

STAFF REPORT

Amendments to the Unified Development Ordinance

April 23, 2024 Town Council Meeting



Requested by Water Resources Staff:

1. **Amendments to Sec. 6.1 *Watershed Protection Overlay Districts* in order to incorporate the Neuse River Basin stormwater regulations as required by 15A NCAC 02B .0711 *Neuse Nutrient Strategy - Stormwater* and update the riparian buffer mitigation requirements to be consistent with that in 15A NCAC 02B .0295 *Mitigation Program Requirements for Protection and Maintenance of Riparian Buffers*. Amendments to Sec. 8.2.7 *Fences, Walls, and Berms* and Sec. 11.4.4 *Civil Penalties* are proposed to update Section references related to the proposed changes in Sec. 6.1. Also included are amendments to Sec. 12.2 *Terms Defined* in order to update the definition of “Built-Upon Area” to be consistent with that required by NC General Statute 143-214.7 and have Sec. 6.1 refer to Sec. 12.2 to avoid a duplication of the definition.**

Background: In the re-adoption of the Neuse Nutrient Strategy Stormwater Rules by the North Carolina Department of Environmental Quality (NCDEQ) on April 1, 2020, the Town of Apex became a “named” community within the Neuse River Basin. During their November 9, 2023 meeting, the NC Environmental Management (EMC) reviewed the Town’s draft UDO revisions to incorporate the Neuse stormwater rules subsequently approved the changes. NCDEQ has also revised the riparian buffer mitigation rules to allow for more alternatives to satisfy buffer mitigation when a project requires it.

6.1 WATERSHED PROTECTION OVERLAY DISTRICTS

6.1.1 Purpose, Authority, and Enactment

The purpose of the Watershed Protection Overlay Districts is to ensure the availability of public water supplies at a safe and acceptable level of water quality, to ensure protection of public water supplies for recreational and aesthetic purposes, to minimize sedimentation of streams, and to protect the environment, health, and general welfare of present and future residents of the Town and the Triangle Region under the authority set forth in Sec. 1.2 *Authority* of this Ordinance and in NCGS 160A-174. In addition, the Legislature of the State of North Carolina has, in Chapter 143, Article 21 of the North Carolina General Statutes, entitled Water and Air Resources, directed local governmental units to adopt regulations designed to promote the public health, safety, and general welfare pursuant to the more specific requirements set forth in 15A NCAC 2B .0100, 15A NCAC 2B .0200, and in the Jordan Water Supply Watershed Nutrient Management Strategy Rules, 15A NCAC 2B .0262 through .0273 and .0311(p), **and the Neuse Nutrient Strategy: Stormwater Rule, 15A NCAC 02B .0731**. Also pursuant to the Federal Water Pollution Control Act of 1972, federal Phase II Stormwater rules promulgated under it, and NCGS 143-215.1 and S.L. 2006-246, the Town is required to obtain a Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater management for its municipal separate storm sewer system and to adopt, among other things, 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. (Additional specific purposes may be found in the Swift Creek Land Management Plan and the 2045 Land Use Map Update.) In furtherance of these goals and under such authorities, the Town of Apex promulgated this Sec. 6.1 *Watershed Protection Overlay Districts*.

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6.1.3 Exemptions

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A) ~~Development~~ **Single-family, duplex residential and related recreational development and expansion of development** that cumulatively disturbs less than one (1) acre and is not part of a larger common plan of development;

B) Development of an individual single-family or duplex residential lot that is located within the Neuse River Watershed, is not part of a larger common plan of development or sale, and does not result in a greater than five (5) percent built-upon area on the lot;

C) Commercial, industrial, institutional, multi-family, or local government development that cumulatively disturbs less than one-half (0.5) acre, does not expand existing structures on a parcel, and is not part of a larger common plan of development;

D) Commercial, industrial, institutional, multi-family, or local government development that cumulatively disturbs less than one-half (0.5) acre and does expand existing structures on a parcel, but does not result in a cumulative built upon area for the parcel exceeding that allowed in Sec. 6.1.6.B.1.a;

~~B)E)~~ Redevelopment that cumulatively disturbs less than ~~one (1) acre~~ **the thresholds established in Sec. 6.1.3.A through D** and is not part of a larger common plan or development or sale;

~~C)F)~~ Development Existing as of the Effective Date of this Section

...

~~D)G)~~ *Expansions to Existing Development*

Any expansion to a lot or project that is exempt from the requirements of Sec. 6.1 pursuant to Sec. 6.1.3.~~C)F)~~ *Development Existing as of the Effective Date of this Section* and disturbs greater than ~~one (1) acre~~ **the thresholds established in 6.1.3.A through D** must comply with the requirements of Sec. 6.1. The built-upon area of the existing development shall be included in the built-upon area calculations for any proposed expansion to any such lot or project; **but only the net increase in built-upon area is subject to stormwater treatment requirements.** Provided, however, that the built-upon area of any school facility owned by the Wake County Public School System or any qualified nonpublic school that is exempt from the requirements of Sec. 6.1 pursuant to Sec. 6.1.3.~~C)F)~~ *Development Existing as of the Effective Date of this Section* is not required to be included in the built-upon area calculations for any expansion to such existing development. For purposes of this Section, "school facility" means any building, structure or other facility used by the Wake County Public School System or any qualified nonpublic school for educational purposes. For purposes of this Section, "qualified nonpublic school" means a school having an enrollment of 100 or more students, and that has one or more of the characteristics set out in NCGS 115C-555.

~~E)H)~~ *Developments and Uses Exempted by State Law*

...

~~F)I)~~ *Complete Applications*

...

6.1.6 Low-Density Development Option

A) *General*

All development within both the Primary Watershed Protection District and the Secondary Watershed Protection District shall be designed to comply with the standards of the low-density development option unless the Technical Review Committee or Town Council, as applicable, approves a plan of development pursuant to the procedures and standards for the high-density development option, or unless a minor or major variance is approved pursuant to Sec. 6.1.13 ~~14~~ **Modifications by Variance.**

...

6.1.7 High-Density Development Option

...

B) *Within the Primary Watershed Protection District*

...

3) *Stormwater Control Measures (SCMs)*

All stormwater control measures shall meet the requirements in Sec. 6.1.12 ~~13~~ **Stormwater Control Measures.**

For water quality purposes, SCMs shall be used to collect and hold the runoff from the first one-(1) inch of rainfall. This runoff volume shall be released in two (2) to five (5) days in accordance with Sec. 6.1.12 ~~13~~.

...

...

7) Nitrogen Control Requirements.

For development located within the Neuse River Watershed the nitrogen control requirements in Sec. 6.1.12 shall be met. The developer shall submit an electronic version of the most current approved SNAP Tool for such calculations developed by the N.C. Dept. of Environmental Quality, Division of Water Resources at the first construction drawing submittal.

C) *Within the Secondary Watershed Protection District*

...

5) Nitrogen Control Requirements.

For development located within the Neuse River Watershed the nitrogen control requirements in Sec. 6.1.12 shall be met. The developer shall submit an electronic version of the most current approved SNAP Tool for such calculations developed by the N.C. Dept. of Environmental Quality, Division of Water Resources at the first construction drawing submittal.

6.1.9 Definition of Built-Upon Area

Built-upon area is defined in Sec. 12.2 Terms Defined. For the purposes of complying with the standards and requirements of the Watershed Protection Overlay Districts, calculation of the built-upon area within the proposed development shall include, but not be limited to, all existing public and private streets, proposed public streets, sidewalks, driveways, rooftops, parking lots, patios, and all other impervious and partially impervious surfaces, including CABC and gravel within the development. The water area of swimming pools and wooden slatted decks shall not be included in the calculation of the built-upon area.

6.1.11 Riparian Buffers

- ...
- G) *Uses Permitted Within the Riparian Buffer*
- ...
- 2) Within Zone 3 of a Riparian Buffer in the Neuse River Basin and All Other Remaining Areas of Both the Primary Watershed Protection District and the Secondary Watershed Protection District
- ...
- b) 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 Sec. 6.1.13~~14~~ below.

Table 6.1.11.G.1

Use	Exempt*	Allowable*	Allowable with Mitigation*
...			
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Ordinance ^{3,5,Z} :	X		
• 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		X	
• 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		X	
• 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			X
• Disturb greater than 150 linear feet of riparian buffer			X
...			

...

⁷Utility maintenance corridor shall have the same meaning as a utility easement.

- 3) Requirements for Categories of Uses
- ...
- c) ALLOWABLE WITH MITIGATION. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Sec. 6.1.11.G.4 Determination of “No Practical Alternatives” and an appropriate mitigation strategy has been approved pursuant to Sec. 6.1.14~~15~~ below. These uses require written authorization from the Town of Apex.
- ...
- 5) Mitigation
- ...
- b) Obtain approval for a mitigation proposal pursuant to Sec. 6.1.14~~15~~.
- ...

6.1.12 Nitrogen Control Requirements.

A) Nutrient Loading Rate Targets.

- 1) The development shall meet either a nitrogen stormwater loading rate target of 3.6 pounds per acre per year, or the “runoff volume match” as defined in 15A NCAC 02H .1002.
- 2) The development area used for nutrient calculation and stormwater requirements include the site area less any existing built-upon-area. The development density used for determining stormwater requirements is the amount of built-upon-area subject to Sec. 6.1 at development completion divided by the development area.
- 3) The developer shall determine the nitrogen load and loading rate generated from the development area without stormwater control measures (SCMs) and determine the needed nitrogen load reduction to meet nutrient targets by using the most current approved SNAP Tool for such calculations developed by the N.C. Dept. of Environmental Quality, Division of Water Quality.

B) Methods to Meet Nutrient Control Requirements.

Development subject to Sec. 6.1 shall meet nitrogen loading target through a combination of the following methods:

- 1) Developments may reduce export of nitrogen through any combination of engineered SCMs treating runoff on the property, in an approved offsite regional SCM, or through acquisition of permanent nutrient offset credits. The developer shall calculate the nitrogen reduction provided by these controls using the most current approved SNAP Tool for such calculations developed by the N.C. Dept. of Environmental Quality, Division of Water Resources.
- 2) Proposed development undertaken by a local government solely as a public road expansion or public sidewalk project, or proposed development subject to the jurisdiction of the Surface Transportation Board, may meet nitrogen reduction needs for a development entirely through the use of permanent nitrogen offset credits pursuant to the Nutrient Offset Credit Trading Rule, 15A NCAC 02B.0703.

C) Use of Permanent Nutrient Offset Credits.

- 1) Sufficient permanent nutrient offset credits to meet development nutrient reduction needs not provided by engineered SCMs serving the development shall be acquired prior to approval of a development plan. The Stormwater Engineering Manager shall issue an approval letter for the development that documents the needed nitrogen credits and where the development is located relative to the Neuse Rules’ geographic requirements. All permanent nutrient offset credits permitted pursuant to Sec. 6.1 shall meet the requirements of 15A NCAC 02B.0703.
- 2) Permanent nutrient offset credits shall be acquired pursuant to N.C.G.S. 143-214.26 and 15A NCAC 02B.0703 prior to the start of construction of the development project.

3) A developer subject to Sec. 6.1 may acquire permanent nutrient offset credits through of the following methods:

- a) A private nutrient bank;**
- b) Offsite offset provided by the developer and approved by the Stormwater Engineering Manager; or**
- c) Payment into the Riparian Buffer Restoration Fund established by NCGS 143-214.21.**

6.1.126.1.13 Stormwater Control Measures (SCMs)

...
F)

Compliance Prior to Receiving Plat Approval or Certificate of Occupancy

Subject to Subsection G. below, prior to approval of a Final Plat (with respect to a subdivision), issuance of a certificate of occupancy (with respect to a site plan), or commencement of a use for any development upon which a SCM is required, the owner shall have installed the improvements required by this Article and shall have received the approval of the Stormwater Engineering Manager with respect to the improvements. Upon installation of the required improvements, the Stormwater Engineering Manager or designee shall inspect the SCM and the owner shall demonstrate that the required structure is in place, that it is operational, that it complies with all relevant portions of Sec. 6.1.~~1213~~ *Stormwater Control Measures (SCMs)*, and shall submit to the Stormwater Engineering Manager actual “as built” plans for the structure, which shall include the information listed in Article 6: *Overlay Districts*, and Section 1.06(c) Stormwater Drainage System of the *Town of Apex Standard Specifications and Standard Details*, certifying completion of the same.

G) *Performance Guarantees*

...

3) *Duration of performance guarantee.* Performance guarantees shall run until the requirements of Sec. 6.1.~~1213~~ have been satisfied and the Stormwater Engineering Manager has given final approval of the required SCM(s).

4) *Default.* Failure of the owner to construct, repair, and if necessary, reconstruct the SCM(s) as required by Sec. 6.1.~~1213~~ is a default. Upon such default, the Town may obtain and use all or any portion of the performance guarantee necessary to complete the improvements.

...

H) *Maintenance and Maintenance Guarantees*

1) *Duty to maintain and maintenance and defects guarantee.* The owner is responsible for all maintenance and repair of improvements required by this Article. In addition to the Operation and Maintenance Agreement required by Sec. 6.1.~~1213~~.D, with respect to a subdivision, a maintenance and defects guarantee shall be provided by the owner in the amount equal to 25% of the total construction cost of the SCM to ensure proper maintenance and repair prior to conveyance of the improvements to a property owners association. The maintenance and defects guarantee shall be submitted to the Town of Apex prior to SCM final approval. The owner’s estimate of this amount shall be

submitted and is subject to review, modification, and approval by the Stormwater Engineering Manager. Such estimate shall be signed and sealed by a licensed North Carolina professional engineer, landscape architect, or land surveyor. Guarantees required by this Section may be in the form of a surety bond enforceable at the sole discretion of the Town and in the form prescribed by the Town, a letter of credit that meets the specifications of Sec. 7.5.17 *Irrevocable Letter of Credit in Lieu of Surety Bond or Other Guarantee of Performance*, certified check drawn in favor of the Town, or cash deposited with the Town.

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~~6.1.13~~**6.1.14** Modifications by Variance

A) *General*

Requests for minor and major variances from the standards of the Watershed Protection Overlay Districts shall be made to the Board of Adjustment, except for variance requests pertaining to impacts within Zone 1 and/or Zone 2 of a riparian buffer within the Neuse River Basin which shall be made to the Director of the NC DEQ as specified below in Sec. 6.1.~~13~~**14**.B.1.b and B.2.c. Due to certain process differences in State statutes or rules for decision making and appeals based on which basin or watershed a proposed project is located, a separate variance provision is set forth below for each of the following basins or watersheds: (i) the Neuse River Basin, (ii) the Jordan Lake Watershed portion of the Cape Fear River Basin and (iii) the Cape Fear River Basin outside of the Jordan Lake Watershed.

Sec 6.1.~~13~~**14**.F sets forth an alternative variance process that is available for, but not required to be used by, an applicant seeking a variance from Sec. 6.1 density requirements for a project located in the Secondary Watershed Protection District and/or from Town Buffer requirements. Town Buffers and State Buffers are defined in Sec. 6.1.~~14~~**15**.C. The purpose of this alternative variance process is to provide additional design flexibility for a project that provides a unique or additional benefit to the Town or surrounding area that would not be available from a traditional development located in areas within the Town or its ETJ where the applicable requirements of Sec. 6.1 are not part of a State authorized program, or where separate State rules do not apply.

All applications for variances made to the Board of Adjustment shall be reviewed by the Board of Adjustment, which shall approve, approve with conditions (which may include mitigation requirements), or disapprove the variance after a public hearing noticed pursuant to Sec. 2.2.11 Public Notification, and conducted pursuant to Sec. 2.2.19 *Quasi-judicial Public Hearing Procedures*, based on the applicable standards in Sec. 6.1.~~13~~**14**.E or F.

B) *Variances for Activities in the Neuse River Basin*

1) *Minor Variances*

a) *Minor Variance Requests that are to be Submitted to the Board of Adjustment.*

...

(iii) It pertains to activities that will impact Zone 3 of a riparian buffer located within the Neuse River Basin. However, if the impacted area is also within the Neuse River Basin's Primary Watershed Protection District and along perennial waters

within a high- density development option area, the area of proposed impacts in the buffer also shall not exceed five (5%) percent of the buffer area. If such proposed activity within the Neuse River Basin requiring a variance for Zone 3 also includes impacts to Zone 2 that require a variance, then as specified in Sec. 6.1.~~13~~14.B.1.b.i. the Director of the NC DEQ shall consider the variance request as it pertains to Zone 2 impacts, and a separate variance request shall be submitted to the Board of Adjustment pertaining to Zone 3 impacts.

...

b) *Minor Variance Requests that are to be Submitted to the NC DEQ.* A variance request for an activity in the Neuse River Basin shall be considered minor and a decision on such request shall be made by the NC DEQ when:

(i) It pertains to activities that will impact Zone 2 of a riparian buffer located within the Neuse River Basin. However, if the impacted area is also within the Neuse River Basin's Primary Watershed Protection District and along perennial waters within a high density development option area, the proposed impacts to the buffer also shall not exceed five (5%) percent of the buffer area. If such proposed activity within the Neuse River Basin requiring a variance for Zone 2 also includes impacts to Zone 3 that require a variance, then the Director of the NC DEQ shall consider the variance request as it pertains to Zone 2 impacts, and as specified in Sec. 6.1.~~13~~14.B.1.a.iii a separate variance request shall be submitted to the Board of Adjustment pertaining to Zone 3 impacts.

...

2) *Major Variances*

a) *Major Variance Requests Submitted to the Board of Adjustment That Will Be Decided by the Board of Adjustment.*

...

An appeal of a major variance decision made by the Board of Adjustment within the scope of this Sec. 6.1.~~13~~14.B.2.a shall be subject to review in Superior Court by proceedings in the nature of certiorari in accordance with NCGS 160D-406(h).

b) *Major Variance Requests Submitted to the Board of Adjustment That Will Be Forwarded to the Environmental Management Commission Upon Approval.*

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Following a public hearing on an application within the scope of this Sec. 6.1.~~13~~14.B.2.b, the Board of Adjustment shall provide its recommendation to the Environmental Management Commission if the Board of Adjustment determines that the variance should be granted. After the Board of Adjustment reviews and recommends approval of the application for the major variance, the Planning Director shall prepare and forward to the Environmental Management Commission for consideration the following materials relevant to the application:

...

C) *VariANCES for Activities in the Jordan Lake Watershed Portion of the Cape Fear River Basin*

...

2) *Major VariANCES*

- a) *Major VariANCE Requests Submitted to the Board of Adjustment That Will Be Decided by the Board of Adjustment.*

...

An appeal of a major variance decision made by the Board of Adjustment within the scope of this Sec. 6.1.~~1314~~.C.2.a. shall be subject to review in Superior Court by proceedings in the nature of certiorari in accordance with NCGS 160D-406(h).

...

- c) Following a public hearing on an application within the scope of this Sec. 6.1.~~1314~~.C.2.b, the Board of Adjustment shall provide its recommendation to the Environmental Management Commission if the Board of Adjustment determines that the variance should be granted. After the Board of Adjustment reviews and recommends approval of the application for the major variance, the Planning Director shall prepare and forward to the Environmental Management Commission for consideration the following materials relevant to the application:

...

D) *VariANCES for Activities in the Cape Fear River Basin outside of the Jordan Lake Watershed*

...

2) *Major VariANCES*

- a) *Major VariANCE Requests that are to be Submitted to the Board of Adjustment.*

...

Appeals of major variance decisions made by the Board of Adjustment within the scope of this Sec. 6.1.~~1314~~.D.2 shall be subject to review in Superior Court by proceedings in the nature of certiorari in accordance with NCGS 160D-406(h).

E) *Standards*

- 1) *General.* The standards set forth in Sec. 6.1.~~1314~~.E.2-3 shall be applicable to all variance requests submitted to the Board of Adjustment, except for a request submitted pursuant to the alternative variance process in Sec. 6.1.~~1314~~.F.

...

F) *Alternative Process and Standards for Variance From Density Requirements in Secondary Watershed Protection District and/or From Impacts to Town Buffers*

- 1) An applicant seeking a variance from the density requirements in Sec. 6.1, which may include stormwater management requirements, for a project located in the Secondary Watershed Protection District, and/or from buffer requirements applicable to a Town Buffer as defined in Sec. 6.1.~~1415~~.C.1, may elect to, but is not required to, seek such variance pursuant to the process and standards set forth in this Sec. 6.1.~~1314~~.F. The purpose of this alternative variance process is

to provide additional design flexibility for a project that provides a unique or additional benefit to the Town or surrounding area that would not be available from a traditional development in areas where the applicable Ordinance requirements are not part of a State authorized program or where separate State rules do not apply.

...

- 4) Prior Approvals Required Before Submitting a Variance Request Under Sec. 6.1.~~13~~14.F.
 - a) Prior to submitting a variance request to the Board of Adjustment pursuant to this Sec. 6.1.~~13~~14.F, the applicant shall first have obtained all required permits and approvals for the proposed development from the DEQ and/or US Army Corps of Engineers, as may be applicable, with regard to any proposed dredging or filling of surface waters within the proposed development, and with regard to any proposed impacts to State Buffers in the Neuse River Basin (i.e. Zone 1 or Zone 2) or in the Cape Fear River Basin outside of the Jordan Lake Watershed (i.e. Zone 1).
 - (i) Although the Board of Adjustment may approve a variance request for impacts to Zone 1 of a riparian buffer in the Cape Fear River Basin outside of the Jordan Lake Watershed pursuant to the variance process in Sec. 6.1.~~13~~14.D.2, advance DEQ approval will be required for such impacts to Zone 1 of a riparian buffer in the Cape Fear River Basin outside of the Jordan Lake Watershed if the impacts are part of a project for which a variance is being sought pursuant to this Sec. 6.1.~~13~~14.F.
 - b) If the proposed project will impact any State Buffer in the Jordan Lake Watershed (i.e. Zone 1 or Zone 2) then, prior to submitting a variance request to the Board of Adjustment under this Sec. 6.1.~~13~~14.F for the remainder of the project, the applicant shall first submit a separate variance request to the Board of Adjustment pursuant to the applicable process and standards set forth in Sec. 6.1.~~13~~14.C and E pertaining to such impacts to Zone 1 and/or Zone 2, and the applicant shall have obtained approval of this request. Pursuant to Sec. 6.1.~~13~~14.C.1.iii a minor variance request pertaining to Zone 2 of a buffer in the Jordan Lake Watershed will be determined by the Board of Adjustment. Pursuant to Sec. 6.1.~~13~~14.C.2.b.iii, a major variance request pertaining to Zone 1, or Zone 1 and 2, of a buffer in the Jordan Lake Watershed shall first be considered by the Board of Adjustment, and the Board of Adjustment shall provide its recommendation to the Environmental Management Commission for final decision if the Board determines that the variance should be granted.
- 5) An applicant for a variance who is electing to proceed pursuant to this Sec. 6.1.~~13~~14.F shall clearly state that intent in the application and shall provide written confirmation with the application that all prior approvals required pursuant to Sec. 6.1.~~13~~14.F.4 above have been obtained, or that no such approvals are required.

- 6) The application shall then be reviewed by the Board of Adjustment, which shall approve, approve with conditions (which may include mitigation requirements), or disapprove the variance after a public hearing noticed pursuant to Sec. 2.2.11 Public Notification, and conducted pursuant to Sec. 2.2.19 Quasi-judicial Public Hearing Procedures, based on the standards in Sec. 6.1.13~~14~~.F.2 and 3.

...

6.1.14~~6.1.15~~ Mitigation for Riparian Buffers

A) *Applicability*

- 1) This Section applies to persons who wish to impact a riparian buffer within the Town or its ETJ when one of the following applies:
...
 - b) The person has received a variance pursuant to Sec. 6.1.13~~14~~ and is required to perform mitigation as a condition of a variance approval.
- 2) The mitigation provisions of this Sec. 6.1.14~~15~~ apply to all buffer requirements in the Town or its ETJ, except that in the area of the Town or its ETJ in the Neuse River Basin the buffer mitigation requirements for Zones 1 and 2 shall be administered by the NC DEQ.

B) *Issuance of the Mitigation Approval*

The Town shall issue a mitigation approval upon determining that a proposal meets the requirements set out in this Sec. 6.1.14~~15~~. The approval shall identify at a minimum the option chosen for meeting the mitigation requirement, the required area of mitigation, ~~and either the mitigation location or the offset payment amount as applicable,~~ **and the water quality benefits to be provided by the mitigation site. For each mitigation site proposed by an applicant under 6.1.15.G or 6.1.15.H, the following criteria shall be met:**

- 1) **The location of the buffer mitigation site shall comply with the requirements of 6.1.15.D and E.**
- 2) **The mitigation proposal shall include a commitment to provide:**
 - a) **a perpetual conservation easement or similar preservation mechanism to ensure perpetual stewardship that protects the mitigation site's nutrient removal and other water quality functions;**
 - b) **a non-wasting endowment or other dedicated financial surety to provide for the perpetual land management and hydrological maintenance of lands and maintenance of structures as applicable; and**
 - c) **financial assurance in the form of a completion bond, credit insurance, letter of credit, escrow, or other vehicle acceptable to the Town payable to, or for the benefit of, the Town in an amount sufficient to ensure that the property is secured in fee title or by easement, and that planting or construction, monitoring and maintenance are completed as necessary to meet success criteria as specified in the**

approved mitigation plan. This financial assurance obligation shall not apply to the NC Division of Mitigation Services (DMS).

- 3) Diffuse flow of runoff shall be maintained in the riparian buffer. Any existing impervious cover or stormwater conveyances such as ditches, pipes, or drain tiles shall be eliminated and the flow converted to diffuse flow. If the applicant determines that elimination of existing stormwater conveyances is not feasible, then they shall include a justification and shall provide a delineation of the watershed draining to the stormwater outfall and the percentage of the total drainage by area treated by the riparian buffer with the mitigation plan specified in 6.1.15.G. and H. for Town approval. During mitigation plan review and approval, the Town may reduce credit proportionally.
- 4) Sewer easement within the buffer. If the proposed mitigation site contains a sewer easement in Zone 1, that portion of the sewer easement within Zone 1 shall not be suitable for buffer mitigation credit. If the proposed mitigation site contains a sewer easement in Zone 2, the portion of the sewer easement in Zone 2 may be suitable for buffer mitigation credit if:
 - a) the applicant or mitigation provider restores or enhances the forested buffer in Zone 1 adjacent to the sewer easement;
 - b) the sewer easement is required to be maintained in a condition that meets the vegetative requirements of the collection system permit; and
 - c) diffuse flow is provided across the entire buffer width.
- 5) The applicant shall provide a site specific credit/debit ledger to the Town at regular intervals as specified in the mitigation plan approval or mitigation banking instrument once credits are established and until they are exhausted.
- 6) Buffer mitigation credit, nutrient offset credit, wetland mitigation credit, and stream mitigation credit shall be accounted for in accordance with the following:
 - a) Buffer mitigation used for buffer mitigation credit shall not be used for nutrient offset credits;
 - b) Buffer mitigation credit shall not be generated within wetlands that provide wetland mitigation credit required by 15A NCAC 02H .0506; and
 - c) Buffer mitigation credit may be generated on stream mitigation sites as long as the width of the restored or enhanced riparian buffer meets the requirements in Table 6.1.15.G.1.

- C) *Options for Meeting the Mitigation Requirements*
The mitigation requirement may be met through one of the following options:

- 1) *State Buffers.* The mitigation requirements for State Buffers (defined herein as buffers required by the State laws and/or rules, or approved by the State as a State authorized program) may be met through one of ~~the~~ options ~~a), b), or c)~~ below. More specifically, State Buffers are: the 50-foot buffer required in the Neuse River Basin area of the Town and its ETJ; the 50-foot buffer required in the Jordan Lake Watershed area of the Town and its ETJ; the 30-foot buffer required by Phase 2 stormwater rules throughout the Town and its ETJ; the 30-foot buffer required adjacent to perennial waters in the Primary Watershed Protection District for developments utilizing the low-density option; and the 100-foot buffer required adjacent to perennial waters in the portion of the Primary Watershed Protection District within the Neuse River Basin for developments utilizing the high-density option. All other buffers in the Town and its ETJ regulated by Sec. 6.1 are referred to as “Town Buffers.”
 - a) ~~Payment of a compensatory mitigation fee either (i) to the State Riparian Buffer Restoration Fund pursuant to State rules applicable to the location of the State Buffer that is lost, contingent upon acceptance of payments by the NC Ecosystem Enhancement Program a~~ **compensatory buffer mitigation bank pursuant to Sec. 6.1.15.I,** or (ii) ~~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 State rules applicable to the location of the impacted State Buffer~~ **the Riparian Buffer Restoration Fund pursuant to Sec. 6.1.15.J. Payment shall conform to the requirements of N.C.G.S. 143-214.20;**
 - b) ~~Donation of real property or of an interest in real property pursuant to Sec. 6.1.1415.F.; or~~
 - c) ~~Restoration or enhancement of a non-forested riparian buffer pursuant to the requirements of Sec. 6.1.1415.G.~~
 - d) Alternative buffer mitigation pursuant to the requirements of Sec. 6.1.15.H; or**
 - e) Other buffer mitigation approved as a condition of a variance approval.**

- 2) *Town Buffers.* The mitigation requirement for Town Buffers may be met through one of the following options.
 - a) **Alternative buffer mitigation pursuant to the requirements of Sec. 6.1.15.H.** ~~Construction of an alternative measure or combination of measures that reduce nutrient loading as well or better than the riparian buffer that is lost, that is located in the same river basin as the riparian buffer that is lost, and that is approved by the Town. Such measures may include stormwater control measures and other means of capturing and controlling nutrients and other pollutants and shall be located on the site of the riparian buffer that is lost, if practicable, or as close to that location as is practicable;~~

- b) Payment of a compensatory mitigation fee either: (i) **to a compensatory buffer mitigation bank pursuant to Sec. 6.1.15.I, (ii) to the Riparian Buffer Restoration Fund pursuant to Sec. 6.1.15.J, or (iii) to a Town Riparian Buffer Restoration Fund established by the Town, if such fund is established and available at the time, and such fee shall be calculated using the same fee per square foot or acre as established in the State rules for a buffer in the same basin or watershed as the Town Buffer at issue, but the applicable multiplier to determine the required area of mitigation shall be determined pursuant to Sec. 6.1.1415.D.2. Payment shall conform to the requirements of N.C.G.S. 143-214.20, or (ii) to a private mitigation bank that complies with banking requirements of the US Army Corps of Engineers, currently as 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 State rules applicable to the location of the State Buffer that is lost;**
- c) Donation of real property, or of an interest in real property, pursuant to Sec. 6.1.1415.F.; or
- d) Restoration or enhancement of a non-forested riparian buffer pursuant to the requirements of Sec. 6.1.1415.G.; or
- e) **Other buffer mitigation approved as a condition of a variance approval.**

D) *The Area of Mitigation*

The Town shall determine the required area of mitigation for all mitigation options identified above in Sec. 6.1.1415.C and as further specified in the requirements for each option set out in this Sec. 6.1.1415, according to the following:

- ...
 - 2) The required area of mitigation shall be determined by applying the following multipliers to the area of the impacts determined according to Sec. 6.1.1415.D.1. for each zone of the riparian buffer:
 - ...
 - d) Impacts to wetlands within Zones 1 and 2 of the riparian buffer that are subject to mitigation under 15A NCAC 02H .0506 shall comply with the mitigation ratios in 15A NCAC 02H .0506; **and shall be deducted from buffer mitigation area.**

3) Mitigation activities shall generate riparian buffer mitigation units in accordance with Table 6.1.15.D.1 below:

Table 6.1.15.D.1

<u>Mitigation Activity</u>	<u>Square Feet of Mitigation Buffer</u>	<u>Riparian Buffer Mitigation Units Generated</u>
<u>Restoration Site</u>	<u>1</u>	<u>1</u>
<u>Enhancement Site</u>	<u>2</u>	<u>1</u>
<u>Preservation Site on Non-Subject Urban Streams</u>	<u>3</u>	<u>1</u>
<u>Preservation Site on Subject Urban Streams</u>	<u>3</u>	<u>1</u>
<u>Preservation Site on Non-Subject Rural Streams</u>	<u>5</u>	<u>1</u>
<u>Preservation Site on Subject Rural Streams</u>	<u>10</u>	<u>1</u>

E) *The Location of Mitigation of Buffer Impacts*

- 1) *State Buffers.* For any option chosen for mitigation of State Buffer impacts, ~~the mitigation effort~~ **the following locational multipliers shall be applied to the area of mitigation, determined according to Sec. 6.1.15.D.2, based on location of the proposed mitigation site relative to that of the proposed impact site.** ~~located within the same subwatershed where the impacted property is located and the same distance or closer to the closest public water supply reservoir as the proposed impact, and as close to the location of the impact as feasible. Alternatively, the applicant may propose mitigation anywhere within the Town's corporate limits or ETJ provided that the mitigation proposal accounts for differences in delivery of nutrients to the affected reservoir resulting from differences between the locations of the buffer impact and mitigation. Additional location requirements for the property donation option are enumerated below in Sec. 6.1.14.F.3.a.~~
 - a) **Mitigation within the 12-digit Hydraulic Unit Code (HUC) shall be multiplied by 0.75;**
 - b) **Mitigation within the eight-digit HUC shall be multiplied by one (1); and**
 - c) **Outside of the eight-digit HUC shall be multiplied by two (2).**
- 2) *Town Buffers.* For any option chosen for mitigation of Town buffer impacts, the mitigation effort shall be ~~located within the same river basin where the impacted property is located~~ **the same as that for State Buffers in Sec. 6.1.15.E.1.** Additional location requirements for the property donation option are enumerated below in Sec. 6.1.14.F.3.a.
- 3) **Geographic Restrictions on Location of Mitigation. Mitigation shall be performed in the same river basin where the impact is located with the following additional specifications:**
 - a) **In the Jordan Lake Watershed, mitigation shall be within the Lower New Hope sub-watershed of the Jordan Lake Watershed.**
 - b) **Buffer mitigation for impacts within watersheds with riparian buffer rules that also have federally listed threatened or endangered aquatic species may be done within other watersheds with the same federally listed threatened or endangered aquatic species as long as the impacts are in the same river basin as the mitigation site.**

F) *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:

- 1) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to either: the State Riparian Buffer Restoration Fund for impacts to a State Buffer **in accordance with 15A NCAC 02R .0403,** or to a Town Riparian Buffer Restoration Fund, if

established and available at the time, for impacts to a Town Buffer in accordance with this Sec. 6.1.1415.F. The value of the property interest shall be determined by an appraisal performed in accordance with Sec. 6.1.1415.F.4.d. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required mitigation fee calculated pursuant to 15A NCAC ~~2B-026902R~~ **.0601**. If the appraised value of the donated property interest is less than the required fee, the applicant shall pay the remaining balance due.

...

3) 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 for mitigation of buffer impacts for State Buffers and Town Buffers, as applicable in Sec. 6.1.1415.E, 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 Basin developed by the NC DEQ pursuant to NCGS 143-214.10 for the basin in which the property is located;

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 Sec. 6.1.1415.G.4;

...

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 Sec. 6.1.1415.D;

...

4) At the expense of the applicant or donor, the following information shall be submitted to the Town with any proposal for donations or dedications of interest in real property:

a) Documentation that the property meets the requirements laid out in Sec. 6.1.1415.F.3;

...

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, www.ncbels.org 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 <http://www.appraisalfoundation.org>; and

- e) A title certificate; and
- f) A Phase 1 Environmental Site Assessment documenting that the property does not contain structures that present health or safety problems to the general public. If wells, septic systems, water treatment systems, or water or sewer connections exist, they shall be filled, remediated, or closed at owner's expense and in accordance with State and local health and safety regulations.

5) In addition to the factors outlined in Sec. 6.1.15.F.2 through 4, the Town shall consider the following factors when determining whether to accept a donation of interest in real property to satisfy compensatory mitigation requirements:

- a) whether restoration of the property will offset the adverse impacts of the permitted project; and
- b) whether the adverse impacts of the permitted project are within the same 8-digit HUC as the property proposed for donation.

G) *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:~~ The area of riparian buffer restoration or enhancement shall be equal to the required area of mitigation determined pursuant to Sec. 6.1.15.D;
 - a) ~~The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Sec. 6.1.14.D; or~~
 - b) ~~The area of riparian buffer enhancement is three (3) times larger than the required area of mitigation determined pursuant to Sec. 6.1.14.D;~~
- 2) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Sec. 6.1.1415.E;
- 3) The riparian buffer restoration or enhancement site may be proposed in accordance with Table 6.1.15.G.1 below shall have a minimum width of 50 feet or equal to the width of the impacted buffer, whichever is greater, as measured on a line perpendicular to the surface water;

Table 6.1.15.G.1

Buffer Width (ft)	Proposed Percentage of Full Credit
<u>Less than 20</u>	<u>0%</u>
<u>20-29</u>	<u>75%</u>
<u>30-100</u>	<u>100%</u>
<u>101-200</u>	<u>33%</u>

4) Enhancement and restoration shall both have the objective of establishing a forested riparian buffer according to the requirements this Section. Enhancement shall be distinguished from restoration based on existing buffer conditions **which shall be determined by the Town. The applicant must submit a written request for the Town to perform this on-site buffer mitigation determination.** ~~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;~~ **In accordance with 15A NCAC 02B .0295:**

a) **Enhancement site means a riparian zone site characterized by conditions between that of a restoration site and a preservation site such that the establishment of woody stems (i.e., tree or shrub species) will maximize nutrient removal and other buffer functions;**

b) **Restoration site means riparian zone sites that are characterized by an absence of trees and by a lack of dense growth of smaller woody stems (i.e., shrubs or saplings) or sites that are characterized by scattered individual trees such that the tree canopy is less than 25 percent of the cover and by a lack of dense growth of smaller woody stems (i.e., shrubs or saplings); and**

c) **Preservation site is defined in Sec. 6.1.15.H.1.**

5) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of Sec. 6.1.11.G.5, or a variance pursuant to Sec. 6.1.13. After receiving this Certificate or variance, the applicant shall submit a restoration or enhancement plan for approval by the Town. The restoration or enhancement plan shall **demonstrate compliance with the requirements in Sec. 6.1.15.B, D, and E; and shall also** contain the following:

...

b) A vegetation plan **that shall detail the activities proposed to ensure a final performance standard of 260 stems per acre at the completion of monitoring. The final performance standard shall include a minimum of four native hardwood tree species or four native hardwood tree and native shrub species, where no one species is greater than 50% of stems. Native hardwood and native shrub volunteer species may be included to meet the final performance standard of 260 stems per acre. The Town may approve alternative vegetation plans upon consideration of factors, including site wetness and plant availability, to meet the requirements of this Section.** ~~The vegetation plan shall include a minimum of at least two (2) native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity;~~

c) A grading plan, **if applicable.** The site shall be graded in a manner to ensure diffuse flow through the **entire** riparian buffer;

d) A **schedule for implementation, including fertilization and herbicide plan if applicable;** and

e) A schedule for implementation **monitoring plan to document whether the site is expected to meet the final performance standards as defined in Sec. 6.1.15.G.5.b and other anticipated benefits to the adjacent water. The plan shall include a proposed schedule and method for monitoring the vegetative status of the restoration or enhancement site for five (5) years, including the health and average stem densities of native hardwood tree or tree and shrub species that are to be counted toward the final performance standard.**

6) Within one (1) year after the Town has approved the restoration or enhancement plan, the applicant shall present ~~proof~~documentation to the Town that the riparian buffer has been restored or enhanced; **unless the applicant requests, and the Town agrees in writing prior to that date, to a longer time period.** If ~~proof~~documentation is not presented within this timeframe, then the person shall be in violation of both the State's, where applicable, and the Town's riparian buffer protection program and shall be subject to civil penalties pursuant to Sec. 6.1516;

~~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)7) The applicant shall submit written annual reports, **unless an alternative schedule has been approved by the Town during the mitigation plan approval,** for a period of five (5) years after **completion of** the restoration or enhancement **site**, showing that **compliance with** the trees planted have survived approved monitoring plan and that diffuse flow through the riparian buffer has been maintained.; **and** The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five (5) year period.~~

~~8) If the Town determines that the native hardwood tree or tree and shrub species at the site are not expected to meet the final performance standards listed in Sec. 6.1.15.G.5.b , then the Town may require that the applicant replace trees or trees and shrubs as needed during that five-(5) year period. If the Town determines that diffuse flow through the buffer is not being maintained, then the Town may require that the applicant restore diffuse flow. If the Town determines that the final performance standards listed in Sec. 6.1.15.G.5.b have not been achieved at the end of the five-(5) year monitoring period, the Town may require additional years of monitoring. The Town shall make determinations referenced in this Section on a site specific basis based on the annual reports, any supplemental information submitted by the applicant, or a site evaluation by the Town.~~

H) Alternative Buffer Mitigation.

Any proposal for alternative buffer mitigation for impacts to State Buffers shall be submitted by the applicant in writing to the NC DEQ in accordance with 15A NCAC 02B .0295, and shall meet the content and procedural requirements for approval by the NC DEQ. Any proposal for alternative buffer mitigation for impacts to Town Buffers shall be provided in writing to the Town, shall meet the content and procedural requirements for approval by the Town, shall meet the requirements set out in Sec. 6.1.15.B and D, and the requirements set out as follows:

- 1) Preservation site means riparian zone sites that, as determined by a site visit conducted by the Town, are characterized by a forest consisting of the forest strata and diversity of species appropriate for the location.

- 2) *Retroactive Credit.* Alternative buffer mitigation sites constructed and within the required monitoring period on the effective date of this Rule shall be eligible for use as alternative buffer mitigation sites. Alternative buffer mitigation sites that have completed monitoring and were released by the Town on or within the past 10 years of the effective date of 15A NCAC 02B .0295, November 1, 2015, shall be eligible for use as alternative buffer mitigation sites. These alternative buffer mitigation sites shall receive credit in accordance with the criteria set forth in Sec. 6.1.15.D and E. All alternative buffer mitigation site proposals submitted for retroactive credit shall include the following:
 - a) A map or maps of the proposed alternative buffer mitigation site;
 - b) Documentation of pre-existing conditions showing that the proposed alternative buffer mitigation site met the criteria to qualify for the applicable alternative buffer mitigation type identified in the applicable item in this Sec. 6.1.15.H;
 - c) Documentation of the activities that were conducted at the proposed alternative buffer mitigation site to meet success criteria identified in the applicable item in this Sec. 6.1.15.H; and
 - d) Documentation that the proposed alternative buffer mitigation site met the success criteria identified in the applicable item in this Sec. 6.1.15.H.

- 3) *Buffer Restoration and Enhancement on Non-Subject Streams.* Restoration or enhancement of buffers may be conducted on intermittent or perennial streams that are not buffered pursuant to Sec. 6.1.11.C and D. These streams shall be confirmed as intermittent or perennial streams by Town staff in accordance with Sec. 6.1.11.D.4. The proposal shall meet all applicable requirements of Sec. 6.1.11.G.

- 4) *Preservation of Buffer on Non-Subject Streams.* Preservation of buffers on intermittent or perennial streams that are not buffered pursuant to Sec. 6.1.11.C and D may be proposed in order to permanently protect the buffer from cutting, clearing, filling, grading, and similar activities that would affect the functioning of the buffer. These streams shall be confirmed as intermittent or perennial streams by Town staff in accordance with Sec. 6.1.11.D.4. The preservation site shall meet the requirements of Table 6.1.15.G.1; and shall be absent of the following: structures, infrastructure, hazardous substances, solid waste, and encumbrances and conditions on the transfer of the property interests. The area of preservation credit within a buffer mitigation site shall comprise of no more than 25% of the total area of buffer mitigation.

- 5) *Preservation of Buffers on Subject Streams.* Buffer preservation may be proposed on streams that are buffered pursuant to Sec. 6.1.11.C and D in order to permanently protect the buffer from cutting, clearing, filling, grading,

and similar activities that would affect the functioning of the buffer beyond the protection afforded by the existing buffer rules on sites that meet the definition of a preservation site. The preservation site shall meet the requirements of Table 6.1.15.G.1; and shall be absent of the following: extensive structures, extensive infrastructure, hazardous substances, solid waste, and encumbrances and conditions on the transfer of the property interests. The area of preservation credit within a buffer mitigation site shall comprise of no more than 25% of the total area of buffer mitigation.

- 6) *Enhancement of grazing areas adjacent to streams.* Buffer credit at a 2:1 ratio shall be available for an applicant who proposes permanent exclusion of grazing livestock that otherwise degrade the stream and riparian zone through trampling, grazing, or waste deposition by fencing the livestock out of the stream and its adjacent buffer. The applicant shall provide an enhancement plan as set forth in Sec. 6.1.15.G. The applicant shall demonstrate that grazing was the predominant land use since August, 2000, the effective date of the UDO Town riparian buffer regulations.
- 7) *Mitigation on ephemeral channels.* For purposes of riparian buffer mitigation as described in this Sec. 6.1.15.H, an ephemeral channel is defined as a natural channel exhibiting discernible banks within a topographic crenulation (V-shaped contour lines) indicative of natural drainage on the 1:24,000 scale (7.5 minute) quadrangle topographic map prepared by the U.S. Geologic Survey, or as seen on digital elevation models with contours developed from the most recent available LiDAR data, available at no cost at <http://www.ncfloodmaps.com/lidar.com>. Ephemeral channels only flow for a short period of time after precipitation in the drainage area and do not have periods of base flow sustained by groundwater discharge. The applicant shall provide a delineation of the watershed draining to the ephemeral channel. The entire area proposed for mitigation shall be within the contributing drainage area to the ephemeral channel. The ephemeral channel shall be directly connected to an intermittent or perennial stream and contiguous with the rest of the mitigation site protected under a perpetual conservation easement. The area of the mitigation site on ephemeral channels shall comprise no more than 25% of the total area of buffer mitigation. The proposal shall meet all applicable requirements of Sec. 6.1.15.G for restoration or enhancement. The proposal shall meet all applicable requirements of 6.1.15.H.4 and 5 for preservation.
- 8) *Restoration and Enhancement on Ditches.* For purposes of riparian buffer mitigation as described in this Sec. 6.1.15.H, a ditch is defined as a man-made channel other than a modified natural stream that was constructed for drainage purposes. The width of the restored or enhanced area shall not be less than 30 feet and shall not exceed 50 feet for crediting purposes. The applicant or mitigation provider shall provide a delineation of the watershed draining to the ditch. The watershed draining to the ditch shall be at least four times larger than the restored or enhanced area along the ditch. The perpetual conservation easement shall include the ditch and the confluence of the ditch with the intermittent or perennial stream, and provide language that prohibits future maintenance of the ditch. The proposal shall meet all applicable requirements of Sec. 6.1.15.G for restoration or enhancement. To be used for mitigation, a ditch shall meet all of the following criteria:

- a) be directly connected with and draining towards an intermittent or perennial stream;
- b) be contiguous with the rest of the mitigation site protected under a perpetual conservation easement;
- c) stormwater runoff from overland flow shall drain towards the ditch;
- d) be between one (1) and three (3) feet in depth; and
- e) the entire length of the ditch shall have been in place prior to the effective date of the UDO Town buffer regulations, August, 2000.

9) *Stormwater Treatment Options.* All stormwater treatment options shall meet the following requirements:

- a) Structural options already required by other local, state, or federal rule or permit cannot be used as alternative buffer mitigation credit, except to the extent such measure(s) exceed the requirements of such rule or permit. Stormwater Control Measures (SCMs), including bioretention facilities, constructed wetlands, infiltration devices and sand filters are all potentially approvable SCMs by the Town for alternative buffer mitigation credit. Other SCMs may be approved only if they meet the nutrient removal levels outlined in Sec. 6.1.15.H.9.b. Existing or planned SCMs for a local, state, or federal rule or permit may be retrofitted or expanded to improve their nutrient removal if this level of treatment is not required by other local, state, or federal rules. In this case, the predicted increase in nutrient removal may be counted toward alternative buffer mitigation credit;
- b) *Minimum treatment levels:* Any structural SCM shall provide at least 30% total nitrogen and 35% total phosphorus removal as demonstrated by a scientific and engineering literature review as approved by the Town. The mitigation proposal shall demonstrate that the proposed alternative removes an equal or greater annual mass load of nutrients to surface waters as the buffer impact authorized in the authorization certificate or variance, following the calculation of impact and mitigation areas pursuant to Sec. 6.1.15.D and E. To estimate the rate of nutrient removal of the impacted buffer, the applicant may use the "NC Division of Water Quality–Methodology and Calculation for determining nutrient reductions associated with Riparian Buffer Establishment" available at no cost at <https://files.nc.gov/ncdeq/Water%20Quality/Planning/NPU/Nutrient%20Offset%20Rule/Ag-Buffer-Credit.pdf>. The applicant may propose an alternative method of estimating the rate of nutrient removal for consideration and review by the Town;
- c) All proposed structural SCMs shall follow the NC DEQ Stormwater Design Manual and the *Town of Apex Standard Specifications and Standard Details*. If a specific proposed structural SCM is not

addressed in this Manual, the applicant shall follow Part F in this Manual for approval.

- d) All structural options are required to have Town approved operation and maintenance agreements in accordance with 6.1.12.D;
 - e) All structural options are required to have continuous and perpetual maintenance and inspection in accordance with 6.1.12.H and I;
 - f) Upon completion of construction, the designer for the type of SCM installed shall provide a signed and sealed certification statement that the system was inspected during construction and that the SCM was constructed in conformity with plans and specifications approved by the Town and in accordance with 6.1.12.F and the *Town of Apex Standard Specifications and Standard Details*;
 - g) *Removal and replacement of structural options:* If a structural option is proposed to be removed and cannot be replaced on-site, then a structural or non-structural measure of equal or better nutrient removal capacity, as determined by calculations submitted to and approved by the Town, in a location as specified by Sec. 6.1.15.G shall be constructed as a replacement;
 - h) *Renovation or repair of structural options:* If the applicant or the Town determines that a structural option must be renovated or repaired, it shall be renovated to provide equal or better nutrient removal capacity than as originally designed; and
 - i) Structural options, as well as their operation and maintenance, are the responsibility of the landowner or easement holder unless the Town gives written approval for another responsible party to operate and maintain them. Structural options shall be located in recorded easements for the purposes of operation and maintenance and shall have recorded access easements providing access to the nearest public right-of-way. These easements shall be granted in favor of the party responsible for operating and maintaining the structure and provide that operation and maintenance is the responsibility of the landowner, easement holder, or other responsible party.
- 10) *Approval for other alternative buffer mitigation options.* Other alternative riparian buffer mitigation options not specified within this Sec. 6.1.15.H may be submitted to the Town for review and recommendation to the Water Resources Director on a case-by-case basis. Any proposal submitted under Sec. 6.1.15.H.10 shall provide documentation or calculations to demonstrate that the proposed alternative mitigation option removes an equal or greater annual mass load of nutrients to surface waters as a riparian buffer. Upon completion of the Town's review, and prior to recommendation to the Water Resources Director, the Town shall advertise a 30-calendar day public comment period through the Town's website with instructions on how to provide comments. Town staff shall present their recommendations, including comments received during the public comment notice period, to the Water Resources Director for a final decision. If approved by the Water Resources

Director, the alternative buffer mitigation option may be proposed by other applicants.

I) **Purchase of Buffer Mitigation Credits from a Private or Public Compensatory Buffer Mitigation Bank.** Applicants who choose to satisfy some or all of their mitigation by purchasing mitigation credits from a private or public compensatory buffer mitigation bank shall meet the following requirements:

1) The compensatory buffer mitigation bank from which credits are purchased shall have available riparian buffer credits approved by the NCDEQ;

2) The compensatory buffer mitigation bank from which credits are purchased shall be located pursuant to 6.1.15.D and 6.1.15.E; and

3) After receiving a mitigation acceptance letter from the compensatory buffer mitigation bank, proof of payment for the credits shall be provided to the Town prior to any activity that results in the removal or degradation of the protected riparian buffer, and prior to Construction Drawing approval.

J) **Payment to the Riparian Buffer Restoration Fund.** Applicants who choose to satisfy some or all of their mitigation requirement by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund shall meet the requirements of 15A NCAC 02R .0601. Applicants may also choose to make a payment to a Town Riparian Buffer Restoration Fund, if established and available at the time, for impacts to a Town Buffer. Payments made to the NC Division of Mitigation Services (DMS), or the Town as applicable, shall be contingent upon acceptance of the payment by the DMS, or the Town. The DMS, or the Town, shall consider their financial, temporal, and technical ability to satisfy the mitigation request to determine whether they shall accept or deny the request.

~~6.1.15~~6.1.16 Civil Penalties

...

~~6.1.16~~6.1.17 Criminal Penalties

...

~~6.1.17~~6.1.18 Remedies

...

8.2.7 Fences, Walls, and Berms

Fences, walls, and berms are permitted as elements of site design and in some locations, may be used to conceal storage or other unsightly or conflicting land uses. Fences are not allowed around detention and retention basins per Sec. 6.1.123.B.10. All fences, walls, and berms shall meet the following requirements:

...

11.4.4 Civil Penalties

Except as provided in Sec. 6.1.156, the following civil penalties may be imposed on a person who violates this Ordinance:

...

12.2 TERMS DEFINED

...

Built-Upon Area

For the purposes of complying with the standards and requirements of the Watershed Protection Overlay Districts, calculation of the built-upon area within the proposed development shall include, but not be limited to, all existing public and private streets, proposed public streets, sidewalks, driveways, rooftops, parking lots, patios, and all other impervious and partially impervious surfaces, including CABC and gravel within the development. **In accordance with NCGS 143-214.7, built upon area does not include ~~The~~the water area of swimming pools; and ~~wooden-slatted decks~~; and a surface of number 57 stone, as designated by the American Society for Testing and Materials, laid at least four inches thick over a geotextile fabric; a trail as defined in G.S. 113A-85 that is either unpaved or paved as long as the pavement is porous with a hydraulic conductivity greater than 0.001 centimeters per second (1.41 inches per hour); or landscaping material, including, but not limited to, gravel, mulch, sand, and vegetation, placed on areas that receive pedestrian or bicycle traffic or on portions of driveways and parking areas that will not be compacted by the weight of a vehicle, such as the area between sections of pavement that support the weight of a vehicle.** ~~shall not be included in the calculation of the built-upon area.~~ **The owner or developer of a property may opt out of any of the exemptions from built-upon area set out in this section.**

...

WATER RESOURCES AND PLANNING STAFF RECOMMENDATION:

Water Resources and Planning staff recommend approval of the proposed amendments.

PLANNING BOARD RECOMMENDATION:

The Planning Board heard these amendments at their April 8, 2024 meeting and unanimously recommended approval.



TOWN OF APEX

POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARING AMENDMENTS TO THE UNIFIED DEVELOPMENT ORDINANCE (UDO)

Pursuant to the provisions of North Carolina General Statutes §160D-601 and to the Town of Apex Unified Development Ordinance (UDO) Sec. 2.2.11, notice is hereby given of a public hearing before the Town Council of the Town of Apex for the purpose of soliciting comments relative to the following amendment(s) to the Unified Development Ordinance that are applicable Town-wide:

Requested by Water Resources Staff:

1. Amendments to Sec. 6.1 *Watershed Protection Overlay Districts* in order to incorporate the Neuse River Basin stormwater regulations as required by 15A NCAC 02B .0711 *Neuse Nutrient Strategy - Stormwater* and update the riparian buffer mitigation requirements to be consistent with that in 15A NCAC 02B .0295 *Mitigation Program Requirements for Protection and Maintenance of Riparian Buffers*. Amendments to Sec. 8.2.7 *Fences, Walls, and Berms* and Sec. 11.4.4 *Civil Penalties* are proposed to update Section references related to the proposed changes in Sec. 6.1. Also included are amendments to Sec. 12.2 *Terms Defined* in order to update the definition of "Built-Up Area" to be consistent with that required by NC General Statute 143-214.7 and have Sec. 6.1 refer to Sec. 12.2 to avoid a duplication of the definition.

Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Town Council Public Hearing Date and Time: April 23, 2024 6:00 PM

You may attend the meeting in person or view the meeting through the Town's YouTube livestream at: <https://www.youtube.com/c/townofapexgov>.

If you are unable to attend, you may provide a written statement by email to public.hearing@apexnc.org, or submit it to the Office of the Town Clerk (73 Hunter Street or USPS mail - P.O. Box 250, Apex, NC 27502), at least two business days prior to the Town Council vote. You must provide your name and address for the record. The written statements will be delivered to the Town Council members prior to their vote. Please include the Public Hearing name in the subject line.

The UDO can be accessed online at: <http://www.apexnc.org/233>.

Dianne F. Khin, AICP
Planning Director

Published Dates: April 1-23, 2024



TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
TEL. 919-249-3426

NOTIFICACIÓN PÚBLICA DE AUDIENCIAS PÚBLICAS

Modificación de la Ordenanza de Desarrollo Unificado (UDO)

De conformidad con las disposiciones de los Estatutos Generales de Carolina del Norte §160D-601 y con la sección 2.2.11 de la Ordenanza de Desarrollo Unificado (UDO) del pueblo de Apex, por la presente se notifican las audiencias públicas ante el Consejo Municipal del pueblo de Apex a fin de solicitar comentarios relativos a la siguiente modificación de la Ordenanza de Desarrollo Unificado que se aplican a toda la ciudad:

Solicitado por el personal de Recursos Hídricos:

1. Enmiendas a la Sección 6.1 *Distritos de Superposición de Protección de Cuencas Hidrográficas* para incorporar las regulaciones de aguas pluviales de la cuenca del río Neuse según lo exige la regla 15A NCAC 02B .0711 *Estrategia de nutrientes de Neuse - Aguas pluviales* y actualizar los requisitos de mitigación de áreas de protección ribereña para que sean consistentes con los de la regla 15A NCAC 02B .0295 *Requisitos del programa de Mitigación para Protección y Mantenimiento de Áreas de protección ribereña*. Enmiendas a la Sección 8.2.7 *Cercas, muros y bermas* y la Sección 11.4.4 Se proponen *Sanciones Civiles* para actualizar las referencias a las secciones relacionadas con los cambios propuestos en la Sección 6.1. También se incluyen enmiendas a la Sección 12.2 *Términos definidos* para actualizar la definición de "Área construida" para que sea consistente con lo requerido por el Estatuto General de Carolina del Norte 143-214.7 y tener la Sección 6.1 como referencia de la Sección 12.2 para evitar una duplicación de la definición.

Lugar de la audiencia pública: Ayuntamiento de Apex
Cámara del Consejo, 2º piso
73 Hunter Street, Apex, Carolina del Norte

Fecha y hora de la audiencia pública del Consejo Municipal: 23 de abril de 2024 6:00 PM

Puede asistir a la reunión de manera presencial o seguir la transmisión en directo por YouTube a través del siguiente enlace: <https://www.youtube.com/c/townofapexgov>.

Si no puede asistir, puede enviar una declaración escrita por correo electrónico a public.hearing@apexnc.org, o presentarla a la Oficina del Secretario Municipal (73 Hunter Street o por correo USPS a P.O. Box 250, Apex, NC 27502), al menos dos días hábiles antes de la votación del Consejo Municipal. Debe proporcionar su nombre y dirección para que conste en el registro. Las declaraciones escritas se entregarán al Consejo Municipal antes de la votación. No olvide incluir el nombre de la audiencia pública en el asunto.

Se puede acceder a la UDO en línea en: <http://www.apexnc.org/233>.

Dianne F. Khin, AICP
Directora de Planificación

Fechas de publicación: 1-23 de abril de 2024



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POST OFFICE BOX 250
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PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARING AMENDMENTS TO THE UNIFIED DEVELOPMENT ORDINANCE (UDO)

Pursuant to the provisions of North Carolina General Statutes §160D-601 and to the Town of Apex Unified Development Ordinance (UDO) Sec. 2.2.11, notice is hereby given of a public hearing before the Town Council of the Town of Apex for the purpose of soliciting comments relative to the following amendment(s) to the Unified Development Ordinance that are applicable Town-wide:

Requested by Water Resources Staff:

1. Amendments to Sec. 6.1 *Watershed Protection Overlay Districts* in order to incorporate the Neuse River Basin stormwater regulations as required by 15A NCAC 02B .0711 *Neuse Nutrient Strategy - Stormwater* and update the riparian buffer mitigation requirements to be consistent with that in 15A NCAC 02B .0295 *Mitigation Program Requirements for Protection and Maintenance of Riparian Buffers*. Amendments to Sec. 8.2.7 *Fences, Walls, and Berms* and Sec. 11.4.4 *Civil Penalties* are proposed to update Section references related to the proposed changes in Sec. 6.1. Also included are amendments to Sec. 12.2 *Terms Defined* in order to update the definition of "Built-Upon Area" to be consistent with that required by NC General Statute 143-214.7 and have Sec. 6.1 refer to Sec. 12.2 to avoid a duplication of the definition.

Public Hearing Location: Apex Town Hall
Council Chamber, 2nd Floor
73 Hunter Street, Apex, North Carolina

Town Council Public Hearing Date and Time: April 23, 2024 6:00 PM

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Dianne F. Khin, AICP
Planning Director

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1. Enmiendas a la Sección 6.1 *Distritos de Superposición de Protección de Cuencas Hidrográficas* para incorporar las regulaciones de aguas pluviales de la cuenca del río Neuse según lo exige la regla 15A NCAC 02B .0711 *Estrategia de nutrientes de Neuse - Aguas pluviales* y actualizar los requisitos de mitigación de áreas de protección ribereña para que sean consistentes con los de la regla 15A NCAC 02B .0295 *Requisitos del programa de Mitigación para Protección y Mantenimiento de Áreas de protección ribereña*. Enmiendas a la Sección 8.2.7 *Cercas, muros y bermas* y la Sección 11.4.4 Se proponen *Sanciones Civiles* para actualizar las referencias a las secciones relacionadas con los cambios propuestos en la Sección 6.1. También se incluyen enmiendas a la Sección 12.2 *Términos definidos* para actualizar la definición de "Área construida" para que sea consistente con lo requerido por el Estatuto General de Carolina del Norte 143-214.7 y tener la Sección 6.1 como referencia de la Sección 12.2 para evitar una duplicación de la definición.

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Cámara del Consejo, 2º piso
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Fechas de publicación: 1-23 de abril de 2024