

**ARTICLE 300: DEVELOPMENT REGULATIONS.**

**Section 301. Establishment of Watershed Overlay Districts.**

To provide an additional layer of protection for drinking water supply watersheds, the following watershed overlay districts are established. Within each watershed shall be two tiers of control. The area nearest the water supply -- critical area -- shall have the higher level of regulation because proximity to the intake creates higher risk of contamination. The remaining part of the watershed -- balance of the watershed (WS-III) or protected area (WS-IV) -- shall have fewer restrictions because the greater distance from the point of intake lowers risk of contamination.

The following overlay districts shall apply to the watersheds in Archdale:

Uwharrie River (Lake Reece) .....WS-III-BW (Balance of Watershed)

Randleman Lake .....WS-IV-CA (Critical Area)

Randleman Lake .....WS-IV-PA (Protected Area)

**Section 302a. Uwharrie River (Lake Reece) Watershed - Balance of Watershed - WS-IIIBW.**

- a. Intent. In order to maintain a low to moderate land use intensity pattern, single family detached uses shall develop at a maximum of two (2) dwelling units per acre. However, in the absence of public sewer, all waste treatment must be permitted by the County Health Department, in which case the minimum lot size is 40,000 sq. ft. All other residential and non-residential development shall be allowed a maximum of twenty-four percent (24%) built-upon area. In addition, non-residential uses may occupy ten percent (10%) of the watershed with a seventy percent (70%) built-upon area when approved as a special nonresidential intensity allocation (SNIA). The City Council is authorized to approve SNIAs consistent with the provisions of this ordinance. Projects must minimize built-upon surface area, direct stormwater away from surface waters and incorporate Best Management Practices to minimize water quality impacts. Non-discharging landfills and sludge application sites are allowed.

1. Permitted Uses:

- (a) All uses permitted in the underlying zoning districts where the watershed is located, subject to the modifications below, unless specifically prohibited in (2) Prohibited Uses.
- (b) Agriculture, subject to the provisions of the Food Security Act of 1985 and the Food, Agricultural, Conservation and Trade Act of 1990.
- (c) Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC 11.6101-.0209).

2. Prohibited Uses:

(a) discharging landfills

(b) storage of toxic and hazardous materials unless a spill containment plan approved by the Planning Department is implemented.

3. Density and Built-upon Limits:

(a) Single-Family Residential--development shall not exceed two (2) dwelling units per acre, as defined on a project by project basis. No residential lot shall be less than one-half (1/2) acre, except within an approved cluster development. In the absence of public sewer, however, all waste treatment must be permitted by the County Health Department, in which case the minimum lot size is 40,000 sq. ft.

(b) All Other Residential and Non-Residential--development shall not exceed twenty-four percent (24%) built-upon area on a project by project basis except that up to ten percent (10%) of the balance of the watershed may be developed for non-residential uses to seventy percent (70%) built-upon area on a project by project basis. For the purpose of calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.

**Section 302b. Randleman Lake Watershed - Critical Area - WS-IV-CA.**

a. Intent. In order to maintain a low land use intensity pattern, single-family residential uses are allowed at a minimum of one (1) dwelling unit per two acres. All other residential and non-residential development shall be allowed to a maximum of six percent (6%) built-upon area.

1. Permitted Uses:

(a) Uses permitted in the underlying zoning districts where the watershed is located, subject to the modifications noted below unless prohibited in (2) Prohibited Uses.

(b) Agriculture, subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990.

(c) Silviculture, subject to the provisions if the Forest Practices Guidelines Related to Water Quality (15 NCAC II.6101-.0209).

2. Prohibited Uses:

(a) Landfills or incinerators

(b) Sites for land application of sludge/residuals or petroleum contaminated soils

3. Density and Built-upon Limits:

- (a) Single-Family Residential - development shall not exceed one (1) dwelling unit per two (2) acres on a project basis. No residential lot shall be less than two (2) acres, except within an approved cluster development.
- (b) All other Residential and Non-residential - development shall not exceed six percent (6%) built-upon area on a project by project basis. For the purpose of calculating built-upon area, the total project area shall include total acreage in the tract on which the project is to be developed.

**Section 302c. Randleman Lake Watershed – Protected Area - WS-IV-PA.**

- a. Intent. Single family detached uses shall develop at a maximum of one (1) dwelling unit per acre. Where new development requires a Sedimentation/Erosion Control Plan and exceeds one (1) dwelling unit per acre or 12% built-upon area, engineered stormwater controls shall be used to control runoff from the first inch of rainfall and development shall not exceed 70% built-upon area.

1. Permitted Uses:

- (a) All uses permitted in the underlying zoning districts where the watershed is located, subject to the modifications below, unless specifically prohibited in (2) Prohibited Uses.
- (b) Agriculture, subject to the provisions of the Food Security Act of 1985 and the Food Agricultural Conservation and Trade Act of 1990.
- (c) Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC II.6101-.0209)

2. Prohibited Uses:

- (a) discharging landfills
- (b) storage of toxic and hazardous materials unless a spill containment plan approved by the Planning Department is implemented.

3. Density and Built-upon Limits:

- (a) Single Family Residential - development shall not exceed one (1) dwelling unit per acre, as defined on a project by project basis. No residential lot shall be less than one (1) acre, except within an approved cluster development.
- (b) All Other Residential and Non-residential - development shall not exceed twelve percent (12%) built-upon area on a project by project basis except where new

development requires a Sedimentation/Erosion Control Plan and exceeds one (1) dwelling unit per acre or 12% built-upon area, engineered stormwater controls shall be used to control runoff from the first inch of rainfall and development shall not exceed 70% built-upon area.

For the purpose of calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.

**Section 302d. High Density Development Permit Application.**

- a. A High Density Development Permit shall be required for new development exceeding the requirements of the low density option.
- b. Application for a High Density Development Permit shall be addressed and submitted to the Watershed Review Board through the Watershed Administrator. Application for a High Density Development Permit shall be made on the proper form and shall include the following information:
  1. A completed High Density Development Permit Application signed by the owner of the property. The signature of the consulting engineer or other agent will be accepted on the application only if accompanied by a letter of authorization;
  2. Twelve copies of the development plan within the drainage basin including detailed information concerning built-upon area and specifications of the stormwater control structure.
  3. When required by law, written verification that a soil erosion and sedimentation control plan has been approved by the appropriate state or local agency;
  4. Permit Application Fees.
- c. Prior to taking final action on any application, the Board or the Watershed Administrator may provide an opportunity to public agencies affected by the development proposal to review and make recommendations on the application. However, failure of the agencies to submit their comments and recommendations shall not delay the Board's action within prescribed time limit.
- d. Upon receipt of a completed application, the Watershed Review Board shall review the application at their next scheduled meeting and provide a recommendation of approval or denial to the City Council based on their findings in paragraph (E). The applicant or designated representative thereof shall have the opportunity to speak on behalf of their application.
- e. After a recommendation from the Watershed Review Board the City Council shall issue a High Density Development Permit within sixty-five (65) days of its first consideration upon

finding that the proposal is consistent with the applicable standards set forth in the Watershed Ordinance and the following conditions are met:

1. The use will not endanger the public health or safety if located where proposed and developed according to the plan as submitted and approved;
2. The use minimizes impacts to water quality through the use of best management practices and/or maximum setbacks from perennial waters;
3. The use is vital to the continued growth and economic development of the City of Archdale. The Board and Council shall find a development as vital if one or more of the following are met:
  - (a) the development when completed and fully occupied will increase the tax base of the City of Archdale, or;
  - (b) the development will create new jobs or retain jobs not including construction and development of the use, or;
  - (c) the development is an expansion or affiliate of an existing development located within the watershed and requires a location in close proximity to the existing facility;
4. The use is consistent with the official land use plan for the City of Archdale.

If the Watershed Review Board or City Council finds that any one of the above four conditions are not met, the Board or Council shall deny the application.

- f. In addition to any other requirements provided by this Ordinance, the Board may designate additional permit conditions and requirements to assure that the use will be harmonious with the area in which it is proposed to be located and with the spirit of this Ordinance. All additional conditions shall be entered in the minutes of the meeting, at which the permit is granted, on all plans and on the permit certificate. All conditions so imposed shall run with the land and shall be binding upon the applicant and the applicant's heir, successors, or assigns during the continuation of the permitted use. The City Council is authorized to designate more or less conditions upon a permit that what has been designated by the Board.
- g. The City Council shall issue a written ruling and make copies available at the office of the City Clerk.
- h. If the City Council approves the application based on its findings, such approval shall be indicated on the permit, site plan and the plans and specifications of the stormwater control structure(s). A High Density Development Permit shall be issued after the applicant posts a performance bond or other acceptable security as required in Section 304(B)(1) and executes an Operation and Maintenance Agreement as required in Section 304(C). A copy of the permit and one copy of the plans shall be kept on file at the Watershed Administrator's

office. The original permit and one copy of each set of plans shall be delivered to the applicant either by personal service or mail.

- i. Resubmittal of Request. If a request is denied by the City Council, the applicant may resubmit an application for a High Density Development Permit for the same project no earlier than two (2) years following the date of original submission.
- j. Expiration of Allocation. The High Density Development Permit shall expire if occupancy permits are not obtained for the project within two (2) years of approval by the City Council. If occupancy permits are issued for a portion of the project within the two (2) year period, the High Density Development Permit will be extended for an additional one (1) year period. Applicants may resubmit requests for expired allocations.

### **Section 303 Stormwater Control Structures.**

- a. All stormwater control structures shall be designed by a North Carolina registered professional with qualifications appropriate for the type of system required; these registered professionals are defined as professional engineers, landscape architect, to the extent that the design represents are defined as professional engineers, landscape architect, to the extent that the General Statutes, Chapter 89A allow and land surveyors, to the extent that the design represents incidental drainage within a subdivision, as provided in General Statutes 89 (C)-3(7).
- b. All stormwater controls shall use wet detention as a primary treatment system unless alternative stormwater management measures, as outlined in Section 303(C), are used. Wet detention ponds shall be designed for specific pollutant removal according to modeling techniques approved by the North Carolina Division of Environmental Management. Specific requirements for these systems shall be in accordance with following design criteria:
  1. Wet detention ponds shall be designed to remove 85% of total suspended solids in the permanent pool and storage runoff from a one inch rainfall from the site above the permanent pool;
  2. The designed runoff storage volume shall be above the permanent pool;
  3. The discharge rate from these systems following the one inch rainfall design storm shall be such that the runoff does not draw down to the permanent pool level in less than two (2) days and that the pond is drawn down to the permanent pool level within at least five (5) days;
  4. The mean permanent pool depth shall be a minimum of three (3) feet;
  5. The inlet structure shall be designed to minimize turbulence using baffles or other appropriate design features;

6. Vegetative filters shall be constructed for the overflow and discharge of all stormwater wet detention ponds and shall be at least thirty feet in length. The slope and width of the vegetative filter shall be determined so as to provide a non-erosive velocity of flow-through the filter for a 10-year, 24-hour storm with a 10-year, 1-hour intensity with a slope of five percent or less. Vegetation in the filter shall be natural vegetation, grasses or artificially planted wetland vegetation appropriate for the site characteristics;
- c. Alternative stormwater management systems, consisting of one treatment option or a combination of treatment options, may be used. The design criteria for approval shall be 85 percent average annual removal of Total Suspended Solids. Also, the discharge rate shall meet one of the following criteria;
  1. the discharge rate following the 1-inch design storm shall be such that the runoff draws down to the pre-storm design stage within five days, but not less than two days; or
  2. the post development peak discharge rate shall equal the predevelopment rate for the 1-year, 24-hour storm.
- d. In addition to the vegetative filters required in Section 303 (B)(6), all land areas outside of the pond shall be provided with a ground cover sufficient to restrain erosion within thirty (30) days after any land disturbance. Upon completion of the stormwater control structure, a permanent ground cover shall be established and maintained as part of the maintenance agreement described in Section 305(C).
- e. A description of the area containing the stormwater control structure shall be prepared and filed in consistent with Section 307 (A and B), as a separate deed with the Randolph County Register of Deeds along with any easements necessary for general access to the stormwater control structure. The deed shall include the *stormwater control\_structure*, vegetative filters, all pipes and water control structures, berms, dikes, etc., and sufficient area to perform inspections, maintenance, repairs, and reconstruction.
- f. Qualifying areas of the stormwater control structure may be considered pervious when computing total built-upon area. However, if the structure is used to compute the percentage built-upon area for one site, it shall not be used to compute built-upon area for any other site or area.

#### **Section 304. Posting of Financial Security Required.**

- a. All new stormwater control structures shall be conditioned on the posting of adequate financial assurance for the purpose of maintenance, repairs, or reconstruction necessary for adequate performance of the stormwater control structures.
- b. Financial assurance shall be in the form of the following:
  1. Security Performance Bond or other security. The permit applicant shall obtain either a performance bond from a surety bonding company authorized to do business in North

- Carolina, an irrevocable letter of credit or other instrument readily convertible into cash at face value payable to the City of Archdale or placed in escrow with a financial institution designated as an official depository of the City of Archdale. The bond or other instrument shall be in an amount equal to 1.25 times the total cost of the stormwater control structure, as estimated by the applicant and approved by the Watershed Review Board. The total cost of the stormwater control structure shall include the value of all materials such as piping and other structures; seeding and soil stabilization; design and engineering; and grading, excavation, fill, etc. The cost shall not be prorated as part of a larger project, but rather under the assumption of an independent mobilization.
2. Cash or Equivalent Security Deposited After the Release of the Performance Bond. Consistent with Section 307 (C)(1), the permit applicant shall deposit with the City of Archdale either cash or other instrument approved by the Watershed Review Board that is readily convertible into cash at face value. The cash or security shall be in an amount equal to fifteen percent (15%) of the total cost of the stormwater control structure or the estimated cost of maintaining the stormwater control structure over a ten (10) year period, whichever is greater. The estimated cost of maintaining the stormwater control structure shall be consistent with the approved operation and maintenance plan or manual provided by the developer under Section 305(A). The amount shall be computed by estimating the maintenance cost for twenty-five (25) years and multiplying this amount by to fifths or 0.4.
    - c. Consistent with Section 302, the permit applicant shall enter into the binding Operation and Maintenance Agreement between the Watershed Review Board and all interests in the development. Said Agreement shall require the owning entity to maintain, repair, and if necessary, reconstruct the stormwater control structure in the accordance with the operation management plan or manual provided by the developer. The Operation and Maintenance Agreement shall be filed with the Randolph County Register of Deeds by the Watershed Review Board.
    - d. Default under the performance bond or other security. Upon default of the permit applicant to complete and/or maintain the stormwater control structure as spelled out in the performance bond or other security, the Board may obtain and use all or any portion of the funds necessary to complete the improvements based on an engineering estimate. The board shall return any funds not spent in completing the improvements to the owning entity.
    - e. Default under the cash security. Upon default of the owning entity to maintain, repair and, if necessary, reconstruct the stormwater control structure in accordance with the Operation and Maintenance Agreement, the Board shall obtain and use all or any portion of the cash security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after exhausting all other reasonable remedies seeking the owning entity to comply with the terms and conditions of the Operation and Maintenance Agreement. The Board shall not return any deposited cash funds.

### **Section 305. Maintenance and Upkeep.**

- a. All stormwater control structures shall be maintained by a private owner or home owner's association. The city will have no responsibility in the maintenance and upkeep of any stormwater control structure.
- b. An operation and maintenance plan or manual shall be provided by the developer for each stormwater control structure, indicating what operation and maintenance actions are needed, what specific quantitative criteria will be used for determining when those actions are to be taken and, consistent with the Operation and Maintenance Agreement, who is responsible for those actions. The plan shall clearly indicate the steps that will be taken for restoring a stormwater control structure to design specifications if a failure occurs.
- c. Landscaping and grounds management shall be the responsibility of the owning entity. However, vegetation shall not be established or allowed to mature to the extent that the integrity of the control structure is diminished or threatened, or to the extent of interfering with any easement or access to the stormwater control structure.
- d. Except for general landscaping and grounds management, the owning entity shall notify the Watershed Administrator or his/her designee prior to any repair or reconstruction of the stormwater control structure. All improvements shall be made consistent with the approval plans and specifications of the stormwater control structure and the operation and maintenance plan or manual. After notification by the owning entity, the Watershed Administrator shall inspect the completed improvements and shall inform the owning entity of any required additions, changes, or modifications and of the time period to complete said improvements. The Watershed Administrator may consult with an engineer or landscape architect (to the extent that the General Statutes, Chapter 89A, allow) designated by the Watershed Review Board.
- e. Amendments to the plans and specifications of the stormwater control structure and/or the operation and maintenance plan or manual shall be approved by the Watershed Review Board. Proposed changes shall be prepared by a North Carolina registered professional engineer or landscape architect (to the extent that the General Statutes, Chapter 89A, allow) and submitted to and reviewed by the Watershed Administrator prior by the Watershed Review Board.
  1. If the Watershed Review Board approves the proposed changes, the owning entity of the stormwater control structure shall file sealed copies of the revisions with the Office of the Watershed Administrator.
  2. If the Watershed Review Board disapproves the changes, the proposal may be revised and resubmitted to the Watershed Review Board as a new proposal. If the proposal has not been revised and is essentially the same that already reviewed, it shall be returned to the applicant.
- f. If the Watershed Review Board finds that the operation and maintenance plan or manual is inadequate for any reason, the Board shall notify the owning entity of any required changes and shall prepare and file copies of the revised agreement with the [county] Register of Deeds, the Office of the Watershed Administrator and the owning entity.

### **Section 306. Application and Inspection Fees.**

- a. Processing and inspection fees shall be submitted in the form of a check or money order made payable to the City of Archdale. Applications shall be returned if not accompanied by the required fee.
- b. An application and inspection fee schedule, as approved by the City of Archdale, shall be posted in the Office of the Watershed Administrator.
- c. Inspection fees shall be valid for 60 days. An inspection fee shall be required when improvements are made to the stormwater control structure consistent with Section 305(A)(C), except in the case when a similar fee has been paid within the last 60 days.

### **Section 307. Inspections and Release of the Performance Board.**

- a. A Watershed Protection Occupancy Permit shall not be issued for any building within the permitted development until the Watershed Review Board has approved the stormwater control structure, as provided in Section 307(B).
- b. All stormwater control structures shall be inspected at least once on an annual basis to determine whether the controls are performing as designed and intended. Records of inspection shall be maintained on forms approved or supplied by the North Carolina Division of Environmental Management. Annual inspections shall begin within one year of filing date of the deed for the stormwater control structure.
- c. In the event the Watershed Administrator or his/her designee discovers the need for corrective action or improvements, the Watershed Administrator or his/her designee shall notify the owning entity of the needed improvements and the date by which the corrective action is to be completed. All improvements shall be made consistent with the plans and specifications of the stormwater control structure and the operation maintenance plan or manual. After notification by the owning entity, the Watershed Administrator shall inspect and approve the completed improvements. The Watershed Administrator may consult with an engineer or landscape architect (to the extent that the General Statutes, Chapter 89A, allow) designated by the Watershed Review Board.
- d. Appeals of any order, requirement, decision, or determination made by the Watershed Administrator may be made to and decided by the Watershed Review Board consistent with Section 502.

### **Section 308a. Cluster Development - Uwharrie River (Lake Reece) Watershed.**

Clustering of development is allowed in all Watershed Areas under the following conditions:

- a. Minimum lot sizes are not applicable to single family cluster development projects; however, the total number of lots shall not exceed the number of lots allowed for single-family detached developments in Section 302. Built-upon area or stormwater control requirements of the project shall not exceed that allowed for the critical area or balance of watershed, whichever applies.
- b. All built-upon area shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow.
- c. The remainder of the tract shall remain in a vegetated or natural state. Where the development has an incorporated property owners association, the title of the open space area shall be conveyed to the association for management. Where a property association is not incorporated, a maintenance agreement shall be filed with the property deeds.

### **Section 308b. Cluster Development - Randleman Lake Watershed.**

Overall density of the project meets associated density or stormwater control requirements of Section 302b and c;

Buffers meet the minimum statewide water supply watershed protection requirements and those specified for the Randleman Lake watershed riparian areas in Section 304a.

Built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas.

Areas of concentrated development are located in upland areas and away to the maximum extent practicable, from surface waters and drainageways;

Remainder of tract to remain in vegetated or natural state. The area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement;

Cluster development that meets the applicable low-density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable.

Areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways.

### **Section 309a. Buffer Areas Required - Uwharrie River (Lake Reece) Watershed.**

- a. A minimum one hundred (100) foot vegetative buffer is required for all new development activities that exceed the low density option; otherwise, a minimum fifty (50) foot vegetative buffer for development activities is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined

by local government studies. Desirable artificial stream bank or shoreline stabilization is permitted.

- b. No new development is allowed in the buffer except for water dependent structures and public projects such as road crossings and greenways where no practical alternative exists. These activities should minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of stormwater Best Management Practices.
- c. Septic tank fields shall extend no closer than two hundred (200) feet from reservoirs, measured in the same manner. Lots abutting the reservoir shall measure two hundred (200) feet in width at the building line.

**Section 309b. Buffer Areas Required - Randleman Lake Watershed.**

- a. A minimum fifty (50) foot riparian buffer for all new development activities is required on all sides of surface waters in the Randleman Lake Watershed, such as intermittent streams, perennial streams, lakes, and ponds, as indicated on the most recent versions of either the U.S.G.S 1:24,000 scale (7.5 minute) topographic maps or the Soil Survey maps developed by USDA-Natural Resource Conservation Service, or other site-specific evidence that indicates to the Division of Water Quality the presence of waters not shown on either of these two maps or evidence that no actual stream or waterbody exists.
- b. Maintenance of the riparian areas shall be such that, to the maximum extent possible, sheet flow of surface water is achieved. All riparian protection areas shall be recorded on new or modified plats. No building permits shall be issued and no new development shall take place in violation of this rule.
- c. The following waterbodies and land uses are exempt from the riparian area protection requirements:
  - 1. Ditches and manmade conveyances, other than modified natural streams, which under normal conditions do not receive drainage from any tributary ditches, canals, or streams, unless the ditch or manmade conveyance delivers runoff directly to waters classified in accordance with 15A NCAC 2B .0100;
  - 2. Areas mapped as intermittent streams, perennial streams, lakes, ponds, or estuaries on the most recent versions of USGS 1:24,000 scale (7.5 minute quadrangle) topographic maps or soil survey maps where no perennial waterbody, intermittent waterbody, lake, pond, or estuary actually exists on the ground;
  - 3. Ponds and lakes created for animal watering, irrigation, or other agricultural uses that are not part of a natural drainage way that is classified in accordance with 15A NCAC 2B .0100;
  - 4. Water dependent structures as defined in 15A NCAC 2B .0202, provided they are located, designed, constructed and maintained to provide maximum nutrient removal, to

have the least adverse effects on aquatic life and habitat and to protect water quality;

The following uses where no practical alternative exists. A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters. Also, these structures shall be located, designed, constructed, and maintained to have minimal disturbance, to provide maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical through the use of best management practices:

- a. Road crossings, railroad crossings, bridges, airport facilities, and utility crossings if the conditions of this ordinance are met.
- b. Stormwater management facilities and ponds, and utility construction and maintenance corridors for utilities such as water, sewer or gas, in Zone 2 of the riparian area as long as the conditions of this ordinance are met and they are located at least 30 feet from the top of bank or mean high water line.

A corridor for the construction and maintenance of utility lines, such as water, sewer or gas. (including access roads and stockpiling of materials) running parallel to the stream and located within Zone 2 of the riparian area, as long as no practical alternative exists, and best management practices are installed to minimize runoff and maximize water quality protection to the maximum extent practicable. Permanent, maintained access corridors shall be restricted to the minimum width practicable and shall not exceed 10 feet in width except at manhole locations. A 10 feet by 10 feet perpendicular vehicle turnaround shall be allowed provided they are spaced at least 500 feet apart along the riparian area;

Stream restoration projects, scientific studies, stream gauging, water wells, passive recreation facilities such as boardwalks, trails, pathways, historic preservation and archaeological activities, provided that they are located in Zone 2 and are at least 30 feet from the top of bank or mean high water line and are designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat and to protect water quality to the maximum extent practical through the use of best management practices. Activities that must cross the stream or be located within Zone 1, are allowed as long as all other requirements of this item are met; and

Stream crossings associated with timber harvesting, if performed in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J .0201-.0209)

- c. The protected riparian area shall have two zones as follows:
  1. Zone 1 is intended to be an undisturbed area of vegetation.
    - (a) Location of Zone 1: Zone 1 begins at the top of bank for intermittent streams and perennial streams and extends landward a distance of 30 feet on all sides of the

waterbody, measured horizontally on a line perpendicular to the waterbody. For all other waterbodies, Zone 1 begins at the top of bank or mean high water line and extends landward a distance of 30 feet, measured horizontally on a line perpendicular to the waterbody.

(b) The following practices and activities are allowed in Zone 1:

- (1) Natural regeneration of forest vegetation and planting vegetation to enhance the riparian area if disturbance is minimized, provided that any plantings shall primarily consist of locally native trees and shrubs;
- (2) Selective cutting of individual trees in Zone 1, where forest vegetation as defined in 15A NCAC 1J .0202, as long as the following conditions are met every 100 feet on each side of the stream;
- (3) Of existing trees 12-inches and greater diameter breast height (dbh), a minimum of five trees must remain uncut.
- (4) Trees 12-inches and greater dbh may be harvested based on the following equation: Number of trees harvested = (total number of trees greater than 12-inch dbh - 5)/2;
- (5) No trees less than 12-inch dbh may be harvested unless exceptions provided in this ordinance are met.
- (6) Trees may not be harvested more frequently than every 10 years; and
- (7) No tracked or wheeled equipment are allowed.
- (8) Horticulture or silvicultural practices to maintain the health of individual trees;
- (9) Removal of individual trees which are in danger of causing damage to dwellings, other structures or the stream channel;
- (10) Removal of dead trees and other timber cutting techniques necessary to prevent extensive pest or disease infestation if recommended by the Director, Division of Forest Resources and approved by the Director, Division of Water Quality; and
- (11) Ongoing agricultural operations provided that existing forest vegetation is protected.

(c) The following practices are not allowed in Zone 1:

- (1) Land-disturbing activities and placement of fill and other materials, other than those allowed above;

- (2) New development;
- (3) New on-site sanitary sewage systems that use ground absorption;
- (4) The application of fertilizer; and
- (5) Any activity that threatens the health and function of the vegetation including, but not limited to, application of chemicals in amount exceeding the manufacturers recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.

Zone 2 is intended to provide protection through a vegetated riparian zone that provides for diffusion and infiltration of runoff and filtering of pollutants.

- (a) Location of Zone 2: Zone 2 begins at the outer edge of Zone 1 and extends landward a minimum of 20 feet as measured horizontally on a line perpendicular to the waterbody. The combined minimum width of Zones 1 and 2 shall be 50 feet on all sides of the waterbody.
- (b) The following practices and activities are allowed in Zone 2 in addition to those allowed in Zone 1:
  - (1) Periodic mowing and removal of plant products such as timber, nuts and fruit is allowed provided the intended purpose of the riparian area is not compromised by harvesting, disturbance, or loss of forest or herbaceous ground cover; and
  - (2) Grading and timber harvesting provided that vegetated ground cover be established immediately following completion of the land-disturbing activity.
- (c) The following practices and activities are not allowed in Zone 2:
  - (1) New development;
  - (2) New on-site sanitary sewage systems which use ground adsorption;
  - (3) Any activity that threatens the health and function of the vegetation including, but no limited to, application of chemicals in amounts exceeding the manufacturers recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.

Timber removal and skidding of trees shall be directed away from the water course or waterbody. Skidding shall be done in a manner to prevent the creation of ephemeral channels perpendicular to the water body. Any tree removal must be performed in a manner that does not compromise the intended purpose of the riparian area and is in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J .0201-0209).

Maintenance of sheet flow in Zones 1 and 2 is required in accordance with this item.

- (a) Sheet flow must be maintained to the maximum extent practical through dispersing concentrated flow and re-establishment of vegetation to maintain the effectiveness of the riparian area.
- (b) Concentrated runoff from new ditches or manmade conveyances must be dispersed into sheet flow before the runoff enters Zone 2 of the riparian area. Existing ditches and manmade conveyances are exempt from this requirement; however, care shall be taken to minimize pollutant loading through these existing ditches and manmade conveyances from fertilizer application or erosion.
- (c) Periodic corrective action to restore sheet flow shall be taken by the landowner if necessary to impede the formation of erosion gullies which allow concentrated flow to bypass treatment in the riparian area.
- (d) Periodic maintenance of modified natural streams such as canals, is allowed provided that disturbance is minimized and the structure and function of the riparian area is not compromised. A grassed travelway is allowed on one side of the waterbody when alternative forms of maintenance access are not practical. The width and specifications of the travelway shall be only that needed for equipment access and operation. The travelway shall be located to maximize stream shading.
- (e) Where the standards and management requirements for riparian areas are in conflict with other laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, or other environmental protection areas, the more protective shall apply.
- (f) The existing water supply requirement in Rule 15A NCAC 2B .0216(3)(b) that stipulates a 100 foot vegetated buffer, adjacent to perennial streams, for all new development activities which utilize the high density option, applies to the entire Randleman Lake watershed. The first 50 feet of these riparian areas on either side of these waters must also be protected in accordance with all the requirements of this Rule.

### **Section 310. Rules Governing the Interpretation of Watershed Area Boundaries.**

Where uncertainty exists as to the boundaries of the watershed areas, as shown on the Watershed Map, the following rules shall apply:

- a. Where area boundaries are indicated as approximately following either street, alley, railroad or highway lines or centerlines thereof, such lines shall be construed to be said boundaries.

- b. Where area boundaries are indicated, as approximately following lot lines, such lot lines shall be construed to be said boundaries. However, a surveyed plat prepared by a registered land surveyor may be submitted to the City as evidence that one or more properties along these boundaries do not lie within the watershed area.
- c. Where the watershed area boundaries lie at a scaled distance more than twenty-five (25) feet from any parallel lot line, the location of watershed area boundaries shall be determined by use of the scale appearing on the watershed map.
- d. Where the watershed area boundaries lie at a scaled distance of twenty-five (25) feet or less from any parallel lot line, the location of watershed area boundaries shall be construed to be the lot line.
- e. Where other uncertainty exists, the Planning Director shall interpret the Watershed Map as to location of such boundaries. This decision may be appealed to the Board of Adjustment.

### **Section 311. Application of Regulations.**

- a. No building or land shall hereafter be used and no development shall take place except in conformity with the regulations herein specified for the watershed area in which it is located.
- b. No area required for the purpose of complying with the provisions of this ordinance shall be included in the area required for another building.
- c. Every residential building hereafter erected, moved or structurally altered shall be located on a lot which conforms to the regulations herein specified, except as permitted in Section 312.
- d. If a use or class of use is not specifically indicated as being allowed in a watershed area, such use or class of use is prohibited.

### **Section 312. Existing Development.**

Any existing development as defined in Article 600 may be continued and maintained subject to the provisions provided herein. New structures on property with existing development and expansions to structures classified as existing development must meet the requirements of this ordinance, however, the built-upon area of the existing development is not required to be included in the density calculations.

- a. Vacant Lots. This category consists of vacant lots for which plats or deeds have been recorded in the office of the Register of Deeds of Randolph County. Lots may be used for any of the uses allowed in the watershed area in which it is located, provided the following:
  - 1. Where the lot area is below the minimum specified in this ordinance the owner may apply for a variance that provides for compliance with the buffer requirement to the maximum extent practicable. The Planning Director is authorized to issue a watershed protection permit.

2. Where the buffer standard needs to be modified due to the shape and/or size of a residential or non-residential lot, the owner may apply for a variance in order to obtain a watershed protection permit, provided the buffer requirement is complied with to the maximum extent practicable. The procedures for obtaining a minor or major variance are found in Section 506.
  3. Notwithstanding the foregoing, whenever two or more contiguous residential vacant lots of record are in single ownership at any time after the adoption of this ordinance and such lots individually have less area than the minimum requirements for residential purposes for the watershed area in which such lots are located, such lots shall be combined to create one or more lots that meet the standards of this ordinance, or if this is impossible, reduce to the extent possible the nonconformity of the lots.
- b. Occupied Lots. This category consists of lots, occupied for residential purposes at the time of the adoption of this ordinance. These lots may continue to be used provided that whenever two or more adjoining lots of record, one of which is occupied, are in single ownership at any time after the adoption of this ordinance, and such lots individually or together have less area than the minimum requirements for residential purposes for the watershed area in which they are located, such lots shall be combined to create lots which meet the minimum size requirements or which minimize the degree of nonconformity.
- c. Uses of Land. This category consists of uses existing at the time of adoption of this ordinance where such use of the land is not permitted to be established hereafter in the watershed area in which it is located. Such uses may be continued except as follows:
1. When such use of land has been changed to an allowed use, it shall not thereafter revert to any prohibited use.
  2. Such use of land shall be changed only to an allowed use.
  3. When such use ceases for a period of at least one-year, it shall not be reestablished.
- d. Reconstruction of Buildings or Built-upon Areas. Any existing building or built-upon area not in conformance with the restrictions of this ordinance that has been damaged or destroyed by any means to an extent of more than fifty percent (50%) of its replacement cost or bulk, exclusive of foundations and land value may be repaired and/or reconstructed, except that there are no restrictions on single family residential development, provided:
1. Repair or reconstruction is initiated within twelve (12) months and completed within two (2) years of such damage.
  2. The total amount of space devoted to built-upon area may not be increased unless stormwater control that equals or exceeds the previous development is provided.

**Section 313. Watershed Protection Permit.**

- a. Except where a single family residence is constructed on a lot deeded prior to the effective date of this ordinance, no building or built-upon area shall be erected, moved, enlarged or structurally altered, nor shall any building permit be issued nor shall any change in the use of any building or land be made until a Watershed Protection Permit has been issued by the Planning Department. No Watershed Protection Permit shall be issued except in conformity with the provisions of this ordinance.
- b. Watershed Protection Permit applications shall be filed with the Planning Department. The application shall include a completed application form and supporting documentation deemed necessary by the Planning Director.
- c. Prior to issuance of a Watershed Protection Permit, the Planning Director may consult with qualified personnel for assistance to determine if the application meets the requirements of this ordinance.
- d. A Watershed Protection Permit shall expire if a Building Permit or Watershed Occupancy Permit for such use is not obtained by the applicant within twelve (12) months from the date of issuance.

#### **Section 314. Building Permit Required.**

After receiving a Watershed Protection Permit, a Building Permit shall be obtained from the Randolph County Inspections Department for construction or alteration of any building or structure pursuant to the procedures of the County Inspections Department.

#### **Section 315. Watershed Protection Occupancy Permit.**

- a. The Planning Director shall issue a Watershed Protection Occupancy Permit certifying that all requirements of this ordinance have been met prior to the occupancy or use of a building hereafter erected, altered or moved and/or prior to the change of use of any building or land.
- b. A Watershed Protection Occupancy Permit, either for the whole or part of a building, shall be applied for coincident with the application for a Watershed Protection Permit and shall be issued or denied within ten (10) days after the erection or structural alterations of the building.
- c. When only a change in use of land or existing building occurs, the Planning Director shall issue a Watershed Protection Occupancy Permit certifying that all requirements of this ordinance have been met coincident with the Watershed Protection Permit.
- d. If the Watershed Protection Occupancy permit is denied, the Planning Director shall notify the applicant in writing stating the reasons for denial.
- e. No building or structure that has been erected, moved, or structurally altered may be occupied until the Planning Director has approved and issued a Watershed Protection Occupancy permit.