

15A NCAC 02B .0250 RANDLEMAN LAKE WATER SUPPLY WATERSHED: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

Protection of the pollutant removal and other water quality services provided by riparian buffers throughout the watershed is an important element of the overall Randleman water supply pollutant strategy. The following is the management strategy for maintaining and protecting riparian areas in the Randleman Lake watershed:

- (1) **PURPOSE.** The purposes of this Rule shall be for the local governments listed in this Rule, and in certain cases stated in this Rule the Division, to protect and preserve existing riparian buffers throughout the Randleman Lake watershed as generally described in this Rule, in order to maintain their nutrient removal and stream protection functions. Additionally this Rule will help protect the water supply uses of Randleman Lake and of designated water supplies throughout the Randleman Lake water supply watershed. Local governments with jurisdictions in Randleman Lake watershed shall establish programs to meet or exceed the minimum requirements of this Rule. However, the Division shall assume responsibility for applying the requirements of this Rule to activities listed in Item (3) of this Rule. The requirements of this Rule shall supersede all buffer requirements stated in Rules 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters in the Randleman Lake watershed. Parties subject to this Rule may choose to implement more stringent rules, including the one-hundred foot buffer requirement set out in Sub-item (3)(b)(i) of Rules 15A NCAC 02B .0214 through .0216 for high-density developments.
- (2) **DEFINITIONS.** For the purpose of this Rule, 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 (but not limited to) boardwalks, steps, rails, signage;
 - (b) 'Archaeological Activities' means activities conducted by a Registered Professional Archaeologist (RPA);
 - (c) 'Airport Facilities' means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definition 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. Airport facilities 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;

- (d) '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;
- (e) 'DBH' means diameter at breast height of a tree measured at 4.5 feet above ground surface level;
- (f) Ditch means a man-made, open drainage way in or into which excess surface water or groundwater from land, stormwater runoff, or floodwaters flow either continuously or intermittently;
- (g) 'Ephemeral stream' means a feature that carries 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) 'Forest plantation' means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site;
- (i) 'Greenway / Hiking Trails' means pedestrian trails constructed of pervious and impervious surfaces and related structures including but not limited to boardwalks, steps, rails, and signage, and that generally run parallel to the surface water;
- (j) '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; and, for hardwoods and wetland species, 16 inch DBH or greater or 24 inch or greater stump diameter;
- (k) 'Intermittent stream' means a well-defined channel that contains a continuous flow of 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;
- (l) 'Modified natural stream' means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water;
- (m) '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;
- (n) 'Perennial waterbody' means a natural or man-made watershed that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean. 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);
- (o) '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, rip rap, or gabions, while providing bank stabilization, shall not be considered stream restoration;
- (p) '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. 'Stream' means a body of concentrated flowing water in a natural low area or natural channel on the land surface;

- (q) 'Stump diameter' means the diameter of a tree measured at six inches above the ground surface level;
 - (r) 'Surface waters' means all waters of the state as defined in G.S. 143-212 except underground waters and wetlands;
 - (s) 'Temporary road' means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures such as bridges, culverts or pipes or water dependent structures, or to maintain public traffic during construction; and
 - (t) 'Tree' means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.
- (3) **APPLICABILITY.** This Rule shall apply to all local governments with jurisdictions in the Randleman Lake watershed. Local governments shall develop riparian buffer protection programs for approval by the Division incorporating the minimum standards set out throughout this Rule and shall apply the requirements of this Rule throughout their jurisdictions within the Randleman watershed except where the Division shall exercise jurisdiction. For the following types of buffer activities in the Randleman watershed, wherever local governments are referenced in this Rule, the Division shall implement applicable requirements to the exclusion of local governments:
- (a) Activities conducted under authority of the State;
 - (b) Activities conducted under the authority of the United States;
 - (c) Activities conducted under the authority of multiple jurisdictions;
 - (d) Activities conducted under the authority of local units of government;
 - (e) Forest harvesting activities described in Item 16 of this Rule; and
 - (f) Agricultural activities.
- (4) **REQUIREMENTS.** The following minimum criteria shall be used for identifying regulated buffers. All local governments subject to this Rule shall develop riparian buffer protection programs and ordinances for approval by the Commission, incorporating the minimum standards contained in Rule. This Rule shall apply to 50 foot wide riparian buffers directly adjacent to surface waters in the Randleman watershed (intermittent and perennial streams, lakes, reservoirs, and ponds) excluding wetlands. 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 15A NCAC 02H. 0506.
- (a) Surface waters shall be subject to this Rule if the feature is approximately shown on any of the following references, or if there is other site specific evidence that indicates to the Division or local government the presence of waters not shown on any of these maps:
 - (i) The most recent version of the United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps;
 - (ii) The most recent version of the hardcopy soil survey maps developed by USDA-Natural Resource Conservation Service; or
 - (iii) A map approved by the Geographic Information Coordinating Council and by the Commission. Prior to approving a map under this sub-division the Commission shall provide a 30-day public notice and opportunity for comment;
 - (b) Where the specific origination point of an intermittent or perennial stream is in question, parties subject to this Rule shall use the Division publication, *Identification Methods for the Origins of Intermittent and Perennial Streams, v 3.1 February 28, 2005* available at: <http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations> to establish that point;
 - (c) Local governments may develop stream network maps for the watershed based on maps referenced in Sub-Item (4)(a) of this Rule or criteria identified in Sub-Item (4)(b) and of this Rule. These maps shall be submitted to the Director for review to establish that proper methods were used by any local government wishing to use such maps for implementation of riparian area protection. The local map must be at least as accurate as the map identified in Sub-Items (4)(a)(i) and (4)(a)(ii) and must use the stream identification manual as referenced in Item (4)(b) of this Rule. Riparian areas shall be protected and maintained in accordance

with this Rule on all sides of surface waters in the Randleman Lake watershed as delineated on these approved stream network maps;

- (d) Personnel from delegated local governments that are assigned to perform stream determinations, shall successfully complete the Division's Surface Water Identification Training and Certification Class within three years of the effective revision date of this Rule. A delegated local government shall retain personnel on staff who have successfully completed the Division's class at all times with the exception of staff vacancies and class scheduling problems. At any time that a local government does not have a certified individual retained on staff they shall notify the Division and indicate a proposed schedule to secure a certified staff member;
 - (e) All local governments that have land use authority within the Randleman Lake water supply watershed shall adopt and enforce this Rule through local water supply and other local ordinances. Ordinances shall require that all riparian protection areas are recorded on new or modified plats. No new clearing, grading, or development shall take place and no new building permits shall be issued in violation of this Rule; and
 - (f) Parties subject to this Rule shall abide by all State rules and laws regarding waters of the state including Rules 15A NCAC 02H .0500, 15A NCAC 02H .1300, and Sections 401 and 404 of the Federal Clean Water Act.
- (5) **EXEMPTION REQUIREMENTS TO WHEN AN ON-SITE DETERMINATION SHOWS THAT SURFACE WATERS ARE NOT PRESENT.** When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the delegated local authority. Upon request, the delegated local authority shall make onsite determinations. Local governments may also accept the results of site assessments made by other parties who have successfully completed the Division's Surface Water Identification Training Certification course and are sanctioned by the Division to make such determinations. Any disputes over on-site determinations shall be referred to the local Board of Adjustment or other local appeals process in writing. For projects proposed for state and federal lands, any disputes shall be referred to the Director 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 this Rule if an on-site determination shows that they fall into one of the following categories:
- (a) Ditches and manmade conveyances, to include manmade stormwater conveyances, other than modified natural streams, unless the ditch or manmade conveyance delivers untreated stormwater runoff from an adjacent source directly to an intermittent or perennial stream;
 - (b) Areas mapped as intermittent streams, perennial streams, lakes, ponds, or estuaries on the most recent versions of United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps, hard-copy soil survey maps or other EMC approved stream maps where no perennial waterbody, intermittent waterbody, lake, pond or estuary actually exists on the ground;
 - (c) Ephemeral streams; and
 - (d) 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 02B .0100. Ponds are part of a natural drainage way when they are hydrologically connected (i.e. the pond is fed by an intermittent or perennial stream) or when they have a direct discharge point to an intermittent or perennial stream.
- (6) **EXEMPTION TO REQUIREMENTS WHEN EXISTING USES ARE PRESENT AND ONGOING.** This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:
- (a) A use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of the local ordinance or local ordinances enforcing this Rule and has continued to exist since that time. For state and federal entities, a use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of this Rule and has continued to exist since that time. Existing uses shall include, but not limited to, 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 that contains the footprint of the existing use is exempt from this Rule. 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 the local ordinance or local ordinances enforcing this Rule, and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained;

- (b) A use shall be considered existing if projects or proposed development are determined by the local government, or the Director for the cases involving state or federal entities, to meet at least one of the following criteria:
 - (i) Project requires a 401 Certification/404 permit and these were issued prior to the effective date of the local program enforcing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;
 - (ii) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and had received all required state permits and certifications prior to the effective date of the local program implementing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;
 - (iii) Projects that are being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor and that have reached agreement with DENR on avoidance and minimization by the effective date of the local program enforcing this Rule, and prior to the effective date of this Rule for state and federal entities; or
 - (iv) Projects that are not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor if a Finding of No Significant Impact has been issued for the project and the project has the written approval of the local government prior to the effective date of the local program enforcing this Rule, or the written approval of the Division prior to the effective date of this Rule for state and federal entities; and
- (c) This Rule shall apply at the time an existing use is changed to another use. Change of use shall include, but not limited to the initiation of any activity not defined as existing and ongoing in either Sub-Item (6)(a) or (6)(b) of this Rule.

(7) **ZONES OF THE RIPARIAN BUFFER.** The protected riparian buffer shall have two zones as follows:

- (a) Zone 1 shall consist of a vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. The location of Zone 1 shall be as follows:
 - (i) For intermittent and perennial streams, Zone 1 shall begin at the most landward limit of the top of the bank or the rooted herbaceous vegetation 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 edge of the top of the bank; and
 - (ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone 1 shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the surface water or rooted herbaceous vegetation; and
- (b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to

the surface water. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.

- (8) **DIFFUSE FLOW REQUIREMENT.** Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.
- (a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone 2 of the riparian buffer;
 - (b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies; and
 - (c) No new stormwater conveyances are allowed through the buffers except for those specified in Item (9) of this Rule addressing stormwater management ponds drainage ditches, roadside ditches, and stormwater conveyances.
- (9) **TABLE OF USES.** The following chart sets out the uses and their designation under this Rule as exempt, potentially allowable, or potentially allowable with mitigation. All uses not designated as exempt, potentially allowable, or potentially allowable with mitigation are considered prohibited and may not proceed within the riparian buffer unless a variance is granted pursuant to Item (12) of this Rule. The requirements for each category are given in Item (10) of this Rule.

Use	Exempt	Potentially Allowable	Potentially 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"> • 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 Rule and no impervious surface is added to the riparian buffer • 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 Rule or impervious surface is added to the riparian buffer 	X	X	
<p>Airport facilities:</p> <ul style="list-style-type: none"> • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer • Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)¹ 		X X	X
<p>Archaeological activities:</p> <ul style="list-style-type: none"> • In Zones 1 and 2 and are designed, constructed and maintained to provide the maximum sediment 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. 	X		
Bridges		X	
Canoe access provided that installation and use does not result in removal of trees as defined in the Rule and no impervious surface is added to the buffer.	X		
<p>Dam maintenance activities:</p> <ul style="list-style-type: none"> • Dam maintenance activities that do not cause 	X		

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
additional buffer disturbance beyond the footprint of the existing dam or those covered under a U.S. Army Corps of Engineers Nationwide Permit <ul style="list-style-type: none"> • Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under a U.S. Army Corps of Engineers Nationwide Permit 		X	
Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers: <ul style="list-style-type: none"> • 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 • 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 • New or altered drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • 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 	X	X X	X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the new channel.	X		
Driveway crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> • 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 • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer 	X	X X	X
Driveway impacts other than crossing of a stream or other surface waters subject to this Rule			X

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
Fences: <ul style="list-style-type: none"> • Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Rule 	X	X	
Forest harvesting - see Item (16) of this Rule			
Fertilizer Application: One-time fertilizer application to establish vegetation	X		
Grading and revegetation in Zone 2 provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are revegetated with native vegetation	X		
Greenway / hiking trails: 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.		X	
Historic preservation: 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	X		
Maintenance access of modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical. The width and specifications of the travel way shall be only that needed for equipment access and operation. The travel way shall be located to maximize stream shading.		X	
Mining activities: <ul style="list-style-type: none"> • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (7) and (8) of this Rule are established adjacent to the relocated channels • Mining activities that are not covered by the Mining Act or where new riparian buffers that meet the requirements or Items (7) and (8) of this Rule are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit 	X	X	X
Playground equipment: <ul style="list-style-type: none"> • Playground equipment on single family lots provided that installation and use does not result in removal of vegetation • Playground equipment installed on lands other than 	X		

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
single-family lots or that requires removal of vegetation		X	
Ponds in natural drainage ways, excluding dry ponds: <ul style="list-style-type: none"> • New ponds provided that a riparian buffer that meets the requirements of Items (7) & (8) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (7) & (8) of this Rule is NOT established adjacent to the pond 		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 Rule.			X
Railroad crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> • Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer • Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer 	X	X	X
Recreational and accessory structures: <ul style="list-style-type: none"> • Total footprint of gazebos and sheds in Zone 2, provided they are not prohibited under local water supply ordinance less than or equal to 150 square feet per lot • Total footprint gazebos and sheds in Zone 2, provided they are not prohibited under local water supply ordinance of more than 150 square feet per lot • Wooden-slatted decks (and associated steps) that are at least 8 feet in height and vegetation is not removed from Zone 1 for the installation and that it meets the requirements of Items (7) and (8) of this Rule • Wooden-slatted decks (and associated steps) that are not at least 8 feet in height or vegetation is removed from Zone 1 for the installation and that it meets the requirements of Items (7) and (8) of this Rule 		X	X
Removal of previous fill or debris provided that diffuse flow is maintained and vegetation is restored	X		
Road crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet 	X	X	X

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
or one-third of an acre of riparian buffer			
Road impacts other than crossings of streams and other surface waters subject to this Rule			X
Road relocation of existing private access roads associated with public road projects where necessary for public safety: <ul style="list-style-type: none"> • Less than or equal to 2,500 square feet of buffer impact • Greater than 2,500 square feet of buffer impact 		X	X
Stormwater BMPs: <ul style="list-style-type: none"> • Wet detention, bioretention, and constructed wetlands in Zone 2 if diffuse flow of discharge is provided into Zone 1 • Wet detention, bioretention, and constructed wetlands in Zone 1 		X	X
Scientific studies and stream gauging: <ul style="list-style-type: none"> • In Zones 1 and 2 if they are designed, constructed and maintained to protect water quality to the maximum extent practical. 	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 the tree planting may occur during the dormant season. A one time application of fertilizer may be utilized to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Item (9) of Rule 15A NCAC 02B .0252: <ul style="list-style-type: none"> • Less than or equal to 2,500 square feet of buffer disturbance • Greater than 2,500 square feet of buffer disturbance • Associated with culvert installation, bridge construction or replacement 	X	X X	
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 Item (9) of Rule 15A NCAC 02B .0252: <ul style="list-style-type: none"> • In Zone 2 only provided ground cover is established within the timeframes required by the Sedimentation and Erosion Control Act and that the vegetation in Zone 1 is not compromised and that discharge is 	X		

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
<p>released as diffuse flow in accordance with Item (8) of this Rule</p> <ul style="list-style-type: none"> • In Zones 1 and 2 to control impacts associated with uses approved by the local government 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 • In-stream temporary erosion and sediment control measures for work within a stream channel that is authorized under Section 401 and 404 of the Federal Water Pollution Control Act • In-stream temporary erosion and sediment control measures for authorized work within a stream channel 	X	X	
<p>Utility- Non-electric utility lines:</p> <ul style="list-style-type: none"> • Impacts other than perpendicular crossings in Zone 2 only^{4,5} • Impacts other than perpendicular crossings in Zone 1 only^{4,5} 		X	X
<p>Utility-Non-electric utility line perpendicular crossings of streams and other surface waters subject to this Rule^{4,5}:</p> <ul style="list-style-type: none"> • Perpendicular crossings that 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 • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that 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 • Perpendicular crossings that 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 • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer 	X	X	X
<p>Utility-Overhead electric utility lines:</p> <ul style="list-style-type: none"> • Impacts other than perpendicular crossings in Zone 2 only^{4,5} • Impacts other than perpendicular crossings in Zone 1^{2,3,4,5} 		X	X
<p>Utility-Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule^{2,3,4,5}:</p> <ul style="list-style-type: none"> • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer • Perpendicular crossings that disturb greater than 150 	X	X	

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
linear feet of riparian buffer			
Utility-Underground electric utility lines: <ul style="list-style-type: none"> • Impacts other than perpendicular crossings in Zone 2 only² • Impacts other than perpendicular crossings in Zone 1^{1,4} 	X X		
Utility-Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: <ul style="list-style-type: none"> • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer^{3,4,5} • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer^{3,4,5} 	X	X	
Vegetation management: <ul style="list-style-type: none"> • Emergency fire control measures provided that topography is restored • Periodic mowing and harvesting of plant products in Zone 2 only • Planting vegetation to enhance the riparian buffer • Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised • Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life • Removal of individual trees that are dead, diseased or damaged. • Removal of poison ivy • Removal of understory nuisance vegetation as defined in: Smith, Cheri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	X X X X X X X X		
Vehicle access to water dependent structures <ul style="list-style-type: none"> • 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 a minimum practicable width not exceeding ten feet 		X	
Water dependent structures as defined in 15A NCAC 02B .0202		X	
Water supply reservoirs: <ul style="list-style-type: none"> • New reservoirs provided that a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is not established adjacent to the reservoir 		X	X
Water wells <ul style="list-style-type: none"> • Single family water wells 	X		

Use	Exempt	Potentially Allowable	Potentially Allowable with Mitigation
• All water wells other than single family water wells		X	
Wetland stream and buffer restoration			
• Wetland, stream and buffer restoration that requires DWQ approval for the use of a 401 Water Quality Certification	X		
• Wetland, stream and buffer restoration that does NOT require DWQ approval for the use of a 401 Water Quality Certification		X	
Wildlife passage structures		X	

¹ Provided that:

- Heavy equipment is not used in Zone 1
- Vegetation is not compromised in the portions of Zone 1 and Zone 2 that are not impacted
- Trees that are cut down are removed by chain
- No permanent felling of trees occurs in the protected buffers or in the streams
- Stump removal is performed only by grinding
- At the completion of the project the disturbed area is stabilized with native vegetation
- Zones 1 & 2 meet the requirements of (7) and (8) of this Rule.

² Provided that, in Zone 1, 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 local government, or the Director for the cases involving activities listed in Item (3) of this Rule.

- 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.

³ Provided that poles or towers shall not be installed within 10 feet of a water body unless the local government or the Director for the cases involving activities listed in Item (3) of this Rule completes a no practical alternative evaluation as defined in Item (11) of this Rule.

⁴ Provided that, in Zone 1, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the local government or the Director for the cases involving activities listed in Item (3) of this Rule, as defined in Item (11) of this Rule.

- 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.
- 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.

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

- (10) **REQUIREMENTS FOR CATEGORIES OF USES.** Uses designated as exempt, potentially allowable, and potentially allowable with mitigation in Item (9) of this Rule shall have the following requirements:
- (a) **EXEMPT.** Uses designated as exempt are allowed within the riparian buffer. 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. In addition, exempt uses shall meet requirements listed in Item (9) of this Rule for the specific use;
 - (b) **POTENTIALLY ALLOWABLE.** Uses designated as potentially allowable require a written buffer authorization from the local government, or the Director for the cases involving activities listed in Item (3) of this Rule for impacts within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule;
 - (c) **POTENTIALLY ALLOWABLE WITH MITIGATION.** Uses designated as potentially allowable with mitigation require written authorization from the local government, or the Director for the cases involving activities listed in Item (3) of this Rule for impacts within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (15) of this Rule; and
 - (d) **PROHIBITED.** Uses that are not designated in Item (9) of this Rule are considered prohibited in the riparian buffers.
- (11) **DETERMINATION OF "NO PRACTICAL ALTERNATIVES."** 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 local government or the Director for the cases involving activities listed in Item (3) of this Rule. The applicant shall certify that the criteria identified in Sub-Item (a) of this Item are met. The local government, or the Director for the cases involving activities listed in Item (3) of this Rule, shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:
- (a) For any request for an Authorization Certificate, the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, shall review the entire project and make a finding of fact as to whether the following requirements have been met in support of a "no practical alternatives" determination:
 - (i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality;
 - (ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality; and
 - (iii) Best management practices shall be used if required to minimize disturbance, preserve aquatic life and habitat, and protect water quality;
 - (b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (a) of this Item and the local ordinance or ordinances enforcing this Rule by the local government, or the Director for the cases involving activities listed in Item (3) of this Rule. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." An Authorization Certificate shall be issued to the applicant, unless:
 - (i) The applicant agrees, in writing, to a longer period; and
 - (ii) Applicant fails to furnish requested information necessary to the local government's decision or the Director's decision for the cases involving activities listed in Item (3) of this Rule;
 - (c) The local government, or the Director for the cases involving activities listed in Item (3) of this Rule, may attach conditions to the Authorization Certificate that support the purpose,

spirit and intent of the riparian buffer protection program. Complete submissions shall include the following:

- (i) The name, address and phone number of the applicant;
 - (ii) The nature of the activity to be conducted by the applicant;
 - (iii) The location of the activity, including the jurisdiction;
 - (iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;
 - (v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and
 - (vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity: and
- (d) Any disputes over determinations regarding Authorization Certificates shall be referred to the local government's appeals process for a decision, or to the Director for determinations involving lands of activities listed in Item (3) of this Rule. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.
- (12) **VARIANCES.** Persons who wish to undertake prohibited uses may pursue a variance. The local government may grant only minor variances. For major variances, local governments shall prepare preliminary findings and submit them to the Commission for approval. The variance request procedure shall be as follows:
- (a) There are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with all of the following:
 - (i) If the applicant complies with the provisions of this Rule, he or she can secure no reasonable return from, nor make reasonable use of, his or 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 local government, or the Director for the cases involving activities listed in Item (3) of this Rule, shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible;
 - (ii) The hardship results from application of this Rule 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, and 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; and
 - (iv) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.
 - (b) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and
 - (c) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.
- (13) **MINOR VARIANCES.** A minor variance request pertains to activities that are proposed to impact only Zone 2 or any portion of Zone 2 of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (12)(a) of this Rule by the local government pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The local government 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 local government shall be made through the local government's appeals process, or to the Director for determinations involving activities listed in Item (3) of this Rule. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

- (14) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 of the riparian buffer. If the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, has determined that a major variance request meets the requirements in Sub-Item (12)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission for approval. Within 90 days after receipt by the local government, or the Director for the cases involving activities listed in Item (3) of this Rule, the Commission shall review preliminary findings on major variance requests. The Commission may choose to approve, approve with conditions, or deny the major variance.
- (15) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.
- (a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (11) of this Rule; and
- (b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0252.
- (16) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices:
- (a) The following measures shall apply in the entire riparian buffer:
- (i) Logging decks and sawmill sites shall not be placed in the riparian buffer;
- (ii) Access roads and skid trails shall be prohibited except for temporary and permanent stream crossings established in accordance with 15A NCAC 01I .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed;
- (iii) Timber felling shall be directed away from the stream or water body;
- (iv) Skidding shall be directed away from the stream or water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts;
- (v) Individual trees may be treated to maintain or improve their health, form or vigor;
- (vi) Harvesting of dead or infected trees or other timber cutting techniques necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site pursuant to 15A NCAC 01I .0100-.0209. The Division of Forest Resources must notify the local government of all approvals;
- (vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed;
- (viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species;
- (ix) High-intensity prescribed burns shall not be allowed;
- (x) Application of fertilizer shall not be allowed except as a one-time use that is necessary for permanent stabilization; and
- (xi) Broadcast application of fertilizer or herbicides to the adjacent forest stand shall be conducted so that the chemicals are not applied directly to or allowed to drift into the riparian buffer;
- (b) In Zone 1, forest vegetation shall be protected and maintained. Selective harvest as provided for below is allowed on forest lands that have a deferment for use value under forestry in accordance with G.S. 105-277.2 through 277.6 or on forest lands that have a forest management plan prepared or approved by a registered professional forester. Copies of either the approval of the deferment for use value under forestry or the forest management plan shall be produced upon request. For such forest lands, selective harvest is allowed in accordance with the following:
- (i) Tracked or wheeled vehicles are permitted for the purpose of selective timber harvesting where there is no other practical alternative for removal of individual trees provided activities comply with forest practices guidelines for water quality as defined in Rule 15A NCAC 01I .0101 through .0209, and provided no equipment shall operate within the first 10 feet immediately adjacent to the stream except at

stream crossings designed, constructed and maintained in accordance with Rule 15A NCAC 01I .0203;

(ii) Soil disturbing site preparation activities are not allowed; and

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation: and

(c) In addition to the requirements of (b) in this Item, the following provisions for selective harvesting shall be met:

(i) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut unless listed as an exempt activity under Vegetation Management in the Table of Uses (9) of this Rule.

(ii) In the outer 20 feet of Zone 1, a maximum of 50 percent of the trees greater than five inches DBH may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations where the reentry time shall be no more frequent than every five years. In either case, the trees remaining after harvest shall be as evenly spaced as possible; and

(iii) In Zone 2, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 01I .0100 through .0209 as enforced by the Division of Forest Resources.

(17) **RULE IMPLEMENTATION.** This Rule shall be implemented as follows:

(a) For activities listed in Item (3) of this Rule, the Division shall implement the requirements of this Rule as of its effective date;

(b) Within six months of the effective revision date of this Rule, local governments shall review, revise as necessary, and submit a local program including all necessary ordinances to the Division for review. The local program shall detail local government buffer program implementation including but not limited to such factors as a method for resolution of disputes involving Authorization Certificate or variance determinations, a plan for record keeping, and a plan for enforcement. Local governments shall use the Division's publication, *Identification Methods for the Origins of Intermittent and Perennial Streams, v 3.1 February 28, 2005* available at <http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations> to establish the existence of streams;

(c) Within six months of the Division approval of the revised local ordinance, the local government shall implement their revised buffer program;

(d) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Item (4) of this Rule;

(e) The Division shall regularly audit local programs to ensure rule implementation; and

(f) If a local government fails to adopt or adequately implement its program as called for in this Rule, the Division may take appropriate enforcement action as authorized by statute, and may choose to assume responsibility for implementing that program until such time as it determines that the local government is prepared to comply with its responsibilities.

(18) 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 restrictive shall apply.

(19) The existing water supply requirement in Rule .0216(3)(b) of this Section 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.

(20) **OTHER LAWS, REGULATIONS AND PERMITS.** In all cases, compliance with this Rule does not preclude the requirement to comply with all other federal, state and local regulations and laws.

*History Note: Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);
Eff. April 1, 1999;
Amended Eff. June 1, 2010.*