Section 204. Stream Buffers

A fifty foot (50') riparian stream buffer shall be maintained on both sides of all perennial and intermittent streams at all times to retard rapid water runoff and soil erosion. The requirements of this section shall not apply to bona fide farming operations or existing and ongoing uses provided that the use of the existing buffer area does not change.

A. Buffer Classifications

Riparian stream buffers shall have two classifications and be defined as the following:

1. Zone One Buffer

- a. Zone one buffers shall consist of a vegetated area that is undisturbed.
- b. For both intermittent and perennial streams, Zone One shall begin at the top of the bank and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the top of the bank.

2. Zone Two Buffer

- a. Zone Two shall consist of a stable, vegetated area. Grading and revegetating in Zone Two is allowed provided that the health of the vegetation in Zone One is not compromised.
- b. Zone Two shall begin at the outer edge of Zone One and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones One and Two shall be 50 feet on all sides of the surface water.

B. Stream Determination

For the purpose of this Ordinance, the following maps shall be used for purposes of identifying a water body subject to the requirements of this ordinance:

- a. The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS).
- b. Perennial streams shall be identified as a solid blue line and intermittent streams shall be identified as a dotted blue line on the USGS quadrangle map.

C. Diffuse Flow Requirements

Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow prior to its entry into the buffer and reestablishing vegetation as follows:

- a. Concentrated runoff from new ditches or man-made conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone Two of the riparian buffer;
- b. Periodic corrective action to restore diffuse flow shall be taken as necessary and shall be designed to impede the formation of erosion gullies; and
- c. As set out in this Ordinance, The Zones of the Riparian Buffer and Table of Uses respectively, no new stormwater conveyances are allowed through the buffers except for those specified in the Table of Uses, addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

D. Potential Uses and Requirements

1. Approval for New Development

Alamance County shall issue an approval for new development only if the development application proposes to avoid impacts to riparian buffers defined in this Ordinance, or where the application proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

- a. Determined the activity is exempt from requirements of this Ordinance;
- b. Received an Authorization Certificate from the Division pursuant to Appendix A of this Ordinance;
- c. For uses designated as Allowable with Mitigation in the Table of Uses in Appendix A, received approval of mitigation plan pursuant to the requirements of this Ordinance; and
- d. Received a variance pursuant to this Ordinance.

2. Table of Uses

A table of uses is located in Appendix A of this ordinance. The table sets out potential new use within the buffer or outside the buffer with impacts on the buffer, and categorizes them as exempt, allowable, or allowable with mitigation. All uses not categorized as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer or outside the buffer if the use would impact the buffer, unless a variance or request for authorization is granted pursuant to the requirements of this Ordinance.

a. Exempt.

Uses designated as exempt are permissible without authorization by Alamance County provided that they adhere to the limitations of the activity as defined in Appendix A of this Ordinance, the Table of Uses. In addition, exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable, including construction, monitoring, and maintenance activities.

b. Allowable.

Uses designated as allowable may proceed provided that there are no practical alternatives to the requested. This includes construction, monitoring, and maintenance activities. These uses require written authorization from Alamance County.

c. Allowable with Mitigation.

Uses designated as allowable with mitigation may proceed provided that there are no practical alternatives to the requested and an appropriate mitigation strategy has been approved. These uses require written authorization from Alamance County.

E. Procedures for Certificate of Approval/No Reasonable Alternative Determinations

- 1. 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 Alamance County Planning Department. The applicant shall certify that the project meets all the following criteria for finding "no practical alternatives":
 - a. 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;
 - b. 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
 - c. Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.
- 2. The applicant shall also submit at least the following information in support of their assertion of "no practical alternatives":
 - a. The name, address and phone number of the applicant;
 - b. The nature of the activity to be conducted by the applicant;
 - c. The location of the activity, including the jurisdiction;
 - d. 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;
 - e. 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
 - f. Plans for any best management practices proposed to be used to control the impacts associated with the activity.

F. Mitigation

- 1. This item shall apply to persons who wish to impact a riparian buffer in the Jordan watershed when one of the following applies:
 - a. A person has received an Authorization Certificate pursuant to Section 204.(E) of this Ordinance for a proposed use that is designated as "allowable with mitigation;" or
 - b. A person has received a variance pursuant to Section 306 of this Ordinance and is required to perform mitigation as a condition of a variance approval.

2. <u>Issuance of the Mitigation Approval</u>

Alamance County shall issue a mitigation approval upon determining that a proposal meets the requirements set out in this Ordinance. The approval shall identify at a minimum the option chosen, the required and proposed areas, and either the mitigation location or the offset payment amount as applicable.

3. Options for Meeting the Mitigation Requirement

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

- a. Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0269 (Jordan Water Supply Nutrient Strategy: Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program) contingent upon acceptance of payments by the NC Ecosystem Enhancement Program, or to a private mitigation bank that complies with banking requirements of the US Army Corps of Engineers, currently set out at http://www.saw.usace.army.mil/WETLANDS/Mitigation/mitbanks.html or from the US Army Corps of Engineers, P.O. Box 1890, Wilmington, NC, 28402-1890, and the applicable trading criteria in Rule 15A NCAC 02B .0273;
- b. Donation of real property or of an interest in real property; or
- c. Restoration or enhancement of a non-forested riparian buffer.

4. The Area of Mitigation

Alamance County shall determine the required area of mitigation, which shall apply to all mitigation options identified in Section 204.(F)(3) of this Ordinance and as further specified in the requirements for each option set out in this Section, according to the following:

- a. The impacts in square feet to each zone of the riparian buffer shall be determined by Alamance County by adding the following:
 - i. The area of the footprint of the use causing the impact to the riparian buffer;

- ii. The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use; and
- iii. The area of any ongoing maintenance corridors within the riparian buffer associated with the use.
- b. The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Section 204.(F)(4)(a) of this Ordinance to each zone of the riparian buffer:
 - i. Impacts to Zone One of the riparian buffer shall be multiplied by three;
 - ii. Impacts to Zone Two of the riparian buffer shall be multiplied by one and one-half; and
 - iii. Impacts to wetlands within Zones One and Two of the riparian buffer that are subject to mitigation under 15A NCAC 2H .0506 shall comply with the mitigation ratios in 15A NCAC 2H .0506.

5. The Location of Mitigation

For any option chosen, the mitigation effort shall be located within the same subwatershed of the Jordan watershed, as defined in 15A NCAC 02B.0262, and the same distance from the Jordan Reservoir as the proposed impact, or closer to the Reservoir than the impact, and as close to the location of the impact as feasible. Alternatively, the applicant may propose mitigation anywhere within the same subwatershed of the Jordan watershed, as defined in 15A NCAC 02B.0262, provided that the mitigation proposal accounts for differences in delivery of nutrients to the affected arm of Jordan Reservoir resulting from differences between the locations of the buffer impact and mitigation. Additional location requirements for the property donation option are enumerated in Section 204.(F)(6)(c)(i) of this Ordinance.

6. <u>Donation of Property</u>

Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

a. The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0273. The value of the property interest shall be determined by an appraisal performed in accordance with Section 204.(F)(6)(d)(iv) of this Ordinance. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to 15A NCAC 02B .0273, the applicant shall pay the remaining balance due.

- b. The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.
- c. Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:
 - i. In addition to the location requirements, the property shall be located within an area that is identified as a priority for restoration in, or is otherwise consistent with the goals of, the *Basinwide Wetlands and Riparian Restoration Plan for the Cape Fear River Basin* developed by NC Division of Water Quality pursuant to G.S. 143-214.10;
 - ii. The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration as defined in Section 204.(F)(7)(d) of this Ordinance;
 - iii. The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water;
 - iv. The size of the restorable riparian buffer on the property to be donated shall equal or exceed the area of mitigation responsibility determined pursuant to Section 204.(F)(4) of this Ordinance;
 - v. Restoration shall not require removal of man-made structures or infrastructure;
 - vi. The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;
 - vii. The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and transaction costs;
- viii. The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended;
 - ix. The property shall not contain any hazardous substance or solid waste;
 - x. The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations;
 - xi. The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort; and
 - xii. The property shall not have any encumbrances or conditions on the transfer of the property interests.

- d. At the expense of the applicant or donor, the following information shall be submitted to the Alamance County with any proposal for donations or dedications of interest in real property:
 - i. Documentation that the property meets the requirements laid out in Section 204.(F)(6)(c) of this Ordinance;
 - ii. US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements;
 - iii. A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609;
 - iv. A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734; and
 - v. A title certificate.

7. Riparian Buffer Restoration or Enhancement

Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

- a. The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:
 - i. The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Section 204.(F)(4) of this Ordinance; or
 - ii. The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Section 204.(F)(4) of this Ordinance:
- b. The location of the riparian buffer restoration or enhancement shall comply with the requirements in Section 204.(F)(5) of this Ordinance;
- c. The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water;

- d. Enhancement and restoration shall both have the objective of establishing a forested riparian buffer according to the requirements of this Item. Enhancement shall be distinguished from restoration based on existing buffer conditions. Where existing trees are sparse, that is greater than or equal to 100 trees per acre but less than 200 trees per acre, a buffer may be enhanced. Where existing woody vegetation is absent, that is less than 100 trees per acre, a buffer may be restored;
- e. The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of Section 204(E) of this Ordinance. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Alamance County Board of Adjustment. The restoration or enhancement plan shall contain the following:
 - i. A map of the proposed restoration or enhancement site;
 - ii. A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity;
 - iii. A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer;
 - iv. A fertilization plan; and
 - v. A schedule for implementation;
- f. Within one year after the Alamance County Board of Adjustment has approved the restoration or enhancement plan, the applicant shall present proof to Alamance County that the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of both the State's and the Alamance County riparian buffer protection program;
- g. The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions; and
- h. The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

Appendix A Table of Uses (Buffers)

Use	Exempt *	Allowable	Allowable with Mitigation*
Access trails: Pedestrian access trails leading to the			
surface water, docks, fishing piers, boat ramps and other			
water dependent activities:			
Pedestrian access trails that are restricted to the	X		
minimum width practicable and do not exceed 4 feet in			
width of buffer disturbance, and provided that			
installation and use does not result in removal of trees			
as defined in this Ordinance and no impervious surface			
is added to the riparian buffer			
Pedestrian access trails that exceed 4 feet in width of		X	
buffer disturbance, the installation or use results in			
removal of trees as defined in this Ordinance or			
impervious surface is added to the riparian buffer			
Airport facilities:			
Airport facilities that impact equal to or less than 150		X	
linear feet or one-third of an acre of riparian buffer			
Airport facilities that impact greater than 150 linear			X
feet or one-third of an acre of riparian buffer			
Activities necessary to comply with FAA requirements		X	
(e.g. radar uses or landing strips) ¹			
Archaeological activities	X		
Bridges		X	
Canoe Access provided that installation and use does not	X		
result in removal of trees as defined in this Ordinance			
and no impervious surface is added to the buffer.			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2) of this Ordinance.

Use	Exempt *	Allowable	Allowable with Mitigation*
Dam maintenance activities:			
Dam maintenance activities that do not cause	X		
additional buffer disturbance beyond the footprint of			
the existing dam or those covered under the U.S. Army			
Corps of Engineers Nationwide Permit No. 3			
Dam maintenance activities that do cause additional		X	
buffer disturbance beyond the footprint of the existing			
dam or those not covered under the U.S. Army Corps			
of Engineers Nationwide Permit No.3			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2) of this Ordinance.

Use	Exempt *	Allowable	Allowable with Mitigation*
Drainage ditches, roadside ditches and stormwater			
conveyances through riparian buffers:			
New stormwater flows to existing drainage ditches,	X		
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		X	
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		X	
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			X
conveyances applicable to linear projects that do not			
provide a stormwater management facility due to			
topography constraints provided that other practicable			
BMPs are employed.			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2) of this Ordinance.

Use	Exempt *	Allowable	Allowable with Mitigation*
Driveway crossings of streams and other surface waters			
subject to this Ordinance:			
Driveway crossings on single family residential lots	X		
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		X	
that disturb greater than 25 linear feet or 2,500 square			
feet of riparian buffer			
In a subdivision that cumulatively disturb equal to or		X	
less than 150 linear feet or one-third of an acre of			
riparian buffer			
In a subdivision that cumulatively disturb greater than			X
150 linear feet or one-third of an acre of riparian buffer			
Driveway impacts other than crossing of a stream or			X
other surface waters subject to this Ordinance			
Fences:			
Fences provided that disturbance is minimized and	X		
installation does not result in removal of trees as			
defined in this Ordinance			
Fences provided that disturbance is minimized and		X	
installation results in removal of trees as defined in this			
Ordinance			
Fertilizer application: one-time application to establish	X		
vegetation			
Grading and revegetation in Zone Two provided that	X		
diffuse flow and the health of existing vegetation in Zone			
One is not compromised and disturbed areas are			
stabilized until they are revegetated.			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2) of this Ordinance.

Use	Exempt *	Allowable	Allowable with Mitigation*
Greenway / hiking trails designed, constructed and		X	
maintained to maximize nutrient removal and erosion			
protection, minimize adverse effects on aquatic life and			
habitat, and protect water quality to the maximum extent			
practical.			
Historic preservation	X		
Maintenance access on modified natural streams: a		X	
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.			
Mining activities:			
Mining activities that are covered by the Mining Act		X	
provided that new riparian buffers that meet the			
requirements of Section 204(A) and 204 (C) of this			
Ordinance are established adjacent to the relocated			
channels			
Mining activities that are not covered by the Mining			X
Act OR where new riparian buffers that meet the			
requirements of Section 204(A) and 204 (C) of this			
Ordinance are not established adjacent to the relocated			
channels			
Wastewater or mining dewatering wells with approved	X		
NPDES permit			
Playground equipment:			
Playground equipment on single family lots provided	X		
that installation and use does not result in removal of			
vegetation			
Playground equipment installed on lands other than		X	
single-family lots or that requires removal of			
vegetation			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2).

Use	Exempt *	Allowable	Allowable with Mitigation*
Ponds created by impounding streams and not used as			
stormwater BMPs:			
New ponds provided that a riparian buffer that meets		X	
the requirements of Section 204(A) and 204 (C) of this			
Ordinance is established adjacent to the pond			
New ponds where a riparian buffer that meets the			X
requirements of Section 204(A) and 204 (C) of this			
Ordinance is NOT established adjacent to the pond			
Protection of existing structures, facilities and stream		X	
banks when this requires additional disturbance of the			
riparian buffer or the stream channel			
Railroad impacts other than crossings of streams and			X
other surface waters subject to this Ordinance.			
Railroad crossings of streams and other surface waters			
subject to this Ordinance:			
Railroad crossings that impact equal to or less than 40	X		
linear feet of riparian buffer			
Railroad crossings that impact greater than 40 linear		X	
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			X
feet or one-third of an acre of riparian buffer			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2).

Use	Exempt *	Allowable	Allowable with Mitigation*
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		X	
feet per lot.			
o Total footprint greater than 150 square feet per lot.			X
Wooden slatted decks and associated steps, provided			
the use meets the requirements of Section 204(A) and			
204 (C) of this Ordinance:			
 Deck at least eight feet in height and no 		X	
vegetation removed from Zone One.			
 Deck less than eight feet in height or vegetation 			X
removed from Zone One.			
Removal of previous fill or debris provided that diffuse	X		
flow is maintained and vegetation is restored			
Road impacts other than crossings of streams and other			X
surface waters subject to this Ordinance			
Road crossings of streams and other surface waters			
subject to this Ordinance:			
Road crossings that impact equal to or less than 40	X		
linear feet of riparian buffer			
Road crossings that impact greater than 40 linear feet		X	
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
or one-third of an acre of riparian buffer			

^{*}To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2).

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Use	Exempt *	Allowable	Allowable with Mitigation*
Road relocation: 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		X	
• Greater than 2,500 square feet of buffer impact			
			X
Stormwater BMPs:			
Wet detention, bioretention, and constructed wetlands		X	
in Zone Two if diffuse flow of discharge is provided			
into Zone One			
Wet detention, bioretention, and constructed wetlands			X
in Zone One			
Scientific studies and stream gauging	X		
Streambank or shoreline stabilization		X	
Temporary roads, provided that the disturbed area is			
restored to pre-construction topographic and hydrologic			
conditions immediately after construction is complete			
and replanted immediately with comparable vegetation,			
except that tree planting may occur during the dormant			
season. A one-time application of fertilizer may be used			
to establish vegetation:			
• Less than or equal to 2,500 square feet of buffer	X		
disturbance			
Greater than 2,500 square feet of buffer disturbance,	X		
not to exceed 5,000 square feet.			
Greater than 5,000 square feet of buffer disturbance		X	
Associated with culvert installation or bridge		X	
construction or replacement.			

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2) of this Ordinance.

Use	Exempt *	Allowable	Allowable with Mitigation*
Temporary sediment and erosion control devices, provided that the disturbed area is restored to preconstruction topographic and hydrologic conditions immediately after construction is complete and replanted			
immediately with comparable vegetation, except that tree planting may occur during the dormant A one-time application of fertilizer may be used to establish			
vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Section 204 (F)(7) of this Ordinance.			
In Zone Two provided ground cover is established within timeframes required by the Sedimentation and Erosion Control Act, vegetation in Zone One is not compromised, and runoff is released as diffuse flow in	X		
 accordance with Section 204 (C) of this Ordinance. In Zones one and two to control impacts associated with uses approved by County or that have received a variance, provided that sediment and erosion control 		X	
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	X		
authorized under Sections 401 and 404 of the Federal Water Pollution Control Act. • In-stream temporary erosion and sediment control		X	
measures for work within a stream channel. Utility, electric, aerial, perpendicular crossings of streams and other surface waters subject to this Ordinance ^{2,3,5} :			
 Disturb equal to or less than 150 linear feet of riparian buffer Disturb greater than 150 linear feet of riparian buffer 	X	X	

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2).

Use	Exempt *	Allowable	Allowable with Mitigation*
Utility, electric, aerial, other than perpendicular crossings ⁵ :			
 Impacts in Zone Two Impacts in Zone One^{2,3} 		X	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 :			
 Impacts in Zone Two Impacts in Zone One¹ 	X X		
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Ordinance ^{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		X	
width • Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a			X
maintenance corridor greater than 10 feet in width Disturb greater than 150 linear feet of riparian buffer			X

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2).

Use	Exempt *	Allowable	Allowable with Mitigation*
Utility, non-electric, other than perpendicular crossings ^{4.5} :			
 Impacts in Zone Two Impacts in Zone One¹ 		X	X
Vegetation management:			
Emergency fire control measures provided that	X		
topography is restored			
Mowing or harvesting of plant products in Zone Two	X		
Planting vegetation to enhance the riparian buffer	X		
Pruning forest vegetation provided that the health and	X		
function of the forest vegetation is not compromised			
Removal of individual trees that are in danger of	X		
causing damage to dwellings, other structures or			
human life, or are imminently endangering stability of			
the streambank.			
Removal of individual trees which are dead, diseased	X		
or damaged.			
Removal of poison ivy	X		
Removal of invasive exotic vegetation as defined in:	X		
Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept.			
of Environment and Natural Resources. Division of Parks			
and Recreation. Raleigh, NC. Guideline #30			
Vehicular access roads leading to water-dependent		X	
structures as defined in 15A NCAC 02B .0202,			
provided they do not cross the surface water and have			
minimum practicable width not exceeding ten feet.			
Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers.		X	

^{*} To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Section 204(D)(2).

Use	Exempt *	Allowable	Allowable with Mitigation*
Water supply reservoirs:			
New reservoirs where a riparian buffer that meets the		X	
requirements of Section 204(A) and 204 (C) of this			
Ordinance is established adjacent to the reservoir			
New reservoirs where a riparian buffer that meets the			X
requirements of Section 204(A) and 204 (C) of this			
Ordinance is not established adjacent to the reservoir			
Water wells			
Single family residential water wells	X		
All other water wells		X	
Wetland, stream and buffer restoration that results in			
impacts to the riparian buffers:			
Wetland, stream and buffer restoration that requires NC	X		
Division of Water Quality approval for the use of a 401			
Water Quality Certification			
Wetland, stream and buffer restoration that does not		X	
require Division of Water Quality approval for the use			
of a 401 Water Quality Certification			
Wildlife passage structures		X	

¹Provided that:

- No heavy equipment is used in Zone One.
- Vegetation in undisturbed portions of the buffer is not compromised.
- Felled trees are removed by chain.
- No permanent felling of trees occurs in protected buffers or streams.
- Stumps are removed only by grinding.
- At the completion of the project the disturbed area is stabilized with native vegetation.
- Zones one and two meet the requirements of Sections 204.

²Provided that, in Zone One, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternative evaluation by Alamance County, as defined in Section 204

- 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.

³Provided that poles or aerial infrastructure shall not be installed within 10 feet of a water body unless County completes a no practical alternative evaluation as defined in Section 204.

⁴Provided that, in Zone One, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by Alamance County, as defined in Section 204.

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

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