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**ARTICLE XI**

**11-1. STORMWATER MANAGEMENT/WATERSHED PROTECTION DISTRICTS**

**11-1.1. District Descriptions.**

Three overlay districts cover the incorporated areas of Whitsett. They are the National Pollutant Discharge Elimination System (NPDES), Jordan Lake Watershed and the Water Supply Watershed overlays. The Water Supply Watershed area is further divided into the Watershed Critical Area (WCA) and the General Watershed Area (GWA). The WCA covers the portion of the watershed adjacent to a water supply intake or reservoir. The GWA covers the rest of the watershed draining to the reservoir or intake.

**11-1.2. Incorporation of Designated Water Supply Watershed/NPDES Phase II Stormwater Map of Guilford County, North Carolina.**

The provisions of this Ordinance shall apply to all incorporated areas of Whitsett, as shown on the map titled "Designated Water Supply Watershed/NPDES Phase II Stormwater Map of Guilford County, North Carolina" ("the Stormwater Map") and Jordan Watershed Stormwater Map, Town of Whitsett, which is adopted simultaneously herewith. 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 Enforcement Officer and shall be updated to take into account changes in the land area covered by this Ordinance and the geographic location of all structural BMPs 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 maps and the Whitsett Development Ordinance.

**11-1.3. Applicability.**

*(A) Coverage:*

- 1) Sections 11-1 and 11-2 apply to all sites in Whitsett's planning jurisdiction unless specifically exempted pursuant to item (B) of this section.
- 2) The construction of new streets by local government shall comply with best management practices developed in response to the NCDOT's EPA-NPDES Stormwater Management Program which is incorporated herein by reference.
- 3) Widening of existing streets and the installation of sidewalks shall comply with the provisions of this Ordinance to the extent practicable. When determined by the Enforcement Officer, or designee that the provisions of these sections cannot be met, the widening of existing streets and the installation of sidewalks shall comply with best management practices developed in response to the NCDOT's EPA-NPDES Stormwater Management Program which is incorporated herein by reference.

*(B) Exempt Activities:* The following activities are exempt from the Stormwater Management/Watershed Development requirements of this Section. However, any restrictions upon building location, drainageways, pavement or other built-upon area, or any other matter appearing on any previously approved Stormwater Management/Watershed Development plan covering the subject property shall be complied with unless and until replaced by an approved revised plan.

- 1) Construction of a single family dwelling and its accessory structures on a legal lot of record established prior to the regulations for the watershed protection district. This exemption does not apply to riparian buffer protection for lands within the Jordan Lake Watershed.

- 2) Replacement of existing built-upon area with a like or lesser amount of new built-upon area at the same location, or at a different location on the same zoned lot if the Enforcement Officer, or designee has determined that equal or improved water quality will result, and that within the Lake Jordan Watershed District the postdevelopment nutrient loading for built-upon area legally existing after December 1, 2001 relating to nitrogen and phosphorus does not increase. Requires submittal of site plan documenting removal/relocation of built-upon area.
- 3) Placement of small accessory buildings or structures or small amounts of other built-upon area provided that the total additional built-upon area is no greater than four hundred (400) square feet. This exemption shall apply to an individual property for one time only after January 1, 1994. Requires submittal of site plan documenting location of 400 sf built-upon area. This provision shall not allow any development to circumvent the riparian buffer protection for lands within the Jordan Lake Watershed.
- 4) Existing development in non-water supply districts that was in place prior to July 1, 2007. Any water quality device required by new development or redevelopment shall be sized to treat runoff from all impervious surfaces (existing and proposed) that naturally flow to that device. Required water quality control for an area of new development can be substituted for an equal area of existing development, if the Enforcement Officer, or designee has determined that equal or improved water quality will result.
- 5) Existing development in watershed districts until such time that additional new development is initiated on the site.

**11-1.4. Participation in a Public Regional Water Quality Lake Program.**

(A) *Where Permitted:* Where a regional water quality lake program has been established by one or more local governments, or by an authority operating on behalf of one or more local governments, and approved by the N.C. Environmental Management Commission, a development may participate in said program in lieu of any certification of runoff control required by this Article, provided that:

- 1) The development is within an area covered by a public regional water quality lake program;
- 2) Runoff from the development drains to an existing or funded public regional water quality lake which is part of said program;
- 3) Participation is in the form of contribution of funds, contribution of land, contribution of lake construction work, or a combination of these, the total value of which shall be in accordance with a fee schedule adopted by the Governing Body; and
- 4) The Enforcement Officer, or designee finds that the watershed development plan is in compliance with all other applicable requirements of this Article.

(B) *Use of Contributions:* Each contribution from a development participating in a public regional water quality lake program shall be used for acquisition, design, or construction of one or more such lakes in the same water supply watershed that the development lies in.

**11-1.5. Stormwater Management/Watershed Development Plan.**

(A) *Plan Required:* A Stormwater Management/Watershed Development plan in accordance with the performance standards specified in Table 11-2-1 or the requirements of Sections 11-2.2 and 11-2.3 and with other requirements of this Article shall be submitted to the Enforcement Officer and shall include all applicable information listed in Appendix 2 (Map Standards) of this Ordinance.

(B) *Plan Approval:* The Enforcement Officer is authorized to approve any Stormwater Management/Watershed Development plan which is in conformance with the performance standards specified in Table 11-2-1 or the requirements of Section 11-2.2 and 11-2.3, whichever is applicable, and with other requirements of this Article.

(C) *Approved Plan a Prerequisite:* The Enforcement Officer is not authorized to issue any permits for development on any land unless and until a Stormwater Management/Watershed Development plan in compliance with the requirements of this Section has been approved.

(D) *Deed Restriction-Restrictive Covenant:* In accordance with applicable National Pollutant Discharge Elimination System (NPDES) Phase II regulations recorded deed restrictions and protective covenants shall be required to ensure that development activities maintain the development consistent with the approved project plans. Effective July 1, 2007, the following restriction shall be required for all developments in incorporated Whitsett.

The Enforcement Officer, or designee shall review and approve plats and deeds prior to recording or prior to issuing a building permit. A copy of the recorded document shall be forwarded to the Enforcement Officer, or designee prior to issuing a certificate of occupancy.

The deed restriction and protective covenants note shall take the following form for plats and deeds:

DEED RESTRICTION-RESTRICTIVE COVENANT:
"Development of subject property is required to be in accordance with applicable state and federal regulations for the National Pollutant Discharge Elimination System (NPDES) Phase II stormwater management program. The recording of this document establishes an enforceable restriction on property usage that runs with the land to ensure that future development and/or redevelopment shall maintain the site in a manner consistent with applicable law and the approved project plans. Any alterations to the site shall not be permitted without review and approval by the local governmental office having jurisdiction for watershed/stormwater management protection."

(E) *Permanent Runoff Control Structures:* When a permanent runoff control structure is required for a development/redevelopment to meet the requirements of this Article, a North Carolina registered professional engineer shall prepare the plan with the Engineer's Statement of Runoff Control from Article 11-1.6(B) affixed, signed, sealed, and dated.

(F) *Stormwater Permit:* A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including engineered stormwater controls and elements of site design for stormwater management other than engineered stormwater controls.

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

(G) *Appeals:* Appeals of the Enforcement Officer's, or designee's decision on a Stormwater Management/Watershed Development plan shall be made in writing to the Town Council. The Town Council shall review the appeal at its first regularly scheduled meeting after receipt of the written appeal and make the determination based on evidence presented.

(H) *Event of Conflict:* In the event of a conflict or inconsistency between the text of this ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

(I) *Enforcement Officer:* An Enforcement Officer shall be designated by the Town of Whitsett to administer and enforce this ordinance.

1) *Powers and Duties:* In addition to the powers and duties that may be conferred by other provisions of the Article XI Environmental Regulations of the Town of Whitsett ordinances and other laws, the Enforcement Officer shall have the following powers and duties under this ordinance:

- a. To review and approve, approve with conditions, or disapprove applications for approval of plans pursuant to this ordinance.
- b. To make determinations and render interpretations of this ordinance.
- c. To establish application requirements and schedules for submittal and review of applications and appeals, to review and make recommendations to the Town Council on applications for development or redevelopment approvals.
- d. To enforce the provisions of this ordinance 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 ordinance.
- f. To provide expertise and technical assistance to the Town Council, upon request.

- g. To designate appropriate other person(s) who shall carry out the powers and duties of the Enforcement Officer.
- h. To take any other action necessary to administer the provisions of this ordinance.
- 2) Authority for Interpretation: The Enforcement Officer has authority to determine the interpretation of this ordinance. Any person may request an interpretation by submitting a written request to Enforcement Officer who shall respond in writing within 30 days. The Enforcement Officer shall keep on file a record of all written interpretations of this ordinance.

**11-1.6. Improvements.**

(A) *Design of Improvements:*

- 1) Design of improvements shall:
  - a) Be performed by a North Carolina registered professional engineer;
  - b) Be subject to approval of the Enforcement Officer, or designee; and
  - c) Meet or exceed the guidelines in the latest edition of the Guilford County Water Quality Protection Manual, issued by Guilford County.
- 2) The Enforcement Officer, or designee may recommend, and the Technical Review Committee may require, that a given runoff control structure(s) be positioned on a site such that water quality protection is improved.
- 3) The construction plans for required runoff control structures shall be approved prior to issuance of any building permit on a site. For subdivisions, construction plans shall be submitted in accordance with Section 5-7.1 (Plans).

(B) *Engineer's Statement of Runoff Control.* The engineering certification required on Stormwater Management/Watershed Development Plans and construction plan drawings shall be of the following form:

**ENGINEER'S STATEMENT OF RUNOFF CONTROL**

I state that, to the best of my knowledge and belief, the runoff control measure(s) shown on this plan have been designed to ~~will~~ control and treat runoff from the first one inch of rain from all built-upon areas over the total drainage area and the discharge of the storage volume is at a rate equal to or less than the predevelopment discharge rate for the one-year, 24-hour storm and that the runoff control measures shown on this plan meet or exceed the guidelines in the latest edition of the Guilford County Water Quality Protection Manual issued by Guilford County.

SIGNATURE                      \_\_\_\_\_                      P.E. SEAL                      \_\_\_\_\_  
DATE    \_\_\_\_\_

(C) *Construction of Improvements:*

- 1) The construction of all improvements designed for post construction runoff control and shown on an approved Stormwater Management/Watershed Development plan shall be substantially completed prior to any plat recordation or issuance of any building certificate of occupancy (compliance).
- 2) Final approval of installed post construction runoff control structures will be required at finalization of the grading permit or at issuance of the final building certificate of occupancy (compliance), whichever comes later. If neither a building permit nor a grading permit is required for a site, then any required runoff control structure shall be substantially completed prior to installation of any built-upon area on the site. Engineering statement of completion and record of construction Article 11-1.6(E) shall be required prior to final approval by the Enforcement Officer.

(D) *Recordation of Permanent Improvements:* All permanent runoff control structures and associated access/maintenance easement(s) (specific or general, at the owner's option) shall be recorded on a final plat; and a Best Management Practice Operation and Maintenance Agreement, as outlined in the latest edition of the Guilford County Water Quality Protection Manual shall be submitted to the Enforcement Officer for review and approval, then subsequently recorded in the Office of the Guilford County Register of Deeds concurrent with or prior to plat recordation.

(E) *Engineer's Statement of Completion:* The Record of Construction (as shown in the Water Quality Protection Manual) and the Engineer's Statement required upon completion of permanent runoff control structures shall be of the following form:

ENGINEER'S STATEMENT OF COMPLETION

I state that, to the best of my knowledge and belief, the permanent runoff control structure for (name of plat) is duly recorded in the Office of the Guilford County Register of Deeds and has been completed in conformance with the approved plans and specifications dated (approval date).

SIGNATURE \_\_\_\_\_ P.E. SEAL \_\_\_\_\_  
DATE \_\_\_\_\_

(F) *Maintenance Responsibility:*

- 1) When runoff control structures serve more than one lot, an owner's association or binding contract for the purpose of maintenance shall be required.
- 2) Maintenance of runoff control structures shall be performed at such time as the designated sediment storage volume of the structure has been lost to sediment or a part of the system is not functioning as originally designed. The Enforcement Officer shall have the responsibility to inspect runoff control structures annually, to record the results on forms approved or supplied by the N. C. Division of Water Quality, and to notify the responsible property owner or owner's association when maintenance or repairs are required. All required repairs and maintenance shall be performed within ninety (90) days after such notice. In case of failure by the responsible party to perform the required maintenance or repairs within the stated period, in accordance with Article 9 of this Ordinance the jurisdiction may impose an assessment of a civil penalty up to two hundred dollars (\$200.00) per day for each violation.
- 3) Prior to issuance of any permit for development requiring a runoff control structures pursuant to this ordinance, 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 lot or parcels served by the runoff control structures. Until the transference of all property, sites, or lots served by the runoff control structures, the original owners or applicant shall have the primary responsibility for carrying out the provisions of the maintenance agreement.

**11-1.7. Clustering.**

This Section left intentionally blank since clustering is not a zoning option in the Town of Whitsett.

**11-1.8. Drainage.**

The design of storm drainage systems and plans, including calculations, shall clearly indicate the easements and dedicated areas required for the construction and maintenance of the drainage system.

(A) *General Drainage Requirement:*

- 1) All watercourses which carry drainage from a public road or have a two acre or larger drainage basin, shall be treated in one or more of the three ways listed in Section 11-1.8(B), (C), and (D) which follow. Except where Section 11-1.8(A)2) below leaves the determination to the developer, the Technical Review Committee shall determine the treatments to be used, based upon the drainage area and adopted open space plan. Open drainage channel requirements shall be based upon a minimum of one hundred-year storm, and enclosed systems shall be based upon a minimum of ten-year storm. If the channel is a perennial or intermittent stream, or is identified on the open space plan map or drains a one hundred twenty (120) acre or larger basin, the determination of drainage treatment shall be made by the Technical Review Committee. In making this determination, the Technical Review Committee shall consider the following factors:
  - a) The type of development;
  - b) The treatment employed by nearby developments;
  - c) The probability of creation of a lengthy greenway or drainageway and open space;
  - d) The probability of the creation of future maintenance problems;
  - e) The probability of erosion or flooding problems; and

- f) The adopted open space plan.
  - g) NPDES Phase II requirements, stream buffer requirements, and channelization limitations for the WCA and GWA, as described in Article VII (Environmental Standards).
- 2) If the channel is not a perennial or intermittent stream, or is not identified on the open space plan and drains less than a one hundred twenty (120) acre drainage basin, the determination of drainage treatment shall be made by the property owner in a manner consistent with this Section.
- (B) *Enclosed Subsurface Drains:*
- 1) This Section applies to enclosed subsurface drains. Profiles and enclosure standards shall be in accordance with the Guilford County Storm Sewer Design Manual.
  - 2) A drainage maintenance and utility easement (DMUE) or drainage easement designed to accommodate storm water shall be placed on a recorded plat when determined necessary by the Jurisdiction. The required easement shall be centered on the enclosure when practical, but in no case shall the outside wall of the enclosure be located less than five (5) feet from the edge of the easement. The easement shall be of a width determined necessary for maintenance purposes by the Jurisdiction based upon enclosure depth, topography and location of existing and proposed improvements, but no less than fifteen (15) feet.
  - 3) The DMUE or drainage easement shall be kept free and clear of any buildings or other improvements which would interfere with the proper maintenance of the underground enclosures. The Jurisdiction shall not be liable for damages to any improvement located within DMUE area caused by maintenance of utilities located therein. Furthermore, DMUE may be used for future installations of any underground utility, provided that:
    - a) Any underground utility to be installed by any utility provider other than the Jurisdiction shall be subject to approval.
    - b) Any government agency, public utility, or private company installing additional underground lines after development has been completed by the owner of the property shall be responsible for the replacement of all fencing, pavement and grassed area disturbed by such installation.
    - c) The Jurisdiction shall not be responsible for damages caused by installation of additional lines by any public or private utility company.
- (C) *Open Channel in Dedicated Drainageway and Open Space Area:*
- 1) This Section applies to an open channel in a dedicated drainageway and open space area. The drainageway and open space area shall be dedicated by a recorded plat and shall be labeled "Dedicated to Whitsett and the public for Drainageway and Open Space". If a portion of the drainageway and open space lies within a proposed thoroughfare shown on the thoroughfare plan, it shall be labeled "Dedicated to Whitsett and the public for Drainageway and Open Space or Thoroughfare." The ownership of the dedicated land remains with the deeded owner, but the use is restricted. Dedication does not transfer title. The dedicated area can also be deeded to any individual or group, such as a homeowners association or to Whitsett (with Town Council acceptance).
  - 2) The dedicated drainageway and open space area along any stream that drains a 120 acre or larger drainage basin shall include the land between the natural one hundred (100) year flood contour lines as determined by FEMA or by calculations approved by the US Army Corps of Engineers. (Caution: Other Environmental Regulations or federal wetland regulations will prohibit or restrict fill placement in certain locations.) An area within the floodway fringe can be developed as permitted in Section 11-5.3(D)1) with a floodplain development permit. The remainder shall be dedicated as indicated in subsection 1) above. A previously dedicated area may be considered for development through re-platting and approval from TRC.
  - 3) In case of severe topography, additional width may be required to assure reasonable ease of maintenance.
  - 4) The dedicated drainageway and open space area shall abut public street right-of-way on at least thirty (30) percent of its perimeter except when the Technical Review Committee determines that adequate access is otherwise provided. The minimum length of street frontage at each location where drainageway and open space abuts public street right-of-way shall be sixty (60) feet. The maximum distance, measured by straight lines on either side of the drainageway

and open space, between points at which the drainageway and open space abuts street right-of-way shall be one thousand (1,000) feet.

5) The centerline of the drainage channel that drains a one hundred twenty (120) acre or larger drainage basin shall be located no less than fifty (50) feet from any street or property line provided that the dimensions of the drainage way and open space area conform to all other requirements of this Section. The minimum distance from centerline shall be twenty (20) feet along smaller drainageways.

6) Drainageway and open space shall be left in its natural condition or graded to a section approved by the Jurisdiction which will allow economical and efficient maintenance and shall be stabilized with permanent vegetative cover.

(D) *Open Channel on Private Property Within a Drainage or Drainage Maintenance and Utility Easement:*

1) This Section applies to open channels on private property within a drainage or drainage maintenance and utility easement.

2) The drainage or drainage maintenance and utility easement shall include the required drainage channel and the land between the channel and the natural one-hundred-year flood contour as determined by FEMA or by calculations approved by the US Army Corps of Engineers; or, in some cases, it may be reduced by modifying the easement topography to a typical required drainage channel section as provided for in this Section. However, the minimum total width of easement shall be no less than specified below.

Drainage Basin	Required Distance from Stream Centerline	Minimum Total Easement Width
2-6 acres	15 ft.	30 ft.
6.01-25 acres	30 ft.	60 ft.
25.01 or more acres	55 ft.	110 ft.

The easement width shall be centered on the typical required drainage channel section, unless the Technical Review Committee approves other easement alignments because of topographic conditions. Concentrated drainage from less than a two (2) acre drainage basin, exiting a public right-of-way, shall be as conveyed into a drainage easement as specified below:

- a) Thirty (30) feet wide for the length of channel for concentrated flow existing public right-of-way into a defined channel.
  - b) Minimum thirty (30) feet wide by fifty (50) feet in length for concentrated flow exiting public right-of-way onto terrain with no pronounced drainage features
- 3) In case of severe topography, additional width may be required to assure reasonable ease of maintenance.
- 4) The easement topography may be modified if permitted under other applicable local and state regulations (stream buffer, NC Division of Water Quality 401/U.S. Army Corps of Engineers 404, etc.). In such cases, the approved typical required drainage channel section shall include the necessary channel to accommodate a one hundred (100) year flood event and be in accordance with the Guilford County Storm Sewer Design Manual. The area outside of the required drainage channel may be filled; but any resulting slope shall be no steeper than two (2) feet horizontal to one (1) foot vertical, unless the slope is protected by masonry paving, rip-rap, or other material which meets the Jurisdiction's specifications. If the channel has been altered such that the design flow cannot be contained within the recorded easement, a corrected easement shall be recorded to show the altered location and width.
- 5) If the Technical Review Committee determines suitable access to the easement is not otherwise provided, access shall be guaranteed by a suitably located access easement which shall be no less than twenty (20) feet in width.



6) It shall be the responsibility of the owner to maintain all drainageways located on the property. If the Governing Body determines that it is in the public interest to alter the typical required channel section and/or profile of the stream to improve flow, the Jurisdiction may enter the property within the indicated access or drainage maintenance and utility easement and carry out the necessary work without liability for any damage to the property, or improvements thereon, located within the easement.

7) Drainage maintenance and utility easements may be utilized for any underground utility provided that:

a) Underground utility lines to be installed by any utility provider other than the Jurisdiction shall be subject to approval by the Enforcement Officer, or designee.

b) The government agency, public utility, or private company installing underground lines after development has been completed by the owner of the property shall be responsible for the replacement of all fencing, pavement and grassed areas disturbed by such installation.

c) The Jurisdiction shall not be responsible for damage caused by the installation of additional lines by any public or private utility company.

d) The Jurisdiction shall not be liable for damages to any improvements located within the drainage maintenance and utility easement area caused by maintenance of utilities located therein.

8) No buildings or structures except for water-related improvements shall be placed or constructed within the access or drainage maintenance and utility easement. All drives, parking areas, or other improvements, shall be constructed no closer than two (2) feet horizontally from the top of any back slope along any open watercourse.

(E) *Modifications to Drainage or Drainage Maintenance and Utility Easement:*

1) This section applies to all recorded drainage or drainage maintenance and utility easements. This shall include other recorded easements identified by an assortment of varying names in which one of the principal functions is to convey runoff from stormwater.

2) Unless strictly prohibited under other applicable sections, easements may be modified, altered, or relocated with prior approval by the Enforcement Officer, or designee based upon review of certification with supporting technical data by a registered design professional. Supporting data shall be in accordance with the Guilford County Storm Sewer Design Manual and must clearly demonstrate that such modifications will not result in any increase in flood levels or create any adverse impacts during the occurrence of the design flow discharge. Approval criteria shall include but not be limited to: system capacity to adequately convey design flow discharge, location of outlet/discharge, resistance to erosive forces, potential to adversely impact neighboring properties, system maintenance requirements, existing utilities, other applicable local, state, and federal regulations.

3) Any alteration of a drainage or drainage maintenance and utility easement without prior approval may be deemed a violation and subject to enforcement actions. Nothing in this section shall prohibit the installation of utilities as allowed by other sections.

#### **11-1.9. Stream Buffer Required.**

(A) Riparian Buffer Protection for Lands within the Jordan Lake Watershed

1) **Authority:** Section 11-1.9(A) is adopted pursuant to the authority vested in the Town of Whitsett 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 160A, Article 19, and any special legislation enacted by the General Assembly for The Town of Whitsett.

2) **Purpose and Intent:** The purposes of the Town in adopting Section 11-1.9(A) 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 Ordinance will help protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. The requirements of Section 11-1.9(A) shall supersede all other locally implemented buffer requirements as outlined in Section 11-1.9(B).

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.

- 3) **Jurisdiction:** Section 11-1.9(A) shall be applied to all land in the planning jurisdiction of the Town that is located within the Jordan Reservoir Watershed. The Jordan Reservoir Watershed includes the Lake Mackintosh and non-water supply watersheds that overlay the Town as designated on the Stormwater Map of Guilford County.
- 4) **Applicability:** Section 11-1.9(A) applies to all landowners and other persons conducting activities in the area described in Section 11-1.9(A)3), 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.
- 5) **Riparian Area Protection within the Jordan Reservoir Watershed**
  - a. **Buffers Protected**

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

    - i. Section 11-1.9(A) shall apply to activities conducted within, or outside of with hydrologic impacts in violation of the diffuse flow requirements set out in Section 11-1.9(A)5)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.
    - ii. 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.

- iii. For the purpose of this Ordinance, only one of the following types of maps shall be used for purposes of identifying a water body subject to the requirements of this ordinance:
  - (1) The most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture.
  - (2) The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS).
  - (3) 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 11-1.9(A)5)c of this Ordinance.
- iv. 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 Town shall make an on-site determination. A Town 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](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 Town 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.
- v. Riparian buffers protected by this Ordinance shall be measured pursuant to Section 11-1.9(A)5)d of this Ordinance.

NOTE: All stream buffers shall be identified on a recorded plat as "Drainage and Stream Buffer Easement" or dedicated as public open space when development or any portion of the development is required to be platted and recorded pursuant to other applicable sections of this Ordinance.
- vi. 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.

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

b. 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 Town. Upon request, a Town 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 Town 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:

- i. 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.)
- ii. Ephemeral streams.
- iii. The absence on the ground of a corresponding intermittent or perennial stream, lake, reservoir, or pond.
- iv. Ditches or other man-made water conveyances, other than modified natural streams.

c. 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:

- i. 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.

ii. Projects or proposed development that are determined by the Town to meet at least one of the following criteria:

(1) 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.

(2) 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;

(3) 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 the Ordinance, or

(4) 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 written approval of the Town prior to the effective date of this Ordinance.

d. Zones of the Riparian Buffer

The protected riparian buffer shall have two zones as follows:

i. Zone One shall consist of a vegetated area that is undisturbed except for uses provided for in the Table of Uses, Section 11-

1.9(A)6)b of this Ordinance. The location of Zone One shall be as follows:

(1) 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.

(2) 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.

ii. Zone Two shall consist of a stable, vegetated area that is undisturbed except for uses provided for in the Table of Uses, Section 11-1.9(A)6)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.

e. **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:

i. 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;

ii. Periodic corrective action to restore diffuse flow shall be taken as necessary and shall be designed to impede the formation of erosion gullies; and

iii. As set out in Sections 11-1.9(A)5)d and 11-1.9(A)6)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 11-1.9(A)6)b of this Ordinance, addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

**6) Potential Uses and Associated Requirements**

a. **Approval for New Development**

The Town of Whitsett shall issue an approval for new development only if the development application proposes to avoid impacts to riparian buffers defined in Section 11-1.9(A)5)a of this Ordinance,

or where the application proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

- i. Determined the activity is exempt from requirements of this Ordinance;
- ii. Received an Authorization Certificate from the Town pursuant to Section 11-1.9(A)7)a of this Ordinance;
- iii. For uses designated as Allowable with Mitigation in the Table of Uses in Section 11-1.9(A)6)b, received approval of mitigation plan pursuant to Section 11-1.9(A)7)c of this Ordinance; and
- iv. Received a variance pursuant to Section 11-1.9(A)7)b.

b. 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 11-1.9(A)7)b of this Ordinance, Variances. The requirements for each category are given in Section 11-1.9(A)6)c of this Ordinance 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> <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> </ul>	X	X	

Use	Exempt *	Allowable *	Allowable with Mitigation*
Airport facilities: <ul style="list-style-type: none"> <li>• Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer</li> <li>• Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer</li> <li>• Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)<sup>1</sup></li> </ul>		X   X	   X
Archaeological activities	X		
Bridges		X	
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		
Dam maintenance activities: <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> </ul>	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 11-1.9(A)6)c of this Ordinance.



Use	Exempt *	Allowable *	Allowable with Mitigation*
<p>Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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</li> <li>• 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.</li> </ul>	<p style="text-align: center;">X</p>	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p>	<p style="text-align: center;">X</p>
<p>Draining a pond in a natural drainageway where a riparian protection area is established adjacent to a the new channel</p>	<p style="text-align: center;">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 11-1.9(A)6)c of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Driveway crossings of streams and other surface waters subject to this Ordinance: <ul style="list-style-type: none"> <li>• 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</li> <li>• Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer</li> <li>• In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer</li> <li>• In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer</li> </ul>	X	X  X	X
Driveway impacts other than crossing of a stream or other surface waters subject to this Ordinance			X
Fences: <ul style="list-style-type: none"> <li>• Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Ordinance</li> <li>• Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Ordinance</li> </ul>	X	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 11-1.9(A)6c 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	
<p>Mining activities:</p> <ul style="list-style-type: none"> <li>• Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Sections 11-1.9(A)6d and 11-1.9(A)6e of this Ordinance are established adjacent to the relocated channels</li> <li>• Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements of Sections 11-1.9(A)6d and 11-1.9(A)6e of this Ordinance are not established adjacent to the relocated channels</li> <li>• Wastewater or mining dewatering wells with approved NPDES permit</li> </ul>	X	X	X
<p>Playground equipment:</p> <ul style="list-style-type: none"> <li>• Playground equipment on single family lots provided that installation and use does not result in removal of vegetation</li> <li>• Playground equipment installed on lands other than single-family lots or that requires removal of vegetation</li> </ul>	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 11-1.9(A)6c of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Ponds created by impounding streams and not used as stormwater BMPs: <ul style="list-style-type: none"> <li>• New ponds provided that a riparian buffer that meets the requirements of Sections 11-1.9(A)6d and 11-1.9(A)6e of this Ordinance is established adjacent to the pond</li> <li>• New ponds where a riparian buffer that meets the requirements of Sections 11-1.9(A)6d and 11-1.9(A)6e of this Ordinance is NOT established adjacent to the pond</li> </ul>		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: <ul style="list-style-type: none"> <li>• Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer</li> <li>• 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</li> <li>• Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer</li> </ul>	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 11-1.9(A)6c of this Ordinance.



Use	Exempt *	Allowable *	Allowable with Mitigation*
Road relocation: Relocation of existing private access roads associated with public road projects where necessary for public safety: <ul style="list-style-type: none"> <li>• Less than or equal to 2,500 square feet of buffer impact</li> <li>• Greater than 2,500 square feet of buffer impact</li> </ul>		X	X
Stormwater BMPs: <ul style="list-style-type: none"> <li>• Wet detention, bioretention, and constructed wetlands in Zone Two if diffuse flow of discharge is provided into Zone One</li> <li>• Wet detention, bioretention, and constructed wetlands in Zone One</li> </ul>		X	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 11-1.9(A)7)c.vii of this Ordinance: <ul style="list-style-type: none"> <li>• Less than or equal to 2,500 square feet of buffer disturbance</li> <li>• Greater than 2,500 square feet of buffer disturbance</li> <li>• Associated with culvert installation or bridge construction or replacement.</li> </ul>	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 11-1.9(A)6)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 11-1.9(A)7)c.vii of this Ordinance:</p> <ul style="list-style-type: none"> <li>• 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 11-1.9(A)6)e of this Ordinance.</li> <li>• In Zones one and two to control impacts associated with uses approved by Whitsett 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.</li> <li>• 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.</li> <li>• In-stream temporary erosion and sediment control measures for work within a stream channel.</li> </ul>	<p>X</p> <p>X</p>	<p>X</p> <p>X</p>	
<p>Utility, electric, aerial, perpendicular crossings of stream and other surface waters subject to this Ordinance<sup>2,3,5</sup>:</p> <ul style="list-style-type: none"> <li>• Disturb equal to or less than 150 linear feet of riparian buffer</li> <li>• Disturb greater than 150 linear feet of riparian buffer</li> </ul>	<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 11-1.9(A)6)c of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Utility, electric, aerial, other than perpendicular crossings <sup>5</sup> : <ul style="list-style-type: none"> <li>• Impacts in Zone Two</li> <li>• Impacts in Zone One<sup>2,3</sup></li> </ul>		X	X
Utility, electric, underground, perpendicular crossings <sup>3,4,5</sup> : <ul style="list-style-type: none"> <li>• Disturb less than or equal to 40 linear feet of riparian buffer</li> <li>• Disturb greater than 40 linear feet of riparian buffer</li> </ul>	X	X	
Utility, electric, underground, other than perpendicular crossings <sup>4</sup> : <ul style="list-style-type: none"> <li>• Impacts in Zone Two</li> <li>• Impacts in Zone One<sup>1</sup></li> </ul>	X X		
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Ordinance <sup>3,5</sup> : <ul style="list-style-type: none"> <li>• 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</li> <li>• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width</li> <li>• 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</li> <li>• 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</li> <li>• Disturb greater than 150 linear feet of riparian buffer</li> </ul>	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 11-1.9(A)6c of this Ordinance.



Use	Exempt *	Allowable *	Allowable with Mitigation*
Utility, non-electric, other than perpendicular crossings <sup>4,5</sup> : <ul style="list-style-type: none"> <li>• Impacts in Zone Two</li> <li>• Impacts in Zone One</li> </ul>		X	X
Vegetation management: <ul style="list-style-type: none"> <li>• Emergency fire control measures provided that topography is restored</li> <li>• Mowing or harvesting of plant products in Zone Two</li> <li>• Planting vegetation to enhance the riparian buffer</li> <li>• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised</li> <li>• 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.</li> <li>• Removal of individual trees which are dead, diseased or damaged.</li> <li>• Removal of poison ivy</li> <li>• 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> </li> </ul>	X  X X X  X  X X		
<ul style="list-style-type: none"> <li>• 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.</li> </ul>		X	
<ul style="list-style-type: none"> <li>• Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers.</li> </ul>		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 11-1.9(A)6c of this Ordinance.

Use	Exempt *	Allowable *	Allowable with Mitigation*
Water supply reservoirs: <ul style="list-style-type: none"> <li>• New reservoirs where a riparian buffer that meets the requirements of Sections 11-1.9(A)6d and 11-1.9(A)6e of this Ordinance is established adjacent to the reservoir</li> <li>• New reservoirs where a riparian buffer that meets the requirements of Sections 11-1.9(A)6d and 11-1.9(A)6e of this Ordinance is not established adjacent to the reservoir</li> </ul>		X	X
Water wells <ul style="list-style-type: none"> <li>• Single family residential water wells</li> <li>• All other water wells</li> </ul>	X	X	
Wetland, stream and buffer restoration that results in impacts to the riparian buffers: <ul style="list-style-type: none"> <li>• Wetland, stream and buffer restoration that requires NC Division of Water Quality approval for the use of a 401 Water Quality Certification</li> <li>• Wetland, stream and buffer restoration that does not require Division of Water Quality approval for the use of a 401 Water Quality Certification</li> </ul>	X	X	
Wildlife passage structures		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 11-1.9(A)6c of this Ordinance.

<sup>1</sup>Provided 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 11-1.9(A)6d and 11-1.9(a)6e.

<sup>2</sup>Provided 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 Town, as defined in Section 11-1.9(A)7a.

- 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.

<sup>3</sup>Provided that poles or aerial infrastructure shall not be installed within 10 feet of a water body unless Whitsett completes a no practical alternative evaluation as defined in Section 11-1.9(A)7)a.

<sup>4</sup>Provided 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 Whitsett, as defined in Section 11-1.9(A)7)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.

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

c. Requirements for Categories of Uses

Uses designated in Section 11-1.9(A)6)b of this Ordinance as exempt, allowable, and allowable with mitigation within a riparian buffer shall have the following requirements:

i. Exempt.

Uses designated as exempt are permissible without authorization by Whitsett provided that they adhere to the limitations of the activity as defined in Section 11-1.9(A)6)b of this Ordinance, 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.

ii. Allowable.

Uses designated as allowable may proceed provided that there are no practical alternatives to the requested use pursuant to Section 11-1.9(A)7)a of this Ordinance. This includes construction, monitoring, and maintenance activities. These uses require written authorization from the Town.

iii. 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 11-1.9(A)7)a of this Ordinance and an appropriate mitigation strategy has been approved pursuant to Section 11-1.9(A)7)a. These uses require written authorization from the Town.

**7) Permits Procedures, Requirements, and Approvals**

- a. Determination of No Practical Alternatives / Request for Authorization Certificate
  - i. 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 Town. The applicant shall certify that the project meets all the following criteria for finding ”no practical alternatives”:
    - (1) 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;
    - (2) 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
    - (3) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.
  - ii. The applicant shall also submit at least the following information in support of their assertion of “no practical alternatives”:
    - (1) The name, address and phone number of the applicant;
    - (2) The nature of the activity to be conducted by the applicant;
    - (3) The location of the activity, including the jurisdiction;
    - (4) 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;
    - (5) 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
    - (6) Plans for any best management practices proposed to be used to control the impacts associated with the activity.
  - iii. Within 60 days of a submission that addresses Section 11-1.9(A)7)a.ii, the Town shall review the entire project and make a finding of fact as to whether the criteria in Section 11-

1.9(A)7)a.i of this Ordinance 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:

- (1) The applicant agrees, in writing, to a longer period;
- (2) The Town determines that the applicant has failed to furnish requested information necessary to the Town decision;
- (3) The final decision is to be made pursuant to a public hearing; or
- (4) The applicant refuses access to its records or premises for the purpose of gathering information necessary to the Town’s decision.

iv. The Town may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of this Ordinance.

v. 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.

b. Variances

i. Requirements for Variances.

Persons who wish to undertake prohibited uses may pursue a variance. The Town may grant minor variances. For major variances, the Town shall prepare preliminary findings and submit them to the Division of Water Quality, 401 Oversight Express Permitting Unit, or its successor for approval by the Environmental Management Commission. The variance request procedure shall be as follows:

(1) For any variance request, the Town 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:

- (I) 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 Town 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;

- (II) The hardship results from application of this Ordinance to the property rather than from other factors such as deed restrictions or other hardship;
  - (III) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, such that compliance with provisions of this ordinance would not allow reasonable use of the property;
  - (IV) The applicant did not cause the hardship by knowingly or unknowingly violating this Ordinance;
  - (V) The applicant did not purchase the property after the effective date of this Ordinance, and then request a variance; and
  - (VI) The hardship is rare or unique to the applicant's property.
- (2) 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
  - (3) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

ii. 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 11-1.9(A)7)a.i. through Section 11-1.9(A)7)a.iii by the Town pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The Town 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 Town 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.

iii. 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 Whitsett has determined that a major variance request meets the requirements in Section 11-1.9(A)7)b.i, 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 Whitsett, 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.

c. Mitigation

i. This item shall apply to persons who wish to impact a riparian buffer in the Jordan watershed when one of the following applies:

(1) A person has received an Authorization Certificate pursuant to Section 11-1.9(A)7)a of this Ordinance for a proposed use that is designated as “allowable with mitigation;” or

(2) A person has received a variance pursuant to Section 11-1.9(A)7)b of this Ordinance and is required to perform mitigation as a condition of a variance approval.

ii. Issuance of the Mitigation Approval

Whitsett 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.

iii. Options for Meeting the Mitigation Requirement

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

(1) 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;

(2) Donation of real property or of an interest in real property pursuant to Section 11-1.9(A)7)c.vi of this Ordinance; or

(3) Restoration or enhancement of a non-forested riparian buffer pursuant to the requirements of Section 11-1.9(A)7)c.vii of this Ordinance.

iv. The Area of Mitigation

Whitsett shall determine the required area of mitigation, which shall apply to all mitigation options identified in Section 11-1.9(A)7)c.iii of this Ordinance and as further specified in the requirements for each option set out in this Section, according to the following:

- (1) The impacts in square feet to each zone of the riparian buffer shall be determined by Whitsett by adding the following:
  - (I) The area of the footprint of the use causing the impact to the riparian buffer;
  - (II) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use; and
  - (III) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.
- (2) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Section 11-1.9(A)7)c.iv.(1) of this Ordinance to each zone of the riparian buffer:
  - (I) Impacts to Zone One of the riparian buffer shall be multiplied by three;
  - (II) Impacts to Zone Two of the riparian buffer shall be multiplied by one and one-half; and
  - (III) 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.

v. 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 11-1.9.(A)(7)c.vi.(3)(I) of this Ordinance.



vi. 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 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 11-1.9(A)7)c.vi.(4)(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.
- (2) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.
- (3) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:
  - (I) In addition to the location requirements of Section 11-1.9(A)7)c.v 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;
  - (II) 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 11-1.9(A)7)c.vii.(4) of this Ordinance;
  - (III) 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;
  - (IV) 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 11-1.9(A)7)c.iv of this Ordinance;

- (V) Restoration shall not require removal of man-made structures or infrastructure;
  - (VI) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;
  - (VII) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and transaction costs;
  - (VIII) 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;
  - (IX) The property shall not contain any hazardous substance or solid waste;
  - (X) 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;
  - (XI) 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
  - (XII) The property shall not have any encumbrances or conditions on the transfer of the property interests.
- (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:
- (I) Documentation that the property meets the requirements laid out in Section 11-1.9(A)7)c.vi.(3) of this Ordinance;
  - (II) 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;
  - (III) 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;

(IV) 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

(V) A title certificate.

vii. 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:
  - (I) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Section 11-1.9(A)7)c.iv of this Ordinance; or
  - (II) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Section 11-1.9(A)7)c.iv of this Ordinance;
- (2) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Section 11-1.9(A)7)c.v 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 11-1.9(A)7a of this Ordinance. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Town of Whitsett. The restoration or enhancement plan shall contain the following:

- (I) A map of the proposed restoration or enhancement site;
- (II) 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;
- (III) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer;
- (IV) A fertilization plan; and
- (V) A schedule for implementation;

(6) Within one year after the Town has approved the restoration or enhancement plan, the applicant shall present proof to Whitsett 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 Town's 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.

## **8) Site Inspections and Enforcement**

### **a. Site Inspections**

- i. Agents, officials, or other qualified persons authorized by the Town may periodically inspect riparian buffers to ensure compliance with this ordinance.
- ii. Notice of the right to inspect shall be included in the letter of approval of each variance and buffer authorization.
- iii. 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 Whitsett, 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 Town shall have the power to conduct such investigations as deemed reasonably necessary to carry out the duties as prescribed in this Ordinance.

- iv. 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 and subject to enforcement actions under Article 8.

## 9) **Definitions**

For the purpose of the Jordan Watershed, these terms shall be defined as follows:

- a. 'Access Trails' means pedestrian trails constructed of pervious or impervious surfaces and related structures to access a surface water, including boardwalks, steps, rails, and signage.
- b. 'Airport Facilities' means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definitions or uses of the words or phrases 'air navigation facility', 'airport', or 'airport protection privileges' under G.S. 63-1; the definition of 'aeronautical facilities' in G.S. 63-79(1); the phrase 'airport facilities' as used in G.S. 159-48(b)(1); the phrase 'aeronautical facilities' as defined in G.S. 159-81 and G.S. 159-97; and the phrase 'airport facilities and improvements' as used in Article V, Section 13, of the North Carolina Constitution, which shall include, without limitation, any and all of the following: airports, airport maintenance facilities, clear zones, drainage ditches, fields, hangars, landing lighting, airport and airport-related offices, parking facilities, related navigational and signal systems, runways, stormwater outfalls, terminals, terminal shops, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights-of-way; restricted landing areas; any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience to the safe taking off, navigation, and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area; easements through, or interests in, air space over land or water, interests in airport hazards outside the boundaries of airports or restricted landing areas, and other protection privileges, the acquisition or control of which is necessary to ensure safe approaches to the landing areas of airports and restricted landing areas, and the safe and efficient operation thereof and any

combination of any or all of such facilities. Notwithstanding the foregoing, the following shall not be included in the definition of ‘airport facilities’:

- i. Satellite parking facilities;
  - ii. Retail and commercial development outside of the terminal area, such as rental car facilities; and
  - iii. Other secondary development, such as hotels, industrial facilities, free-standing offices and other similar buildings, so long as these facilities are not directly associated with the operation of the airport, and are not operated by a unit of government or special governmental entity such as an airport authority, in which case they are included in the definition of ‘airport facilities’.
- c. ‘Channel’ means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.
  - d. ‘DBH’ means diameter at breast height of a tree measured at 4.5 feet above ground surface level.
  - e. ‘Development’ means the same as defined in Rule 15A NCAC 2B .0202(23).
  - f. ‘Ditch or canal’ means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.
  - g. ‘Ephemeral stream’ means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.
  - h. ‘Greenway / Hiking Trails’ means pedestrian trails constructed of pervious or impervious surfaces and related structures including *but not limited to boardwalks, steps, rails, and signage, and that generally run parallel to the shoreline.*
  - i. ‘High Value Tree’ means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; or for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

- j. ‘Intermittent stream’ means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.
- k. ‘Jordan nutrient strategy’ or ‘Jordan water supply nutrient strategy’ means the set of Rules 15A NCAC 2B .0262 through .0273 and .0311(p).
- l. ‘Jordan Reservoir’ means the surface water impoundment operated by the US Army Corps of Engineers and named B. Everett Jordan Reservoir, as further delineated for purposes of the Jordan nutrient strategy in Rule 15A NCAC 2B .0262(4).
- m. ‘Jordan watershed’ means all lands and waters draining to B. Everett Jordan Reservoir.
- n. “Perennial stream” means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.
- o. “Perennial waterbody” means a natural or man-made basin, including lakes, ponds, and reservoirs, that stores surface water permanently at depths sufficient to preclude growth of rooted plants. For the purpose of the State’s riparian buffer protection program, the waterbody must be part of a natural drainage way (i.e., connected by surface flow to a stream).
- p. ‘Shoreline stabilization’ is the in-place stabilization of an eroding shoreline. Stabilization techniques which include “soft” methods or natural materials (such as root wads, or rock vanes) may be considered as part of a restoration design. However, stabilization techniques that consist primarily of “hard” engineering, such as concrete lined channels, riprap, or gabions, while providing bank stabilization, shall not be considered stream restoration.
- q. ‘Stream restoration’ is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and flood-prone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This process also includes restoring the geomorphic dimension, pattern, and profile as well as biological and chemical integrity, including transport of water and sediment produced by the stream’s watershed in order to achieve dynamic equilibrium. ‘Referenced’ or ‘referenced reach’ means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. A

reference reach can be used to develop natural channel design criteria for stream restoration projects.

- r. Stream” means a body of concentrated flowing water in a natural low area or natural channel on the land surface.
- s. ‘Stump diameter’ means the diameter of a tree measured at six inches above the ground surface level.
- t. “Surface waters” means all waters of the state as defined in G.S. 143-212 except underground waters
- u. “Tree” means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.
- v. ‘Temporary road’ means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures such as bridges, culverts, pipes or water dependent structures, or to maintain public traffic during construction.

- 10) Effective Date:** This Section of the Ordinance will become effective upon approval by the NC Environmental Management Commission and adoption by the Town Council. [Adopted 6/12/12; effective 8/10/14]

**11-1.10. Stream Channelization.**

Perennial Streams in water supply district shall not be channelized without prior approval by the Town Council.

**11-1.11. Activities Regulated by Other Governmental Agencies.**

(A) *Designated Agencies:* The following are the designated agencies responsible for implementing the requirements of the Water Supply Watershed Protection Rules as adopted by the N.C. Environmental Management Commission for the specified activity:

- 1) Agriculture-Guilford Soil and Water Conservation District;
- 2) Silviculture-N.C. Division of Forest Resources.

(B) *Transportation:* The North Carolina Department of Transportation shall comply with the practices outlined in its document entitled "Best Management Practices for the Protection of Surface Waters," which is incorporated by reference.

(C) *Hazardous Materials:*

- 1) The Guilford County Fire Marshal and the Guilford County Emergency Management Assistance Agency are the designated management agencies responsible for implementing the provisions of this Subsection pertaining to hazardous materials.
- 2) An inventory of all hazardous materials used and stored in the watershed shall be maintained. A spill/failure containment plan and appropriate safeguards against contamination are required. Waste minimization and appropriate recycling of materials is encouraged.
- 3) Properties in the WCA or GWA shall comply with the requirements of the following hazardous substances regulations if materials listed in the Superfund Amendments and Reauthorization Act (SARA) Section 302 Extremely Hazardous Substances (42 USC 11000 et seq.), or Section 311 of the Clean Water Act, as amended (CWA) (33 USC 1251 et seq.; oil and hazardous substances) are stored or used on the site.

**11-1.12. Variances.**

(A) *General:*

- 1) Requests for stormwater management/watershed protection variances shall be submitted in writing on forms supplied by the governing jurisdiction and with a completed stormwater



management/watershed development plan showing all pertinent information relative to the site in question. Information not shown on the stormwater management/watershed development plan or not presented in writing shall not be considered pertinent to the variance request.

2) For each request for a minor or major stormwater management/watershed variance, the Enforcement Officer shall notify all other local governments having jurisdiction within the same water supply watershed or using the affected water supply for consumption. A comment period of at least fourteen (14) days shall be allowed before the Town Council hearing.

3) In granting variances the jurisdiction may require such conditions as will secure, insofar as practicable, the objectives of the requirements being modified.

4) The applicant must demonstrate hardship that the regulations impose on the property, not just apply for a waiver of the rules.

5) The applicant must submit a plan that demonstrates equal or better performance than the current regulations.

6) Before the Governing Body may grant a minor watershed variance or recommend approval to the North Carolina Environmental Management Commission (EMC) for a major variance, it shall make the following three findings, and shall include the factual reasons on which they are based.

a) There are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the watershed requirements, and all of the following conditions exist:

i) If the applicant complies with the provisions of this rule, the applicant can secure no reasonable return from, nor make reasonable use of the subject 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 EMC or Enforcement Officer, or designee shall consider whether the variance is the minimum possible deviation from the terms of the rule that shall make reasonable use of property possible.

ii) The hardship results from the application of the rule to the property rather than from other factors such as deed restrictions or other hardships.

iii) The hardship is due to the physical nature of the applicant's property, such as size, shape, or topography, which is different from that of neighboring properties.

iv) The applicant did not cause the hardship by knowingly or unknowingly violating the Rule.

v) The applicant did not purchase the property after the effective date of the Rule, and then request an appeal to maximize the use of the property. The applicant is entitled to a variance if a valid hardship is demonstrated.

vi) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.

b) The variance is in harmony with the general purpose and intent of the Ordinance and preserves its spirit.

c) In the granting of the variance the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(B) *Minor Stormwater/Watershed Variances:* The Town Council is designated to approve minor stormwater management and watershed variances. Any minor variance approved by the Town Council may be appealed to the governing body within fifteen (15) days.

(C) *Major Stormwater/Watershed Variances:* The North Carolina Environmental Management Commission (EMC) is designated to approve major stormwater management and watershed variances. The review process shall be the same as in subsection (B) above, except that the Governing Body shall make recommendations to the EMC. The Variance application, hearing notices, and minutes from each committee and board review shall be forwarded to the EMC, which shall approve or deny the variance.

#### 11-1.13. Watershed Reporting.

*Stormwater Management/Watershed Variances:* The Enforcement Officer shall keep a record of all stormwater management/watershed variances. This record shall be submitted for each calendar

year to the Division of Water Quality Management on or before January 1st of the following year and shall provide a description of each project receiving a minor or major variance and the reasons for granting the variance.

## 11-2. WATERSHED PROTECTION DISTRICTS AND PERFORMANCE STANDARDS

### 11-2.1. National Pollutant Discharge Elimination System (NPDES).

(A) *District Boundaries:* The NPDES district covers all the territory encompassed in Whitsett, North Carolina.

(B) *Maximum Development Density and Minimum Lot Size:*

- 1) All developments located in the NPDES non-water supply district shall be limited to the maximum density and minimum lot size based upon the development's current zoning.
- 2) All developments located in the NPDES water supply district shall follow the density and development requirements of the GWA and WCA performance tables.

(C) *Performance Standards:* The Stormwater Management/Watershed Development Plan for any development covered by this Section shall be prepared and submitted in accordance with the performance standards found in Table 11-2-1. The owner, developer, or person submitting the Stormwater Management/Watershed Development Plan shall indicate which performance standard they have chosen for review and approval. Development that cumulatively disturbs less than one acre is exempt from the requirements of this section

Table 11-2-1  
NPDES Performance Standards

DISTRICT	LOW DENSITY OPTION	HIGH DENSITY OPTION <sup>a</sup>
NPDES, non-water supply areas	2 DU/1 AC; 0-24% BUA	greater than 2 DU/1 AC; greater than 24% BUA

<sup>a</sup> Development under the High Density Option shall require Engineering Statement by a registered professional engineer, with seal (Article 11-1.6(B)) certifying the control and treatment of the run-off from a one (1) inch rain and the discharge of the storage volume shall be equal to or less than the predevelopment discharge rate for the one-year, 24-hour storm.

NOTES:

- 1) DU = Dwelling Unit(s); AC=Acre; Percentage (%) refers to built-upon area of the zone lot, parcel, or tract.
- 2) Single family detached residential developments will be evaluated on the basis of dwelling units per acre.
- 3) All other residential and all non-residential developments will be evaluated on the basis of built-upon area percentage.

(D) *Runoff Control:* When runoff control is required for development using the high density option the runoff control shall be by use of a best management practice meeting the performance standards of the following:

- 1) Control and treat the runoff from the first one inch of rain.

- 2) Discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one-year, 24-hour storm.
- 3) Remove an eighty-five (85%) percent average annual amount of Total Suspended Solids and meeting the guidelines in the latest edition of the Guilford County Water Quality Protection Manual.
- 4) Drawdown of treatment volume shall be no faster than forty-eight (48) hours but no slower than one hundred twenty (120) hours.

**11-2.2. General Watershed Areas (GWA).**

(A) *GWA District Boundaries:* The GWA district extends from the outer boundary of the WCA to the outer boundary of the watershed of a designated water supply reservoir or intake.

(B) *Maximum Development Density and Minimum Lot Size:* All developments in the GWA, not utilizing Public Sewer, shall be limited to the maximum density of 1 DU/1 Acre and minimum lot size based upon the development's current zoning. The minimum required lot size shall not include the area in a Special Purpose Lot used for Off-site Sewage Treatment Systems. Developments utilizing Public Sewer shall be limited to the maximum density shown in Table 11-2-2 and minimum lot size based upon the Development's current zoning.

(C) *Performance Standards:* The Watershed Development Plan for any development covered by this Section shall be prepared and submitted in accordance with the performance standards found in Table 11-2-2. The owner, developer, or person submitting the Watershed Development Plan shall indicate which performance standard they have chosen for review and approval. Development in the Lake Mackintosh watershed that cumulatively disturbs less than one acre is exempt from the requirements of this section.

Table 11-2-2  
GWA Performance Standards

WATERSHED	LOW DENSITY OPTION	HIGH DENSITY OPTION <sup>a</sup>
<u>WS-IV</u> Lake Mackintosh (Big Alamance Creek)	2 DU/1 AC; 0-24% BUA	greater than 2 DU/1 AC; 24.01%-70% BUA

<sup>a</sup> Development under the High Density Option shall require Engineering Statement by a registered professional engineer, with seal (Article 11-1.6(B)) certifying the control and treatment of the run-off from a one (1) inch rain and the discharge of the storage volume shall be equal to or less than the predevelopment discharge rate for the one-year, 24-hour storm.

NOTES:

1. DU = Dwelling Unit(s); AC=Acre; Percentage (%) refers to built-upon area of the zone lot, parcel, or tract.
2. Single family detached residential developments will be evaluated on the basis of dwelling units per acre
3. All other residential and all non-residential developments will be evaluated on the basis of built-upon area percentage

(D) *Runoff Control:* When runoff control is required for development using the high density option [see definition in Section 2-1.2 (Drainage and Watershed Protection) and Table 2-1-1] the runoff control shall be by use of a best management practice meeting the performance standards of the following:

- 1) Control and treat the runoff from the first one inch of rain.

- 2) Discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one-year, 24-hour storm.
  - 3) Remove an eighty-five (85%) percent average annual amount of Total Suspended Solids and meeting the guidelines in the latest edition of the Guilford County Water Quality Protection Manual.
  - 4) Drawdown of treatment volume shall be no faster than forty-eight (48) hours but no slower than one hundred twenty (120) hours.
- (E) *GWA-Watershed Classification WS-IV*: Development in all WS-IV watersheds shall not exceed seventy (70) percent maximum built-upon area.

**11-2.3. Watershed Critical Areas (WCA).**

(A) *General*. The Watershed Critical Area is a district covering the portion of the watershed adjacent to a designated existing or proposed water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed.

(B) *District Description*.

(1) *WCA Boundary*: The Guilford County Stormwater Management/Designated Water Supply Watershed Map shows the defined Watershed Critical Area boundaries. The WCA boundary shall not be less than one-half (1/2) mile from the normal pool elevation and draining to existing or proposed designated reservoirs.

(2) *Divisions within the Watershed Critical Area*: The WCA consists of four divisions as follows:

1) Tier 1

a) Tier 1 consists of those lands within two hundred (200) feet of the existing or proposed normal pool elevation  
 b) Tier 1 areas are intended for public purpose and should remain undisturbed.

2) Tier 2

a) Tier 2 consists of those lands lying within an area bounded by Tier 1 and a line parallel to and seven hundred and fifty (750) feet in distance from the normal pool elevation.

b) Tier 2 areas are intended primarily for public purpose with the following exception. Tier 2 areas surrounding Lake Mackintosh are not intended for public purpose unless and until more than twenty-five (25) percent of the WCA for the reservoir becomes urban in character, by meeting any of the tests defined in NCGS Section 160A-48(c).

3) Tier 3

a) Tier 3 consists of those lands lying within an area bounded by Tier 2 and a line parallel to and three thousand (3,000) feet from the normal pool elevation.

b) Tier 3 areas shall not exceed the WCA Boundary.

4) Tier 4: Tier 4 consists of those lands lying in the area between the outer boundary of Tier 3 and the WCA Boundary.

(C) *Runoff Minimization*: The density and built-upon area coverage limits defined in Table 11-3-1 shall apply within the WCA.

Table 11-3-1

WCA Density and Built-Upon Area Coverage Limits  
 (expressed as dwelling units/gross acre or % maximum)

	LOW DENSITY OPTION			
WATERSHED	Tier 1	Tier 2	Tier 3	Tier 4
Lake Mackintosh	N/A	1 DU/5 AC or less;	1 DU/3 AC or less;	1 DU/1 AC or less;

(Big Alamance Creek)		0-2.5%	0-4.0%	0-12.0%
WATERSHED	High Density Option (requires public sewer)			
	Tier 1	Tier 2	Tier 3	Tier 4
Lake Mackintosh (Big Alamance Creek)	N/A	1 DU/5 AC or less; 0-2.5%	2 DU/1 AC or less; 4.01-34%	2 DU/1 AC or less; 12.01-40%

NOTES:

- 1) DU= Dwelling Unit(s); AC = Acre; Percentage (%) refers to built-upon area of the zone lot, parcel, or tract.
- 2) Single family detached residential developments will be evaluated on the basis of dwelling units per acre
- 3) All other residential and all non-residential developments will be evaluated on the basis of built-upon area percentage

(D) *Land Disturbance Minimization:*

- 1) *Erosion Control Plan:* See Section 11-4.1 (General Requirements) to determine when an erosion control plan is required.
- 2) *Street Standards:* Refer to Article V (Subdivision: Procedures and Standards) for the minimum street standards. To the extent practicable, the construction of new roads in the WCA should be avoided.
- 3) *Land Disturbance:*
  - a) No land disturbing activity is allowed within stream buffers, open channel drainageways carrying runoff from a 6.01 acre or more drainage basin, greater than fifteen (15) percent slopes adjacent to drainageways, or Water Quality Conservation Easements, except for utilities, watershed devices, and road crossings.
  - b) The transfer of stormwater from a drainage area of five (5) acres or greater by piping or channeling between sub-basins within the Watershed Critical Area (WCA) is not permitted, unless approved by the Technical Review Committee. The piping or channeling of stormwater from the watershed critical area to a General Watershed Area (GWA) or to a non-watershed basin is allowed.
  - c) Land Disturbance Limits:

	Tier 1	Tier 2	Tier 3	Tier 4
Maximum Land Disturbance	NA	10% of usable property	60% of usable property	75% of usable property

Usable Property = (Total Site Area) - (Area in stream buffers, open channel drainageways carrying runoff from a 6.01 acre basin or greater, 15 percent slopes adjacent to drainageways, Water Quality Conservation Easements, floodplains, or natural wetlands)

(E) *Protection of Fragile Areas:*

- 1) Slopes greater than fifteen (15) percent and wetlands.
  - a) Slopes greater than fifteen (15) percent lying adjacent and parallel to natural drainageways or streams, and wetlands shall remain in a natural and undisturbed condition except for road crossings, utilities, erosion control devices and runoff control devices.
  - b) Dedication of these areas to the local jurisdiction and the public as drainageway and open space may be required wherever authorized by Article 11-1.8 or any other provision in local ordinances.
  - c) Where such dedication is not required, a water quality conservation easement shall be recorded over such wetlands and slopes.

- d) Where a water quality conservation easement serves to bring two (2) or more properties into compliance with WCA requirements, the Technical Review Committee may require that the wetlands and slopes covered by such easements be held as common area by an owners' association.
- 2) Drainage.
- a) Drainage shall be provided by means of open channels. Piping of drainage to cross roadways is allowed.
- b) All open channel drainageways carrying runoff from a 6.01 acre or greater drainage basin shall have protected channels or remain in a natural and undisturbed state, except for road crossings, utilities, erosion control devices and runoff control devices.
- c) The undisturbed area width shall be the easement width as specified in Article 11-1.8 (Drainage).
- 3) Development on the best soils and terrain of any site is encouraged.
- 4) Clustering of residential development may be required by the Technical Review Committee in accordance with Section 4-4.1(B) (Cluster Development).
- (F) *Spill Risk Reduction:*
- (1) *Prohibited Uses:* The following uses shall be prohibited in a WCA district:

	DESCRIPTION	SIC INDUSTRY GROUP MAJOR GROUP NUMBERS
a)	<u>Agricultural Uses</u>	
	Animal Feeder/Breeder	0210
b)	<u>Agricultural Services</u>	
	Chemical Treatment and Fertilizer Application for Crops, Weed Control for Crop Operations, including Aerial Crop Dusting	0710, 0721
c)	<u>Mining Uses</u>	
	Mining and Quarrying	1000
d)	<u>Business, Professional and Personal Services</u>	
	Automobile Rental or leasing	7510
	Automobile Repair Services, Major	0000
	Automobile Repair Services, Minor	0000

	Automobile Towing and Storage Services	7549
	Boat Repairs	3730
	Car Wash	7542
	Commercial Chemical and Biological Research	8731
	Furniture Stripping or Refinishing (including secondary or accessory operations)	7641
	Equipment Repair, Heavy	7690
	Agricultural Equipment Repair, Boiler Cleaning and Repair, Cesspool Cleaning, Engine Repair, except automotive, Farm Machinery Repair, Industrial Truck Repair, Machinery Cleaning, Motorcycle Repair Service, Rebabbitting, Repair of Service Station Equipment, Sewer Cleaning and Rodding, Tank and Boiler Cleaning Service, Tank Truck Cleaning Service, Tractor repair, and Welding Repair Shops	
	Heavy Construction Equipment Rental and Leasing	7350
	Lawn Care, Lawn Fertilizing Services, Lawn Spraying Services, Ornamental Shrub and Tree Services with Spraying	0780
	Laundry or Drycleaning Plant	7211, 7216, 7217, 7218
	Laundromats, Coin-operated	7215
	Pest or Termite Control Services	7342
	Septic Tank Services	7699
	Truck Driving Schools	8249
	Truck and Utility Trailer Rental and Leasing, Light	0000
	Truck Tractor and Semi Rental and Leasing, Heavy	0000
	Truck Washing	7542
e)	<u>Retail Trade</u>	
	Fuel Oil Sales	5980
	Convenience Stores with fuel pumps	5411
	Motor Vehicle Sales (new and used)	5511
	Motorcycle Sales	5571
	Recreational Vehicle Sales	5561
	Service Stations, gasoline (Excludes Tier 4)	5541
	Truck Stops	5541
f)	<u>Wholesale Trade</u>	

	Agricultural Chemicals, Pesticides, Fertilizers	5191
	Chemical and Allied Products	5169
	Motor Vehicles	5012
	Nursery Stock, Plants Potted	5193
	Paints and Varnishes	5198
	Petroleum and Petroleum Products	5170
	Scrap and Waste Materials	5093
g)	<u>Transportation, Warehousing, and Utilities</u>	
	Air Transportation Facilities	4789
	Bus Terminal and Service Facilities	4100, 4170
	Hazardous and Radioactive Waste (transportation, Storage, Disposal.)	4953
	Inert Debris Landfills, Major	0000
	Landfills of any character, minor or major in Lower Randleman Lake Watershed--WCA	0000
	Petroleum Contaminated Soil Remediation Disposal Sites	0000
	Pipelines, except Natural Gas	4600
	Railroad Terminal or Yard	4010
	Recycling Processing Centers	0000
	Refuse and Raw Material Hauling	4212
	Sanitary Sewer and Water Treatment Plant Sludge Application Sites	0000
	Sewage Treatment Plants	4952
	Solid Waste Disposal (nonhazardous)	4953
	Trucking or Freight Terminals	4230, 4213
h)	<u>Manufacturing and Industrial Uses</u>	
	Animal Slaughter or Rendering	0000 (2010)
	Arms and Weapons	3480
	Asbestos, Abrasive, and Related Products	3290
	Asphalt Plant	2951
	Batteries	3690
	Chemicals, Paints and Allied Products	2800
	Concrete, Cut Stone and Clay Products	3240, 3270
	Cement, Hydraulic	3241



Contractors, Heavy construction	1600
Contractors, Special Trade	1700
Dairy Products	2020
Fats and Oils, Animal	2077
Fats and Oils, Plant	2070
Fish, Canned, Cured or Frozen	2091
Leather and Leather Products (tanning)	3110
Magnetic and Optical Recording Media	3695
Meat and Poultry, Packing and Processing (no rendering)	2010
Metal Coating and Engraving	3470
Paper Products (no coating or laminating)	2670
Paper Products (coating or laminating)	2670
Petroleum and Related Products	2900
Primary Metal Products and Foundries	3300
Pulp and Paper Mills	2610
Rubber and Plastics, Misc.	3000
Rubber and Plastics, Raw	3000
Salvage Yards, Auto Parts	5015
Salvage Yard, Scrap Processing	5903
Solvent Recovery	7389
Surface Active Agents	2843
Textile Products, (no Dying and Finishing)	2200
Textile Products, (with Dying and Finishing)	2260

- i) No new or expansion of existing landfills of any description are permitted in the Lower Randleman watershed.
- 2) *Containment Structures:*
- a) Storage tanks for fuels and chemicals and associated pumping and piping shall be provided a spill containment system.
  - b) Such containment systems shall be of sufficient volume to contain one hundred (100) percent of all the tank(s) contents stored in the area and shall have a leak detection system installed.
  - c) The containment system shall be approved by the Enforcement Officer or designee and the Fire Marshal.
  - d) Such tanks and containment structures shall not be placed closer than one thousand (1,000) feet to the normal pool elevation of the existing or proposed reservoir.
- 3) *Underground Storage Tanks:* Underground storage tanks for fuels and chemicals shall not be permitted except as approved by the Town Council.
- 4) *Point Source Discharges:*
- a) No expansion of any existing private wastewater facilities or establishment of any new public or private wastewater treatment plants of any kind shall be permitted. On-site

individual residential septic systems approved by the Guilford County Health Department are permitted. Off-site individual residential septic systems are permitted in Tier 4 only, with a) reduction in overall density to 1 DU/1.25 Acre or less or b) in a Rural Preservation District (or equivalent clustered) zoning.

b) Industrial pre-treatment facilities which prepare wastewater for discharge into a public sewer system shall be permitted in WCA districts.

(G) *Storm Water Management:*

1) *Control of Run-off:* Run-off from built-upon areas shall be controlled as follows:

If the built-upon area is greater than twelve (12%) percent the runoff control shall be by use of a best management practice meeting the performance standards of the following:

1) Control and treat the runoff from the first one inch of rain.

2) Discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one-year, 24-hour storm.

3) Remove an eighty-five percent (85%) average annual amount of Total Suspended Solids, and meeting the guidelines in the latest edition of the Guilford County Water Quality Protection Manual.

4) Drawdown of treatment volume shall be no faster than forty-eight (48) hours, but no slower than one hundred twenty (120) hours.

2) *Design Approval:* All designs for runoff control structures, shall meet the requirements of Section 11-1.6 (Improvements) and shall be subject to the approval of the Enforcement Officer, or designee.

#### **11-2.4. Jordan Lake Watershed Area**

(A) General. Beginning with and subsequent to its effective date, this ordinance shall be applicable to all development and redevelopment in the Jordan Lake Watershed, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless exempt pursuant to this ordinance.

(B) Exemptions

1) Development in Jordan Lake Watershed that cumulatively disturbs less than one acre for single family, duplex residential property and recreational facilities and less than one-half acre for commercial, industrial, institutional, multifamily residential, or local government property and is not part of a Larger Common Plan of Development, Redevelopment or Sale is exempt from the nutrient loading requirements of the water quality control provisions of this section.

2) Development that cumulatively disturbs less than the thresholds mentioned above is not exempt if such activities are part of a Larger Common Plan of Development, Redevelopment or Sale, even though multiple, separate or distinct activities take place at different times on different schedules.

3) 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.

(C) New development and redevelopment within the Jordan Lake Watershed Districts is subject to nutrient loading requirements. The Load Accounting Tool approved by the Division of Water Quality shall be used to determine the predevelopment and postdevelopment nutrient loading rates of the new development and the required engineered stormwater controls to achieve the loading requirements set within this Section.

1) Nutrient loading contributed by new development shall not exceed 3.8 pounds per acre per year for nitrogen and 1.43 pounds per acre per year for phosphorus, except as provided

below. In cases where the postdevelopment loading targets estimated by the tool exceed the rate targets above, both of the following measures shall be taken:

- a) On-site Engineering Stormwater Controls  
Onsite stormwater controls shall achieve a loading rate for nitrogen that does not exceed 6 pounds per acre per year for single-family detached and duplex residential development and 10 pounds per acre per year for other development including multifamily residential, commercial and industrial.
  - b) Off-site management measures  
Off-site measures include utilizing a private mitigation bank or other method approved by the Division of Water Quality. Off-site management measures shall be used to offset the difference between the postdevelopment nitrogen and phosphorus loading rates, as determined by the tool, and the target rates of 3.8 pounds per acre per year for nitrogen and 1.43 pounds per acre per year for phosphorus.
- 2) Proposed new development that replaces or expands structures or improvements that legally existed after December 1, 2001, and results in a net increase in built-upon area shall meet one of the following requirements:
- a) The postdevelopment nutrient loading rates for nitrogen and phosphorous, as determined by the tool for the entire site, are 8% less for nitrogen and 5% less for phosphorus than the predevelopment nutrient loading rates.
  - b) The entire site meets the loading targets set in Subsection 1) above.