15A NCAC 02B .0290 PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS: PURPOSE, APPLICABILITY, JURISDICTION AND EXEMPTIONS

(1) PURPOSE. The purpose of Rules, 15A NCAC 02B .0290 through .0294 shall be to maintain and protect existing riparian buffers in the river basins or watersheds listed in Sub-Item (2)(a) of this rule. The requirements of these rules 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 listed in Sub-Item (2)(c) of this rule. Local governments subject to this rule may choose to implement more stringent requirements, including requiring additional buffer width.

(2) APPLICABILITY. This rule applies to all landowners and other persons including local governments, state and federal entities conducting activities within the riparian buffers as described in Item (3) of this rule and in the river basins or watersheds listed below.

(a) This rule is applicable to the following river basins or watersheds:

(i) Neuse River Basin;

(ii) Tar-Pamlico River Basin;

(iii) Randleman Lake watershed; and

(iv) Jordan Lake watershed as generally described in Rule 15A NCAC 02B .0262.

(b) The Division shall exercise jurisdiction for the following types of buffer activities in the listed river basins or watersheds. The Division shall implement applicable requirements ~~to the exclusion~~ in lieu of local governments for:

(i) Activities conducted under the authority of the State;

(ii) Activities conducted under the authority of the United States;

(iii) Activities conducted under the authority of multiple jurisdictions;

(iv) Activities conducted under the authority of local units of government;

(v) Forest harvesting activities described in 15A NCAC 02B .0293;

(vi) Agricultural activities;

(vii) Activities conducted in a location where there is no local government program implementing NPDES stormwater requirements, Water Supply Watershed requirements, or a voluntary local stormwater or buffer initiative at the time of the activity;

(viii) Activities conducted where there is no local government that has been delegated to implement these rules.

(c) Local governments in the following river basins or watersheds listed below shall develop riparian buffer protection programs for approval by the Commission, incorporating the minimum standards set out throughout this rule and shall apply the requirements of this rule throughout their jurisdictions within the listed river basins or watersheds except where the Division shall exercise jurisdiction as described in Sub-Item (2)(b) of this rule;

(i) Randleman Lake watershed; and

(ii) Jordan Lake watershed.

(3) BUFFERS PROTECTED. The following minimum criteria shall be used for identifying regulated buffers:

(a) This rule shall apply to activities conducted within 50-foot wide riparian buffers directly adjacent to surface waters in the area of applicability (intermittent streams, perennial streams, lakes, reservoirs and ponds), excluding wetlands. This rule shall also apply to activities outside these same riparian buffers that cause hydrologic impacts to those buffers in violation of the diffuse flow requirement that impede the formation of erosion gullies and ensuring stable permanent vegetation as described in Item (2) of Rule 15A NCAC 02B .0292;

(b) Wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506;

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(c) A surface water shall be subject to this rule if the feature is approximately shown on any of the following references: ~~and shall not be subject if it does not on any of these references:~~

(i) The most recent version of the published manuscript of the soil survey map that shows stream layers prepared by the Natural Resources Conservation Service of the United States Department of Agriculture;

(ii) The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS);

(iii) Other maps approved by the Geographic Information Coordinating Council and by the Commission as more accurate than those identified in Sub-Item (3)(c)(i) and (3)(c)(ii) of this rule. Prior to approving a map, the Commission shall provide a 30-day public notice and opportunity for comment; or

(iv) Additionally, for the Randleman Reservoir, if there is site specific evidence other than Sub-Items (i) through (iii) that indicates to the Authority the presence of waters, those waters shall be subject to this rule.

(d) Upon the request of the Division, another party or the local government the Authority shall make an on-site determination where the specific origination point of a stream regulated under this Item is in question. An Authority representative who has successfully completed the Division's *Surface Water Identification Training Certification* course, its successor, or other equivalent training curriculum approved by the Division, shall establish that point using the latest version of the Division publication, *Methodology for Identification of Intermittent and Perennial Streams and their Origins* available at http://portal.ncdenr.org/web/wq/swp/ws/401/waterresources/streamdeterminations or from the Division of Water Quality, 401/Wetlands Unit, 1650 Mail Service Center, Raleigh, NC, 27699-1650. ~~A local government may accept the results of a site assessment made by another party who meets these criteria.~~ This on-site determination shall expire five years from the date of determination. Any disputes over on-site determinations made according to this sub-item shall be referred to the Director in writing within 60 days of written notification from the Authority. The Director's determination is subject to review as provided in Articles 3 and 4 of G.S. 150B;

(e) Riparian buffers protected by this rule shall be measured pursuant to Item (1) of Rule 15A NCAC 02B .0292;

(f) Parties subject to this rule shall abide by all State rules and laws regarding waters of the state including but not limited to Rules 15A NCAC 02H .0500, 15A NCAC 02H .1300, and Sections 401 and 404 of the Federal Water Pollution Control Act;

(g) A riparian buffer may be exempt from this rule as described in Item (4) or (5) of this rule;

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

(4) EXEMPTION BASED ON ON-SITE DETERMINATION. Surface waters that appear on the maps as described in Sub-Item (3)(c) shall not be subject to this rule if an on-site determination reveals any of the following cases:

(a) Man-made ponds and lakes that are not part of a natural drainage way that is classified in accordance with 15A NCAC 02B .0100, including ponds and lakes created for animal watering, irrigation, or other agricultural uses. A pond or lake is part of a natural drainage way when it is fed by an intermittent or perennial stream or when it has a direct discharge point to an intermittent or perennial stream;

(b) Ephemeral streams;

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(c) The absence on the ground of a corresponding intermittent or perennial stream, lake, reservoir, or pond;

(d) Ditches or other man-made water conveyances, other than modified natural streams unless utilized ~~constructed~~ for navigation or boat access. For the Randleman Reservoir, a ditch or man-made water conveyance is not exempt if the ditch or man-made conveyance delivers untreated stormwater runoff from an adjacent source directly to an intermittent or perennial stream.

(5) EXEMPTION 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. However, this rule shall apply at the time an existing, ongoing use is changed to another use. Change of use shall involve the initiation of any activity that does not meet the following criteria for existing, ongoing activity:

(a) It was present within the riparian buffer as of the effective dates listed below and has continued to exist since that time:

(i) July 22, 1997 for the Neuse River Basin;

(ii) January 1, 2000 for the Tar-Pamlico River Basin;

(iii) April 1, 1999 for Randleman Watershed for any Division administered activities listed in Sub-Item (2)(b) of this rule or the effective date of local government administered activities as described in Sub-Item (2)(c) of this rule;

(iv) August 11, 2009 for the Jordan Watershed for any Division administered activities listed in Sub-Item (2)(b) of this rule or the effective date of local government administered activities as described in Sub-Item (2)(c) of this rule.

(b) Existing uses shall include agriculture, ~~silvicultural operations,~~ buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems, any of which involve either:

(i) Specific, periodic management of vegetation; or

(ii) Displacement of vegetation by structures or regular activity.

(c) Silvicultural use shall be deemed existing and ongoing if both of the following conditions are met:

(i) The land in question was being managed under a forest management plan written and/or approved by a registered forester or was under present use value tax treatment as timberlands prior to enactment of the existing buffer rule; and

(ii) The land in question is currently in forest use and being managed under a forest management plan written and/or approved by a registered forester or is under present use value tax treatment as timberlands.

If both of these conditions are not met, forestland is subject to the provisions of 15A NCAC 02B .0293 related to forest harvesting.

(d) Only the portion of the riparian buffer occupied by the footprint of the existing use is exempt from this rule;

(e) Change of ownership through purchase or inheritance is not a change of use;

(f) 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 dates listed in Sub-Item (5)(a) of this rule, and existing diffuse flow is maintained;

(g) Projects or proposed development that are determined by the Authority 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 Sub-Item (2)(b) of this rule;

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(ii) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities and those projects either retain valid permits or 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 Sub-Item (2)(b) 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 Federal Highway Administration's Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Title 23 US Code, 2005) or ~~its~~ their immediate successors 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 Federal Highway Administration's Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Title 23 US Code, 2005) or ~~its~~ their immediate successors if a Finding of No Significant Impact has been issued for the project and the project has the written approval of the local government no more than five (5) years prior to the effective date of the local program enforcing this rule, or the written approval of the Division no more than five (5) years prior to the effective date of this rule for state and federal entities.

(6) REQUIREMENTS SPECIFIC TO LOCAL GOVERNMENTS WITH STORMWATER PROGRAMS FOR NITROGEN CONTROL IN THE NEUSE AND TAR-PAMLICO RIVER BASINS. Local governments that are required to have local stormwater programs pursuant to 15A NCAC 02B .0235 and .0258 shall have ~~two~~ three options for ensuring protection of riparian buffers on new developments within their jurisdictions as follows.

(a) Obtain authority to implement a local riparian buffer protection program pursuant to 15A NCAC 02B .0241 and .0261;

(b) Refrain from issuing local approvals for new development projects unless the person requesting the approval does not propose to impact the riparian buffer of a surface water that appears on maps as defined in Sub-Item (3)(c)(i) through (3)(c)(iii) of this rule; or

(c) The person requesting the approval proposes to impact the riparian buffer of a surface water that appears on the maps described in Sub-Item (6)(b)(i) of this rule and either:

(i) Has received an on-site determination from the Division pursuant to Item (4) of this rule that surface waters are not present;

(ii) Has received an Authorization Certificate from the Division pursuant to Item (5) of Rule 15A NCAC 02B .0292 for uses designated as Potentially Allowable under this rule;

(iii) Has received an Authorization Certificate from the Division pursuant to Item (5) of Rule 15A NCAC 02B .0292 and obtained the Division's approval on a mitigation plan pursuant to Item (7) of Rule 15A NCAC 02B .0292 for uses designated as Potentially Allowable with Mitigation under Rule 15A NCAC 2B .0292; or

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(iv) Has received a variance from the Commission pursuant to Item (6) of Rule 15A NCAC 02B .0292.

(7) EXISTING WATER SUPPLY REQUIREMENT. The existing water supply requirement in Rule 02B .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.

(8) ENFORCEMENT. Failure to meet requirements of Rules .0291 through .0294 of this Section may result in imposition of enforcement measures as authorized by G. S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259; S.B 824-2003.
Eff.

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15A NCAC 02B .0291 PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS: DEFINITIONS

For the purpose of Rules 15A NCAC 02B .0290, .0292, .0293, and .0294, these terms shall be defined as follows:

(1) "Airport Facilities" means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definitions or uses of the words or phrases "air navigation facility," "airport," or "airport protection privileges" under G.S. 63-1; the definition of "aeronautical facilities" in G.S. 63-79(1); the phrase "airport facilities" as used in G.S. 159-48(b)(1); the phrase "aeronautical facilities" as defined in G.S. 159-81 and G.S. 159-97; and the phrase "airport facilities and improvements" as used in Article V, Section 13, of the North Carolina Constitution, which shall include, without limitation, any and all of the following: airports, airport maintenance facilities, clear zones, drainage ditches, fields, hangars, landing lighting, airport and airport-related offices, parking facilities, related navigational and signal systems, runways, stormwater outfalls, terminals, terminal shops, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights-of-way; restricted landing areas; any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience to the safe taking off, navigation, and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area; easements through, or other 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":

(a) satellite parking facilities;

(b) retail and commercial development outside of the terminal area, such as rental car facilities; and

(c) 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;

(2) "Authority" means either the Division, local government designated by General Statute, or delegated local government approved by the Commission where applicable;

(3) "Bridge" means spanning structures that begin and end at the bridge abutments and include support structures such as bents, pilings, and footings;

(4) "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;

(5) "Coastal wetlands" means marshland as defined in G.S. 113-229.

(6) "Commission" means the Environmental Management Commission or its successors;

(7) "DBH" means Diameter at Breast Height of a tree, which is measured at 4.5 feet above ground surface level;

(8) "Dam" means as defined in G.S. 143-215.25;

(9) "Diffuse flow" means the overland flow of water occurring in a disperse and non-erosive manner;

(10) "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial, intermittent or ephemeral streams;

(11) "Ephemeral stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the perched or seasonal high 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;

(12) "Existing Lot" means a lot of two acres in size or less that was platted and recorded in the office of the appropriate county Register of Deeds prior to August 1, 2000.

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(13) "Forest management plan" means as defined in Chapter 160A-458.5(4);

(14) "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;

(15) "Greenway" means public or private trails ~~that have associated permanent deeded easement, constructed of pervious and impervious surfaces~~ which can include, but are not limited to boardwalks, steps, rails, signage, etc. that have associated permanent deeded easement. Private greenways ~~are not for a single family residence~~ serve a common development;

(16) "Hiking Trail" means cleared trails with natural substrate with a maximum buffer disturbance of six (6) feet wide;

(17) "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~~ non-pine species, 16-inch DBH or greater or 24-inch or greater stump diameter;

(18) "Impervious Surface" means artificial structures such as roads, houses, sidewalks, driveways and parking lots that are covered by impenetrable materials such as gravel, asphalt, concrete, brick, stone and rooftops;

(19) "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 perched or seasonal high 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;

(20) "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 at least an intermittent ~~the regular~~ conveyance of water;

(21) "Natural Drainageway" means any water course, channel, ditch or similar physiographic feature draining water from land to down gradient areas;

(22) "Neuse River Basin Riparian Buffer Rule" means 15A NCAC 02B .0233 (Neuse River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Existing Riparian Buffers), effective August 1, 2000.

(23) "New Conveyance" means any conveyance (i.e. drainage ditch, roadside ditch or stormwater outfall) that is ~~either~~ constructed where one did not previously exist~~;~~, an existing conveyance is relocated or re-aligned, or the carrying capacity of an existing conveyance is modified;

(24) "Normal Water Level" means the water level within a pond, lake, or other type of impoundment, natural or man-made (including beaver ponds), at the elevation of the outlet structure or spillway (i.e., the elevation of the permanent pool). The normal water level can often be identified by the lowest edge of the terrestrial vegetation;

(25) "Pedestrian Access Trails" means perpendicular pedestrian trails constructed of pervious or impervious surfaces, and related structures to access a surface water including boardwalks, steps, rails, signage, etc. The maximum buffer disturbance from both the surface and cleared shoulders shall not be greater than six (6) feet wide;

(26 "Perched water table" means a saturated soil horizon or horizon subdivision, with free water surface periodically observed in a bore hole or shallow monitoring well, but generally above the normal water table, or may be identified by drainage mottles or redoximorphic features, and caused by a less permeable lower horizon;

(27) "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 perched or seasonal high 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;

(28) "Perennial waterbody" means a natural or man-made basin 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 drainageway (i.e., connected by surface flow to a stream);

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(29) "Perpendicular" means leading toward the nearest subject surface water at an angle between 75 degrees and 105 degrees;

(30) "Pruning" means the removal of dead tree or shrub branches or live tree or shrub branches with a diameter of less than 4 inches. If a branch being removed is greater than 4 inches, it is no longer considered pruning. Branches greater than 4 inches in diameter should only be removed when the branch is a safety issue.

(a) Pruning for Deciduous Trees: If pruning must be done on deciduous trees, then it should only be performed once a year during the dormant season or immediately following an "act of God" situation, such as a hurricane or ice storm that causes tree damage. Dead branches on trees can be removed any time. (http://www.na.fs.fed.us/spfo/pubs/howtos/ht_prune/prun001);

(b) Pruning for Coniferous Trees: Conifers may be pruned any time of year, but pruning during the dormant season may minimize sap and resin flow from cut branches. Dead branches on trees can be removed any time;

(c) Pruning for Shrubs: According to Dr. Barbara Fair, Assistant Professor in the Department of Horticulture Science at North Carolina State University, an acceptable way of pruning shrubs would involve the selective removal of branches while maintaining the natural shape of the plant. Small branches that do not conform to the natural shape of the shrub can be removed as needed. Cutting the branches of a shrub down to its main trunk is not a selective removal of branches and could compromise the plant. If shrubs are pruned properly, it should not be obvious;

(31) "Riparian buffer" means the vegetated area as defined in Rule 15A NCAC 02B .0292 (1) adjacent to a surface water body;

(32) "Riparian buffer enhancement" ~~is~~ means ~~defined as~~ the process of converting a non-forested riparian area, where woody vegetation is sparse ~~(greater than or equal to 100 trees per acre but less than 200 trees per acres)~~ to a forested riparian buffer area. The enhanced, forested riparian buffer area shall include a minimum of at least ~~two~~ five native hardwood tree species planted at a density sufficient to provide 320 trees per acres at maturity, and diffuse flow through the riparian buffer shall be maintained;

(33) "Riparian buffer restoration" ~~is~~means ~~defined as~~ the process of converting a non-forested riparian area, where woody vegetation is absent ~~(less than 100 trees per acre)~~ to a forested riparian buffer area. The restored, forested riparian buffer area shall include a minimum of at least ~~two~~ five native hardwood tree species planted at a density sufficient to provide 320 trees per acres at maturity, and diffuse flow through the riparian buffer shall be maintained;

(34) "Seasonal High Water Table" means the highest level that groundwater, at atmospheric pressure, reaches in the soil in most years. The seasonal high water table is usually detected by the mottling of the soil that results in mineral leaching;

(35) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface;

(36) "Streambank or shoreline stabilization" is the in-place stabilization of an eroding streambank or 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.~~

(37) "Stream restoration" ~~is~~ means ~~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. 'Reference' or 'reference reach' means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. ~~A reference~~ Reference reach ~~can~~ data shall be used to develop natural channel design criteria for stream restoration projects;

(38) "Stump diameter" means diameter of a tree measured at six inches above ground surface level;

(39) "Surface water" means all waters of the state as defined in G.S. 143-212 except underground waters;

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(40) "Tar-Pamlico River Basin Riparian Buffer Rule" means 15A NCAC 02B .0259 (Tar-Pamlico River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Existing Riparian Buffers), effective August 1, 2000.

(41) "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 is restored upon completion of construction;

(42) "Transportation facility" means the existing road surface, road shoulders, fill slopes, and in some cases constructed stormwater conveyances. For road sections constructed with a cut slope, the constructed stormwater conveyance immediately adjacent to the road shoulder is considered part of the transportation facility. For road sections constructed with a fill slope, the constructed stormwater conveyance adjacent to the fill slope is not considered part of the transportation facility. It is possible to have a road section with a cut slope on one side of the road and a fill slope on the other side of the road. In these situations, the transportation facility would include the adjacent stormwater conveyance on the cut slope side and would not include the stormwater conveyance on the fill slope side. Streams, wetlands, and open waters adjacent to the roadway are not considered part of the transportation facility;

(43) "Tree" means a woody plant with a DBH equal to or exceeding five inches or a stump diameter equal to or exceeding six inches; and

(44) "Water dependent structures" means those structures for which the use requires access or proximity to or siting within surface waters to fulfill its basic purpose, such as boat ramps, boathouses, docks and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259; S.B 824-2003; S.L 2011-394*
Eff.

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15A NCAC 02B .0292 **PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS: MANAGEMENT STRATEGY**

The following is the management strategy for maintaining and protecting existing riparian buffers.

(1) 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 (3) 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 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 the surface water. Where an intermittent or perennial stream begins or ends, including when it goes underground, enters or exits a culvert, or enters or exits a wetland, the required distance shall be measured as a radius around the beginning or the end;

(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 the surface water;

(b) For surface waters within the Neuse and Tar-Pamlico River Basins and within the 20 Coastal Counties (defined in 15A NCAC 02B .0202) within the jurisdiction of the Division of Coastal Management, Zone 1 shall begin at the most landward limit of:

(i) the normal high water level;

(ii) the normal water level; or

(iii) except for existing lots as defined in Rule 02B .0291, the landward limit of coastal wetlands as defined by the Division of Coastal Management;

and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water, whichever is more restrictive.

(c) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for activities and uses provided for in Item (3) 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.

(2) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow to impede the formation of erosion gullies and ensuring stable permanent vegetation~~reestablishing vegetation~~.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters the Zone 2 of the riparian buffer;

(b) Corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies and ensuring stable permanent vegetation; and

(c) No new stormwater conveyances are allowed through the buffers except for those specified in Item (3) of this rule addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

(3) TABLE OF USES. The following ~~chart~~ table sets out potential new uses within the buffer, or outside the buffer with hydrological impacts on the buffer, and categorizes them as exempt, potentially allowable, or potentially allowable with mitigation. All uses not categorized as exempt, potentially allowable, or potentially allowable with mitigation are considered prohibited and may not proceed within the riparian buffer or outside the buffer if the use would impact the buffer, unless a variance is granted pursuant to Item (6) of this rule. The requirements for each category are given in Item (4) of this rule.

Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
~~Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities:~~			

Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
~~• 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 are 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~~	
Airport facilities: • 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 Federal Aviation Administration requirements (e.g. radar uses or landing strips)[1]		X X	X
Archaeological activities	X		
Bridges		X	
Buffer Restoration: • Buffer restoration for compensatory mitigation • Buffer restoration other than for compensatory mitigation	X	X	
~~Canoe/ kayak access:~~ ~~• Provided that installation and use does not result in removal of tree(s) as defined in this Rule and no impervious surface is added to buffer~~ ~~• Provided that installation and use does result in removal of tree(s) as defined in this Rule and no impervious surface is added to buffer~~	~~X~~	~~X~~	
Coastal Residential Properties in the Neuse And Tar-Pamlico River Basins/Development of an Existing Coastal Residential Property Provided: (1) The residence is set back the maximum feasible distance from the normal high-water level or normal water level, whichever is applicable, on the existing lot and designed to minimize encroachment into the riparian buffer. (2) The residence is set back a minimum of 30 feet landward of the normal high-water level or normal water level, whichever is applicable. (3) Stormwater generated by new impervious surface within the riparian buffer is treated and diffuse flow of stormwater is maintained through the buffer. (4) If the residence will be served by an on-site wastewater system, no part of the septic tank or drainfield may encroach into the riparian buffer.		X	
Dam maintenance activities: (not including new outfalls) • Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of	X		

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
the existing dam or those covered under a U.S. Army Corps of Engineers Nationwide Permit • 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 ~~outfalls~~ conveyances through riparian buffers: • New stormwater flows to existing drainage ditches, roadside ditches, and stormwater conveyances provided that 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 nutrients 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 (1) and (2) of this rule is established adjacent to the new channel.	X		
Driveway crossings of streams and other surface waters subject to this rule: • 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
Fences for fencing livestock out of surface waters	X		
Fences; other than agricultural fences used for BMPs : • Fences provided that disturbance is minimized and installation does not result in removal of trees as	X		

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
defined in this rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this rule		X	
Forest harvesting - see 15A NCAC 02B .0293			
Fertilizer Application: one-time fertilizer application to establish vegetation[7]	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 stabilized until they are revegetated.	X		
Greenway: 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. Greenways must be positioned outside of Zone 1 of the riparian buffers unless no practical alternatives that meets Item 5 of this Rule. • Private greenway that is five (5) feet wide and shoulders two (2) feet wide • Private greenway greater than five (5) feet to eight (8) feet wide and shoulders two (2) feet wide • Public greenway eight (8) feet wide and shoulders two (2) feet wide. • Public greenway greater than ten (10) feet wide and shoulders two (2) feet wide.		X X	 X X
Hiking Trail • With natural substrate and a maximum width of four (4) feet in Zone 2 only. • With natural substrate and a width of no greater than six (6) feet in Zone 1 or 2.	X	 X	
Historic preservation	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: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (1) and (2) of this rule are established adjacent to the relocated channels or created waterbody • Mining activities that are not covered by the Mining Act or where new riparian buffers that meet the requirements or Items (1) and (2) of this rule are not established adjacent to the relocated channels or created waterbody. • Wastewater or mining dewatering wells with	 X	X	 X

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
approved NPDES permit			
Pedestrian access trails and associated steps leading to the surface water, docks, canoe/kayak access, fishing piers, boat access trails, boat ramps and other water dependent activities: • Pedestrian perpendicular 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 perpendicular access trails that are ~~4~~ no greater than 6 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this rule and pervious surface is added to the riparian buffer ~~or impervious surface is added to the riparian buffer~~ • Pedestrian perpendicular access trails that are no greater than 6 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this rule and impervious surface is added to the riparian buffer • Pedestrian non-perpendicular access trails of any width	X	X	X X
Playground equipment: • ~~Playground equipment on single family lots provided that installation and use does not result in removal of tree(s).~~ On single family lots provided that installation and uses are only located in Zone 2. • On single family lots where installation and uses are located in Zone 1. • ~~Playground equipment~~ ~~i~~Installed on lands other than single-family lots or that requires removal of tree(s).	X	X X	
Ponds created by impounding streams used for irrigation associated with an agricultural use: • If the existing buffer is non-forested for Zone 1 and the newly established buffer is stabilized with vegetation that meets the requirements of Item (2) of this rule. • If the existing buffer is forested in Zone 1 and the newly established buffer adjacent to the pond meets the requirements of Items (1) & (2) of this rule.	X	X	
Ponds created or modified by impounding streams and not used as stormwater BMPs: • New ponds provided that a riparian buffer that meets the requirements of Items (1) & (2) of this rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (1) & (2) of this rule is not established adjacent to the pond		X	X

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
~~Option 1:~~ ~~Properties (single family lots) less than or equal to two (2) acres in size in the Neuse or Tar Pamlico basins in one of the twenty coastal counties as defined by the Coastal Area Management Act that are platted and recorded with the applicable County's Register of Deeds prior to August 1, 2000:~~ ~~• Uses in Zone 2 (other than septic, on-site waste systems and drainfields) provided a stormwater facility is installed to treat for the new impervious surface in the protected riparian buffer, the ground is stabilized and diffuse flow is maintained through the buffer that meets the requirements of Sub Item (6)(a) of this Rule~~ • ~~Uses in Zone 1 (other than septic, on-site waste systems and drainfields) provided a stormwater facility is installed to treat for the new impervious surface in the protected riparian buffer, the ground is stabilized and diffuse flow is maintained through the buffer that meets the requirements of Sub Item (6)(a) of this Rule~~		~~X~~	~~X~~
~~Option 2:~~ ~~Properties (single family lots) less than or equal to two (2) acres in size in the Neuse or Tar Pamlico basins in one of the twenty coastal counties as defined by the Coastal Area Management Act that are platted and recorded with the applicable County's Register of Deeds prior to August 1, 2000:~~ ~~• Uses in Zone 2 (other than septic, on-site waste systems and drainfields) provided a stormwater facility is installed to treat for the new impervious surface in the protected riparian buffer, the ground is stabilized and diffuse flow is maintained through the buffer~~ • ~~Uses in Zone 1 (other than septic, on-site waste systems and drainfields) provided a stormwater facility is installed to treat for the new impervious surface in the protected riparian buffer, the ground is stabilized and diffuse flow is maintained through the buffer~~		~~X~~	~~X~~
~~Properties (single family lots) on lake shorelines that are platted and recorded with the applicable County's Register of Deeds prior to the effective dates of the rules as listed in 15A NCAC 02B. 0290(5)(a):~~ • ~~Use in Zone 2 (other than septic, on-site waste systems and drainfields) provided a stormwater facility is installed to treat for the new impervious surface in the protected riparian buffer, the ground is stabilized and diffuse flow is maintained through the~~		~~X~~	

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
~~buffer~~ • ~~Uses in Zone 1 (other than septic, on-site waste systems and drainfields) provided a stormwater facility is installed to treat for the new impervious surface in the protected riparian buffer, the ground is stabilized and diffuse flow is maintained through the buffer~~			~~X~~
Protection of existing structures and facilities, ~~facilities, and streambanks~~ when this requires additional disturbance of the riparian buffer. ~~or the channel.~~		X	
Pumps for agricultural irrigation: • Provided that installation and use does not result of removal of tree(s) and does not violate downstream water quality standards. • Installation and use that results in removal of tree(s) and does not violate downstream water quality standards.	X 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: • 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 ~~in Zone Two~~: ~~• Sheds and gazebos in Zone Two, provided they are not prohibited under local water supply ordinance:~~ ~~o Total footprint less than or equal to 150 square feet per lot.~~ ~~o Total footprint greater than 150 square feet per lot.~~ ~~• Wooden slatted decks and associated steps, provided the use meets the requirements of Items (7) and (8) of this Rule:~~ ~~o Deck at least eight feet in height and no vegetation removed from Zone One.~~ ~~o Deck less than eight feet in height or vegetation removed from Zone One.~~ Wooden-slatted uncovered decks (and associated steps) attached to a dwelling that are in Zone 1 or 2 and 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 (1) and (2) of this rule.		~~X~~ ~~X~~ X	~~X~~ ~~X~~	
Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored	X		
Restoration/enhancement (wetland, stream) Wetland or stream restoration that results in impacts to		X	

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
the riparian buffer			
Road perpendicular crossings of streams and other surface waters subject to this rule[5]: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Road impacts other than perpendicular crossings of streams and other surface waters subject to this rule[5]			X
Road relocation of existing private access roads associated with public road projects where necessary for public safety: • Less than or equal to 2,500 square feet of buffer impact • Greater than 2,500 square feet of buffer impact		X	X
Scientific studies and stream gauging	X		
Stormwater BMPs: • Wet detention, bioretention, and constructed wetlands in Zone 2 if diffuse flow of discharge is provided in Zone 1 • Wet detention, bioretention, and constructed wetlands in Zone 1		X	X
Streambank or shoreline stabilization		X	
Temporary roads, provided that the area is to be 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 wooded buffer shall comply with the restoration criteria in Paragraph (f) of Rule 15A NCAC 02B. 0295: • Less than or equal to 2,500 square feet of buffer disturbance • Greater than 2,500 square feet of buffer disturbance • Associated with culvert installation or bridge construction or replacement	X	X X	
Temporary sediment and erosion control devices provided that the disturbed area is restored to preconstruction topographic and hydrologic conditions immediately after construction is completed 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 wooded buffer shall comply with the restoration criteria in Paragraph (f) of Rule 15A NCAC 02B. 0295: • In Zone 2 only provided ground cover is ~~re-~~	X		

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
~~established~~ 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 released as diffuse flow in accordance with Item (2) of this rule			
• In Zones 1 and 2 to control impacts associated with uses approved by the ~~local government~~ Authority or that have received a variance provided that sediment and erosion control for upland areas is addressed outside the buffer		X	
• In-stream temporary erosion and sediment control measures for work within a stream channel that has written approval from the Division and the Army Corps of Engineers ~~is authorized~~ under Sections 401 & 404 of the Federal Water Pollution Control Act		X	
Utility, electric, aerial, perpendicular crossings of streams and other surface waters subject to this rule:[2,3,5]			
• Disturb equal to or less than 150 linear feet of riparian buffer	X		
• Disturb greater than 150 linear feet of riparian buffer		X	
Utility, electric, aerial, other than perpendicular crossings:[5]			
• Impacts in Zone 2		X	
• Impacts in Zone 1[2,3]			X
Utility, electric, underground, perpendicular crossings:[3,4,5]			
• Disturb less than or equal to 40 linear feet of riparian buffer	X		
• Disturb greater than 40 linear feet of riparian buffer		X	
Utility, electric, underground, other than perpendicular crossings:[4,5]			
• Impacts in Zone 2	~~X~~	X	
• Impacts in Zone 1[1]	~~X~~		X
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this rule[3,5]:			
• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width	X		
• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width		X	
• Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width		X	
• Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width			X
• Disturb greater than 150 linear feet of riparian buffer			X

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
• Impacts for vehicular access for maintenance of non electric utilities lines (if fill occurs in stream then must apply for appropriate 404/401)		X	
Option 1: Utility, non-electric, other than perpendicular crossings[4,5] : • New non-electric utility impacts : -In Zone 2 -In Zone 1 • Installing an additional non-electric utility line outside of a maintained corridor of an existing utility line easement: -In Zone 2 -In Zone 1 • Installing an new non-electric utility line within a pre-established easement that does not currently contain a line: -In Zone 2 -In Zone 1 • Installing a non-electric utility line within a pre-established maintained corridor (no new buffer impacts) • Maintaining/mowing an existing non-electric utility line maintenance corridor per buffer authorization • Maintaining/mowing an existing non-electric utility line maintenance corridor with: -An existing maintenance corridor footprint (maintenance has occurred within last 10 years) -No maintenance corridor footprint (no maintenance has occurred within 10 years) • Replacing an existing non-electric utility line within the footprint of the existing maintenance corridor with: -A line the same size, smaller or larger and within an existing maintenance corridor footprint (no new buffer impact) -A line the same size, smaller or larger and within an unmaintained easement (>10 years) • Replacing an existing non-electric utility line outside of the footprint of the existing maintenance corridor: -In Zone 2 (buffer impacts outside of existing corridor) -In Zone 1 (buffer impacts outside of existing corridor)	X X X	X X X X X X	X X X X
Option 2: Utility, non-electric, other than perpendicular crossings[5] : • New non-electric utility impacts : -In Zone 2 -In Zone 1 • Installing an additional non-electric utility line outside of a maintained corridor of an existing utility line easement:		X X	X

Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
-In Zone 2			X
-In Zone 1			
• Installing an new non-electric utility line within a pre-established easement that does not currently contain a line:			
-In Zone 2		X	
-In Zone 1			X
• Installing a non-electric utility line within a pre-established maintained corridor (no new buffer impacts)	X		
• Maintaining/mowing an existing non-electric utility line maintenance corridor per buffer authorization	X		
• Maintaining/mowing an existing non-electric utility line maintenance corridor with:			
-An existing maintenance corridor footprint	X		
-No maintenance corridor footprint			
• Replacing an existing non-electric utility line within the footprint of the existing maintenance corridor with:		X	
-A line the same size, smaller or larger and within an existing maintenance corridor footprint (no new buffer impact)	X		
-A line the same size, smaller or larger and within an unmaintained easement Replacing an existing non-electric utility line outside of the footprint of the existing maintenance corridor:		X	
-In Zone 2 (buffer impacts outside of existing corridor)		X	
-In Zone 1 (buffer impacts outside of existing corridor)			X
Vehicle access roads and boat ramps (excluding parking areas) leading to surface water, docks, fishing piers, and other water dependent activities:			
• Single vehicular access road and boat ramp to the surface water but not crossing the surface water that are restricted to the minimum width practicable not to exceed 10 feet in width		X	
• Vehicular access roads and boat ramps to the surface water but not crossing the surface water that are restricted to the minimum width practicable and exceed 10 feet in width			X
Vegetation management:			
• Emergency fire control measures provided that topography and hydrology is restored	X		
• Periodic mowing and harvesting of plant products in Zone 2 only	X		
• Planting vegetation to enhance the riparian buffer	X		
• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised	X		
• Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life	X		
• Removal of individual trees that are dead, diseased or damaged.	X		

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Use	Exempt	Potentially Allowable*	Potentially Allowable with Mitigation*
• Removal of poison ivy/oak/sumac • Removal of understory nuisance vegetation as defined in[6]: Smith, Cherri L. 2008. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. • Placement of mulch ring around restoration plantings for a period of 5 years from date of planting	X X X		
Water dependent structures (except for boat ramps) as defined in 15A NCAC 02B .0202		X	
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Items (1) and (2) of this rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (1) and (2) of this rule is not established adjacent to the reservoir		X	X
Water wells: • Single family water wells • All other water wells	X	X	
Wildlife passage structures		X	

* To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item 5 of this rule.

[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 ~~only preformed~~ 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 (1) and (2) 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 Authority, as defined in Item (5) 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 Authority completes a no practical alternative evaluation as defined in Item (5) 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 Authority, as defined in Item (5) of this rule.

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- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Measures shall be taken 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.

[6] Removal can include application of ~~herbicides~~ pesticides within the 50-foot buffer, with the following conditions:

- ~~Herbicides~~Pesticides used are certified by EPA for use in or near aquatics sites;
- ~~Herbicides~~Pesticides are applied in accordance with the manufacturers instructions, and
- ~~Herbicides are applied by a licensed pesticide applicator as determined by the North Carolina Pesticide Board~~

[7] Only applies to the one-time ~~No~~ application of fertilizer in the riparian buffers. No runoff from this one-time application in the buffers is allowed in the applicable surface waters ~~is allowed~~.

(4) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, potentially allowable, and potentially allowable with mitigation in Item (3) of this rule shall have the following requirements:

(a) EXEMPT. Uses designated as exempt may occur ~~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 (3) 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 state or federal entities for impacts within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (5) 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 state or federal entities for impacts within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (5) of this rule and an appropriate mitigation strategy has been approved pursuant to Item (7) of this rule; and

(d) PROHIBITED. Uses that are not designated in Item (3) of this rule are considered prohibited in the riparian buffers unless a variance is granted.

(5) DETERMINATION OF "NO PRACTICAL ALTERNATIVES."

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

(i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality;

(ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality; and

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(iii) Best management practices shall be used if ~~necessary~~ required to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) The applicant shall also submit at least the following information in support of their assertion of "no practical alternatives":

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;

(v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) Within 60 days of receipt of a submission that addresses Sub-Item (5)(b) of this rule, the Authority shall review the entire project and make a finding of fact as to whether the criteria in Sub-Item (5)(a) have been met. A finding of "no practical alternatives" shall result in issuance of an Authorization Certificate. Failure to act within 60 days shall be construed as a finding of "no practical alternatives" and an Authorization Certificate shall be issued to the applicant unless one of the following occurs:

(i) The applicant agrees, in writing, to a longer period;

(ii) The local government determines that the applicant has failed to furnish requested information necessary to the local government's decision;

(iii) The final decision is to be made pursuant to a public hearing; or

(iv) The applicant refuses access to its records or premises for the purpose of gathering information necessary to the local government's decision.

(d) The Authority may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program.

(e) Any appeals of determinations regarding Authorization Certificates shall be referred to the Director. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(6) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The ~~Division or the appropriate delegated local authority~~Authority may grant minor variances. For major variances, the Authority shall prepare preliminary findings and submit them to the Commission for approval. The variance request procedure shall be as follows:

(a) For any variance request, the Authority shall make a finding of fact as to whether there are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. A finding of practical difficulties or unnecessary hardships shall require that the following conditions are met:

(i) If the applicant complies with the provisions of this 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 Authority 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; and

(ii) The hardship results from application of this rule to the property rather than from other factors such as deed restrictions or other hardship; and

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

(iv) The applicant did not cause the hardship by knowingly or unknowingly violating this rule; and

(v) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the

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hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice; and

Option 1:(vi) ~~Except for the Randleman Reservoir, the applicant did not purchase the property after the effective dates of the rules as listed in Sub-Item (5)(a) in Rule 15A NCAC 2B .0290 and then ask for a variance; or~~

Option 2: (vi) Except for the Randleman Reservoir, the applicant did not purchase the property after the effective dates of the rules as listed in Sub-Item (5)(a) in Rule 15A NCAC 2B .0290 and then ask for a variance; or

(vii) Except for the Randleman Reservoir, the applicant's property showing a lot is intended to be built upon rather than dedicated to open space and ~~building envelope~~ was platted and recorded with the applicable County's Register of Deeds prior to the effective dates of the rules as listed in Sub-Item (5)(a) in Rule 15A NCAC 2B .0290; or

(viii) The structure on the applicant's property was constructed prior to the effective date of the rule as listed in Sub-Item (5)(a) in Rule 15A NCAC 2B .0290 unless there is a rare or unique hardship to the applicant and the applicant's use of the property, including the need to expand the existing structure on the property as the result of an individual who requires access to facilities because of an ambulatory disability or as otherwise determined by the Commission.

(b) For any variance request, the Authority shall make a finding of fact as to whether 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) For any variance request, the Authority shall make a finding of fact as to whether, in granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(d) MINOR VARIANCES. A minor variance request pertains to activities that are proposed ~~only to impact any portion of Zone 2~~ 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 ~~Item (5)~~ Items 5 and 6 of this rule. ~~by the either the Division or the delegated local authority~~ Authority ~~pursuant to G.S. 153A Article 18, or G.S. 160A Article 19.~~ The Authority may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals made by the local authority shall be made to the appropriate Board of Adjustments under G.S. 160A-388 or G.S. 153A-345.~~Request for appeals to decisions made by the local governments shall be made in writing to the Director. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.~~

(e) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 ~~or any portion of both Zones 1 and 2~~ of the riparian buffer. If the Authority has determined that a major variance request meets the requirements in Items 5 and 6 ~~Item (6)~~ of this rule, then it shall prepare a preliminary finding and submit it to the Commission for approval. Preliminary findings on major variance requests shall be reviewed by the Commission within 90 days after receipt. Requests for appeals of determinations that the requirements of Item (6) of this rule have not been met shall be made to the Office of Administrative Hearings for determinations made by the Division or the appropriate Board of Adjustments under G.S. 160A-388 or G.S. 153A-345 for determinations made by the local authority. The purpose of the Commission's review is to determine if it agrees that the requirements in Item (6) of this rule have been met. Requests for appeals of decisions made by the Commission shall be made to the Office of Administrative Hearings. The following actions shall be taken depending on the Commission's decision on the major variance request:

(i) Upon the Commission's approval, the ~~Division or the delegated local authority~~Authority shall issue a final decision granting the major variance;

(ii) Upon the Commission's approval with conditions or stipulations, the ~~Division or the delegated local authority~~ Authority shall issue a final decision, which includes these conditions or stipulations;

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(iii) Upon the Commission's denial, the ~~Division or the delegated local authority~~ Authority shall issue a final decision denying the major variance. Appeals from a Commission decision on a major variance request are made on judicial review to Superior Court.

(f) Option 1:

~~GENERAL MAJOR VARIANCES. General Major Variances may be approved by the Commission for specific activities that are widespread throughout the watershed or are common situations in particular locations in the watershed and are not otherwise described in item (3) of this rule.~~

~~(i) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and~~

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

Option 2: GENERAL MAJOR VARIANCES. General Major Variances may be approved by the Commission for specific activities that are widespread throughout the watershed or are common situations in particular locations in the watershed and are not otherwise described in item (3) of this rule.

(i) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and

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

(7) MITIGATION. Persons who wish to undertake uses designated as potentially 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 (5) of this rule;

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0295.

(8) 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 laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, or any other landscape feature or water quality-related activity.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259; S.B 824-2003; S.L. 2011-394*
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15A NCAC 02B .0293 PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS: REQUIREMENTS SPECIFIC TO FOREST HARVESTING

The following minimum requirements shall apply for forest harvesting operations and practices where riparian buffers are required to be protected.

(1) All the following measures shall apply in the entire riparian buffer as applicable:

(a) Logging decks and sawmill sites shall not be placed in the riparian buffer;

(b) 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;

(c) Timber felling shall be directed away from the stream or waterbody;

(d) 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;

(e) Individual trees may be treated to maintain or improve their health, form or vigor;

(f) Harvesting of dead or infected trees as necessary to prevent or control the spread of 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 the rule. The Division of Forest Resources must notify the Division of all approvals;

(g) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed;

(h) 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;

(i) High-intensity prescribed burns shall not be allowed;

(j) Application of fertilizer shall not be allowed except as necessary for permanent stabilization: and ~~Broadcast application of fertilizer 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.~~

(k) Broadcast application of fertilizer 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.

(2) 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. A plan drafted under either option shall meet the standards set out in this Item. 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:

(a) 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 practice guidelines for water quality~~ forest practices guidelines related to water quality as defined in Rule 15A NCAC 01I ~~.0101~~ .0100 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;

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

(c) Trees shall be removed with the minimum disturbance to the soil and ~~residual~~ remaining vegetation.

(3) In addition to the requirements of (2) in this item, the following provisions for selective harvesting shall be met:

(a) 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, Item (3) of Rule 15A NCAC 02B .0292;

(b) 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

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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

(c)_____ In Zone 2, harvesting and regeneration of the forest stand shall be allowed provided that sufficient ground cover is maintained to provide for diffusion and infiltration of surface runoff. ~~in accordance with 15A NCAC 01I .0100 through .0200 as enforced by the Division of Forest Resources~~

History Note: Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259; S.B 824-2003.
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15A NCAC 02B .0294 PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS: RULE IMPLEMENTATION IN WATER SUPPLY WATERSHED

(1) RULE IMPLEMENTATION IN WATER SUPPLY WATERSHED. This Rule shall be implemented as follows for the watersheds or basins listed in Sub-Item (2)(c) of Rule 15A NCAC 2B .0290:

(a) For Division-administered activities listed in Sub-Item (2)(b) of ~~this~~ Rule 15A NCAC 2B .0290, the Division shall implement the requirements of this rule as of its effective date;

(b) Within two months after the effective date of this rule, the Division shall submit a model local riparian buffer protection ordinance that embodies the standards set out in Rules 15A NCAC 02B .0290 through .0293 and Rule 15A NCAC 02B .0295 to the Commission for approval;

(c) Within six months after the Commission's approval of a model local buffer ordinance, local governments shall submit local programs to the Division for review based on the standards set out in ~~this~~ Rules 15A NCAC 02B .0290 through .0293 and Rule 15A NCAC 02B .0295. A local program shall also detail implementation including but not limited to such factors as a method for making variance determinations, a plan for record keeping, and a plan for enforcement. Local governments shall use the latest version of the Division's publication, *Identification Methods for the Origins of Intermittent and Perennial Streams*, available at http://h2o.enr.state.nc.us/ncwetlands/documents/NC_Stream_ID_Manual.pdf or at the 401/Wetlands Unit of the North Carolina Division of Water Quality at: Mail Service Center 1650, Raleigh, NC, 27699-1650, to establish the existence of streams;

(d) Within one year after the Commission's approval of a model local buffer ordinance, the Division shall provide recommendations to the Commission on local buffer programs. The Commission shall either approve the programs or require changes based on the standards set out in ~~this~~ Rules 15A NCAC 02B .0290 through .0293 and Rule 15A NCAC 02B .0295. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(e) Within 2 months after the Commission's approval of local buffer programs, local governments shall implement programs to ensure that existing land use activities and proposed development complies with local programs. A local government shall issue an approval for new development only if the development application proposes to avoid impacts to riparian buffers defined in Item (3) of ~~this~~ Rule 15A NCAC 02B .0290, or where the application proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

(i) Determined that the activity is exempt from requirements of this rule;

(ii) Received an Authorization Certificate from the Division pursuant to Item (5) of ~~this~~ Rule 15A NCAC 02B .0292 for uses designated as Potentially Allowable or Potentially Allowable with Mitigation;

(iii) For uses designated as Potentially Allowable with Mitigation, received approval of a mitigation plan pursuant to Rule 15A NCAC 02B .0295; and

(iv) Received a variance pursuant to Item (6) of ~~this~~ Rule~~;~~ 15A NCAC 02B .0292;

(f) Upon implementation, local governments shall submit annual reports to the Division summarizing their activities in implementing the requirements of this rule;

(g) 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; and

(h) LOCAL OVERSIGHT. The Division shall periodically inspect local programs to ensure that they are being implemented and enforced in keeping with the requirements of this rule. Local governments shall maintain on-site records for a minimum of five years, and shall furnish a copy of these records to the Division within 30 days of receipt of a written request for them. Local programs' records shall include the following:

(i) A copy of all variance requests;

(ii) Findings of fact on all variance requests;

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(iii) Results of all variance proceedings;
(iv) A record of complaints and action taken as a result of complaints;
(v) Records for stream origin calls and stream ratings; and
(vi) Copies of all requests for authorization, records approving authorization and Authorization Certificates.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259; S.B 824-2003.*
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