Recreational Vehicles and should meet the standards of and be permitted as Residential Structures.

58. **Reference Level.** The top of the lowest floor for structures within Special Flood Hazard Areas designated as Zones A, AE, AH, AO, A99.
59. **Regulatory Flood Protection Elevation.** 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 feet of freeboard. In ‘Special Flood Hazard Areas’ where no BFE has been established, this elevation shall be at least two feet above the highest adjacent grade.
60. **Remedy a Violation.** 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 section or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.
61. **Riverine.** Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.
62. **Salvage Yard.** Any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.
63. **Solid Waste Disposal Facility.** As defined in NCGS 130A-290 (a) (35), any facility involved in the disposal of solid waste.
64. **Solid Waste Disposal Site.** As defined in NCGS 130A-290 (a) (36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.
65. **Special Flood Hazard Area (SFHA).** The land in the floodplain subject to a one percent or greater chance of being flooded in any given year, as determined Section 5-6.
66. **Start of Construction.** Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor

does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

67. **Structure.** A walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.
68. **Substantial Damage.** Damage of any origin sustained by a structure during any one-year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. See definition of 'substantial improvement'.
69. **Substantial Improvement.** Any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost equals or exceeds 50 percent of the market value of the structure before the 'start of construction' of the improvement. This term includes structures which have incurred 'substantial damage', regardless of the actual repair work performed. The term does not, however, include either:
 - (a) Any correction of existing violations of State or community health, sanitary, or safety code specifications which have been identified by the 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.
70. **Technical Bulletin and Technical Fact Sheet.** A FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at Section 60.3. The bulletins and fact sheets are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.

It should be noted that Technical Bulletins and Technical Fact Sheets provide guidance on the minimum requirements of the NFIP regulations. State or community requirements that exceed those of the NFIP take precedence. Design professionals should contact the community officials to determine whether more restrictive State or local regulations apply to the building or site

in question. All applicable standards of the State or local building code must also be met for any building in a flood hazard area.

71. **Temperature Controlled.** Having the temperature regulated by a heating and/or cooling system, built-in or appliance.
72. **Variance.** A grant of relief from the requirements of this Section.
73. **Violation.** 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 5-6 is presumed to be in violation until such time as that documentation is provided.
74. **Water Surface Elevation (WSE).** The height, in relation to NAVD 1988, of floods of various magnitudes and frequencies in the floodplains of riverine areas.
75. **Watercourse.** 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.
76. **Zoning Administrator.** The individual appointed to administer and enforce the floodplain management regulations of this Section.

5-6.3 General Provisions

A. Applicability

The provisions of Section 5-6 shall apply to all Special Flood Hazard Areas within the planning and zoning jurisdiction of the City of Mebane.

B. 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 DFIRM panels, for Alamance County dated November 17, 2017, and for Orange County dated November 17, 2017 which are adopted by reference and declared to be a part of this Section. Future revisions to the FIS and DFIRM panels that do not change flood hazard data within the jurisdictional authority of the City of Mebane are also adopted by reference and declared a part of this section. Subsequent Letter of Map Revisions (LOMRs) and/or Physical Map Revisions (PMRs) shall be adopted within 3 months.

C. Compliance

No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this Section

and other applicable regulations.

D. Abrogation and Greater Restrictions

The provisions of this Section are not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where the provisions of this Section and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

E. Interpretation

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

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

F. Warning and Disclaimer of Liability

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

G. Violations and Penalties

Violations of the provisions of Section 5-6 or failure to comply with any of its requirements shall be processed in accordance with the procedures delineated in Article 11, Enforcement and Judicial Review. Penalties and remedies for violations shall be as provided for in Article 11, Sections 11-4 and 11-5. Nothing herein contained shall prevent the City of Mebane from taking such other lawful action as is necessary to prevent or remedy any violation of the provisions of Section 5-6.

5-6.4 Plans, Application, and Permit Requirements

A. Designation of Floodplain Administrator

The Zoning Administrator is hereby appointed to administer and implement the provisions of this section. In instances where the Zoning Administrator receives assistance from others to complete tasks to administer and implement this section, the Zoning Administrator shall be responsible for the coordination and community's overall compliance with the National Flood Insurance Program and the provisions of this section.

B. General

A zoning or special use permit, as applicable, shall be required in conformance with the provisions of this Section prior to the commencement of any development activities within Special Flood Hazard Areas determined in accordance with Section 5-6.3, B.

C. Application Requirements

Applications for a zoning permit or special use permit which include property that is located within a Special Flood Hazard Area shall be submitted to the Zoning Administrator and shall include the following information:

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:
 - (a) 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;
 - (b) The boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in Section 5-6.3, B or a statement that the entire lot is within the Special Flood Hazard Area;
 - (c) Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Section 5-6.3, B;
 - (d) The boundary of the floodway(s) or non-encroachment area(s) as determined in Section 5-6.3, B;
 - (e) The Base Flood Elevation (BFE) where provided as set forth in Section 5-6.3, B; Section 5-6.5, K and L; or Section 5-6.7, C;
 - (f) The old and new location of any watercourse that will be altered or relocated as a result of proposed development;
 - (g) Certification of the plot plan by a registered surveyor or professional engineer.

2. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:
 - (a) Elevation in relation to NAVD 1988 of the proposed reference level (including basement) of all structures;
 - (b) Elevation in relation to NAVD 1988 to which any non-residential structure in Zones A, AE, AH, AO, A99 will be flood-proofed; and
 - (c) Elevation in relation to NAVD 1988 to which any proposed utility systems will be elevated or floodproofed;
3. If floodproofing, a Floodproofing Certificate (FEMA Form 086-0-34) with supporting data and an operational plan that includes, but is 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 Section are met. These details include but are not limited to:
 - (a) 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
 - (b) Openings to facilitate equalization of hydrostatic flood forces on walls in accordance with Section 5-6.7, B, 4, (d), when solid foundation perimeter walls are used in Zones A, AE, AH, AO, A99.
5. Usage details of any enclosed areas below the regulatory flood protection elevation.
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. Copies of all other Local, State and Federal permits required prior to floodplain development permit issuance (Wetlands, Endangered Species, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.)
8. Documentation for placement of Recreational Vehicles and/or Temporary Structures, when applicable, to ensure Section 5-6.7, B, 6 and 7 are met.
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.

D. Permit Data Requirements

The following information shall be provided on the approved permit to ensure compliance with the provisions of Section 5-6:

1. A complete description of the development to be permitted under the floodplain development permit (e.g. house, garage, pool, septic, bulkhead, cabana, pier, bridge, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials, etc.).
2. The Special Flood Hazard Area determination for the proposed development per available data specified in Section 5-6.3, B.
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, AE, AH, AO, A99.
8. Limitations of below BFE enclosure uses, if applicable (i.e., parking, building access and limited storage only).
9. A statement that all materials below BFE/RFPE must be flood resistant materials.

E. Certification Requirements

1. Elevation Certificates:

- (a) An Elevation Certificate (FEMA Form 086-0-33) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Zoning Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. The Zoning Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make

required corrections shall be cause to deny a floodplain development permit.

- (b) An Elevation Certificate (FEMA Form 086-0-33) is required after the reference level is established. Within seven calendar days of establishment of the reference level elevation, it shall be the duty of the permit holder to submit to the Zoning Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. Any work done within the seven-day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Zoning 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 cause to issue a stop-work order for the project.

- (c) A final as-built Elevation Certificate (FEMA Form 086-0-33) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Zoning Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Zoning 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. The Finished Construction Elevation Certificate certifier shall provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and measure at least 3" x 3".

2. Floodproofing Certificate

- (a) If non-residential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 086-0-34), with supporting data and an

operational plan, is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Zoning Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Zoning Administrator shall review the certificate data and 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.

- (b) A final Finished Construction Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the issuance of a Certificate of Compliance/Occupancy. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certificate 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 Certificate of Occupancy. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to deny a Certificate of Compliance/Occupancy.
3. If a manufactured home is placed within Zones A, AE, AH, AO, or A99 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per Section 5-6.7, B, 3, (b).
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 permit.
5. Certification Exemptions. The following structures, if located within Zones A, AE, AH, AO, or A99, are exempt from the

elevation/floodproofing certification requirements specified in items 1 and 2 above of this subsection:

- a. Recreational Vehicles meeting requirements of Section 5-6.7, B, 6, (a);
- b. Temporary Structures meeting requirements of Section 5-6.7, B, 7; and
- c. Accessory Structures less than 150 square feet or less than \$3,000 and meeting requirements of Section 5-6.7, B, 8.

F. Determinations for existing buildings and structures

For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

1. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
3. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
4. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the NC Building Code and this section is required.

5-6.5 Duties and Responsibilities of the Zoning Administrator

The duties of the Zoning Administrator as they relate to the administration and enforcement of the provisions of Section 5-6 shall include, but not be limited to:

- 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 Section 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, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- 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 not diminished.
- E. Prevent encroachments into floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of Section 5-6.7, E are met.
- F. Obtain actual elevation (in relation to NAVD 1988) of the reference level (including basement) and all attendant utilities of all new or substantially improved structures, in accordance with Section 5-6.4, E.
- G. Obtain actual elevation (in relation to NAVD 1988) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with Section 5-6.4, E.
- H. Obtain actual elevation (in relation to NAVD 1988) of all public utilities in accordance with Section 5-6.4, E.
- I. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Section 5-6.4, E and Section 5-6.7, B, 2.
- J. Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this Section.
- K. When Base Flood Elevation (BFE) data has not been provided in accordance with Section 5-6.3, B obtain, review, and reasonably utilize any Base Flood Elevation (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 5-6.7, C, 2, (b), in order to administer the provisions of this Section.
- L. When Base Flood Elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with Section 5-6.3, B obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a Federal, State, or other source in

order to administer the provisions of this Section.

- M. When the lowest ground elevation of a parcel or structure in a Special Flood Hazard Area is above the Base Flood Elevation, advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from FEMA. Maintain a copy of the Letter of Map Amendment (LOMA) issued by FEMA in the floodplain development permit file.
- N. Permanently maintain all records that pertain to the administration of Section 5-6 and make these records available for public inspection.
- O. Make on-site inspections of work in progress. As the work pursuant to a permit progresses, the Zoning 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 Zoning 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 Section, the Zoning Administrator may order the work to be immediately stopped. 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 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 Zoning Administrator may revoke and require the return of the 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, 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.
- R. Make periodic inspections throughout all special flood hazard areas within the jurisdiction of the community. The Zoning 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 5-6.3, G.
- 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 Section 5-6.3, B, 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-F) and Letters of Map Revision (LOMR).

5-6.6 Variance Procedures

Requests for variances from the Flood Hazard Overlay District requirements of Section 5-6 shall be reviewed by the board of adjustment in accordance with the procedures outlined in Section 8-2, B. Any person aggrieved by the decision of the board of adjustment may appeal such decision in accordance with the provisions of Section 11- 7, Judicial Review.

5-6.7 Provisions for Flood Hazard Reduction

A. General Standards

In all Special Flood Hazard Areas, the following provisions are required:

1. All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the structure.
2. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
3. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.
4. All new electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall be located at or above the RFPE or designed and installed to prevent water from entering or accumulating within the components during the occurrence of the base flood. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.
 - (a) Replacements part of a substantial improvement, electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.
 - (b) Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.
5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters.
7. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
8. Nothing in this Section shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this Section and located totally or partially within the floodway, non-encroachment area, or stream setback, provided there is no additional encroachment below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this Section.
9. New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted, except by variance as specified in Section 5-6.6, I. 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 according to Section 5-6.4, E.
10. All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.
11. All subdivision proposals and other development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
12. All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
13. All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
14. When a structure is partially located in a Special Flood Hazard Area, the entire structure shall meet the requirements for new construction and substantial improvements.
15. When a structure is located in 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 BFE shall apply.

B. Specific Standards

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth in Section 5-6.3, B or Section 5-6.5, K and L, the following provisions, in addition to Section 5-6.7, A, are required:

1. Residential Construction

New construction and substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section 5-6.2.

2. Non-Residential Construction

New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section 5-6.2. Structures located in Zones A, AE, AH, AO, A99 may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AH and AO Zones, the floodproofing elevation shall be in accordance with Section 5-6.7, F. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Zoning Administrator as set forth in Section 5-6.4, E along with the operational and maintenance plans.

3. Manufactured Homes:

- (a) New or 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 5-6.2.
- (b) Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by engineer certification, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to NCGS 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six 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 inches in height, an engineering certification is required.

- (c) All enclosures or skirting below the lowest floor shall meet the requirements of Section 3-5.7, B, 4.
- (d) An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Zoning Administrator and the local Emergency Management coordinator.

4. Elevated Buildings

Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

- (a) Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;
- (b) Shall not be temperature controlled.
- (c) Shall be constructed entirely of flood resistant materials below the regulatory flood protection elevation; and
- (d) Shall include, in Zones A, AE, AH, AO, A99 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 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.

5. Additions/Improvements:

- (a) Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
 - (1) Not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.
 - (2) A substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
- (b) 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.
- (c) Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
 - (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.

- (d) Where an independent perimeter load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and only the addition must comply with the standards for new construction.

6. Recreational Vehicles

Recreational vehicles shall either:

(a) Temporary Placement

- (1) Be on site for fewer than 180 consecutive days; or
- (2) 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

- (b) Permanent Placement. Recreational vehicles that do not meet the limitations of Temporary Placement shall meet all the requirements for new construction.

7. Temporary Non-Residential Structures

Prior to the issuance of a permit for a temporary structure, the applicant must submit to the Zoning 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 Zoning Administrator for review and written approval:

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

8. Accessory Structures

When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

- (a) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
- (b) Accessory structures shall not be temperature-controlled;
- (c) Accessory structures shall be designed to have low flood damage potential;
- (d) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
- (e) Accessory structures shall be firmly anchored in accordance with Section 5-6.7, A, 1;
- (f) All service facilities such as electrical shall be installed in accordance with Section 5-6.7, A, 4; and
- (g) Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with Section 5-6.7, B, 4 (c).

An accessory structure with footprint less than 150 square feet, or that is a minimal investment of \$3,000 or less, and 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 5-6.4, D.

9. Tanks

When gas and liquid storage tanks are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

- (a) Underground Tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;
- (b) Above-ground elevated tanks in flood hazard areas shall be elevated to or above the Regulatory Flood Protection Elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation

requirements of the applicable flood hazard area;

- (c) Above-ground not elevated tanks that do not meet the elevation requirements of Section B (2) of this section shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the design flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed, installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions.
- (d) Tank inlets and vents. Tank inlets, fill openings, outlets and vents shall be:
 - (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.

10. Other Development

- (a) 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 5-6.7, E of this section.
- (b) Retaining walls sidewalks and driveways in regulated floodways and NEAs. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of Section 5-6.7, E of this section.
- (c) Roads and watercourse crossings in regulated floodways and NEAs. Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated floodways shall meet the limitations of Section 5-6.7, E of this section.

C. Standards for Floodplains without Established Base Flood Elevations

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in Section 5-6.3, B, where no Base Flood Elevation (BFE)

data has been provided by FEMA, the following provisions, in addition to Sections 5-6.7, A and B, shall apply:

1. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of twenty feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
2. The BFE used in determining the regulatory flood protection elevation shall be determined based on one of the following criteria set in priority order:
 - (a) If 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 Section and shall be elevated or floodproofed in accordance with standards in Section 5-6.5, K and L.
 - (b) When floodway or non-encroachment data is available from a Federal, State, or other source, all new construction and substantial improvements within floodway and non-encroachment areas shall also comply with the requirements of Section 5-6.7 B and E.
 - (c) All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five acres or has more than fifty lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference per Section 5-6.3, B to be utilized in implementing this Section.
 - (d) 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 to or above the regulatory flood protection elevation, as defined in Section 5-6.2.

D. Standards for Riverine Floodplains with BFE but without Established Floodways or Non-Encroachment Areas

Along rivers and streams where BFE data is provided but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

1. Standards outlined in Section 5-6.7, A and B; and
2. Until a regulatory floodway or non-encroachment area is designated, no

encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

E. Standards for Floodways and Non-Encroachment Areas

Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in Section 5-6.3, B. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions, in addition to standards outlined in Section 5-6.7, A and B, shall apply to all development within such areas:

1. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless it has been demonstrated that:
 - (a) 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 Zoning Administrator prior to issuance of a permit, or
 - (b) A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.
2. If Section 5-6.7, E, 1 is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this Section.
3. No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:
 - (a) The anchoring and the elevation standards of Section 5-6.7, B, 3; and
 - (b) The no encroachment standard of Section 5-6.7, E, 1.

F. Standards for Areas of Shallow Flooding (Zone AO)

Located within the Special Flood Hazard Areas established in Section 5-6.3, B, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Section 5-6.7, A, all new construction and substantial improvements shall meet the following requirements:

1. The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of two feet, above the highest adjacent grade; or at least two feet above the highest adjacent grade plus a freeboard of two feet if no depth number is specified.
2. Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in subsection 1 above 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 as per Section 5-6.4, D and Section 5-6.7, B, 2.
3. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

G. Standards for Areas of Shallow Flooding Zone (ZONE AH)

Located within the Special Flood Hazard Areas established in Article 3, Section B, are areas designated as shallow flooding areas. These areas are subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are one (1) to three (3) feet. Base Flood Elevations are derived from detailed hydraulic analyses are shown in this zone.

In addition to Section 5-6.7, A and B, all new construction and substantial improvements shall meet the following requirements:

1. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.
2. All drainage features have a natural floodplain but not all are shown on the FEMA through the FEMA Flood Insurance Rate Maps (FIRMs). The City may require additional flood study's or restrictions on these Non-FEMA regulated floodplains. Standards for NON-FEMA regulated areas will include a flood study that complies with the City's Storm Sewer Design Manual for developments that are 5 acres or more in size, that are adjacent to, traversed by, or cross a drainageway or storm drainage system that has 5 acres of more of contributing drainage area. Finished floor elevations are to be a minimum of 24" higher than the established flood elevation for the 1% annual storm event. This requirement may be waived by the City Engineer if, in his professional opinion, the development will have minimal impact on flood levels.

Amended June 7, 2021

5-6.8 Effect upon Outstanding Permits

Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a permit has been granted by the Zoning Administrator or his or her authorized agents before the time of passage of this Ordinance; provided, however, that when construction is not begun under

such outstanding permit within a period of six months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this Ordinance.

5-7 Soil Erosion and Sedimentation Control

- A.** No final site plan approval and no final plat approval for subdivisions may be given with respect to any development that would cause land disturbing activity requiring prior approval of an erosion and sedimentation control plan by the Land Quality Section, Division of Land Resources, NC Department of Environment and Natural Resources under NCGS 113A-57(4) unless the Land Quality Section has certified to the City, either that:
 - 1. An erosion control plan has been submitted to and approved by the Land Quality Section; or
 - 2. The Land Quality Section has examined the preliminary plans for the development and it reasonably appears that an erosion control plan can be approved upon submission by the developer of more detailed construction or design drawings. However, in this case, construction of the development may not begin (and no building permits may be issued) until the Land Quality Section approves the erosion control plan.

- B.** For purposes of this Section, 'land disturbing activity' means any use of the land by any person in residential, industrial, educational, institutional or commercial development, highway and street construction and maintenance that results in a change in the natural cover or topography and that may cause or contribute to sedimentation except activities that are exempt under NCGS 113A-52(6)). Sedimentation occurs whenever solid particulate matter, mineral or organic, is transported by water, air, gravity, or ice from the site of its origin.

5-8 (Reserved) [amended, June 6, 2022]