

Fiscal Impacts of Proposed Rules 15A NCAC 02B .0290-0294 Protection and Maintenance of Existing Riparian Buffers:

Name of Commission: Environmental Management Commission

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**Impact Summary:**

State government:	Yes
Local government:	Yes
Private Industry:	Yes
Substantial impact:	No
Federal government:	No
Small Business:	Yes
NCDOT	No

**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.

**Necessity:** In accordance with Executive Order 70 these rules will serve the public interest such that: they do not impose undue burden on those who must comply with the rules; are clearly written, relevant and up-to-date; and are designed to achieve the regulatory objective in a cost-effective manner.

### **I. Summary**

The proposed rules changes will consolidate four existing riparian buffer rules, NCAC 15A 02B .0233 (Neuse), 02B .0259 (Tar-Pamlico), 02B .0250 (Randleman) and 02B .0267 (Jordan), into one set of buffer protection rules. The existing buffers rules have become effective at various times throughout the last 11 years. The riparian buffer programs in the various basins and watersheds are slightly different and having one set of buffer rules would be easier to understand, easier to administer, and more flexible to the regulated community, while providing an equivalent level of water quality protection. The implementation of the consolidated buffer rules will be implemented by the same local government and State agency staff that are now implementing the existing buffer rules. Because the consolidation will provide a greater level of flexibility to the regulated community, DENR anticipates that this rulemaking action will have an overall positive

economic impact for the regulated parties/landowners and a minor implementation cost for local governments and the state.

## **II. Purpose of Rules**

The purpose of the proposed rulemaking is to consolidate the existing riparian buffer rules into one set of rules that will be consistent, provide more flexibility in some instances, and be easier for local governments and the regulated community to understand. The majority of the proposed rules contain language that exists in either one or all of the current buffer rules. The proposed rule changes will maintain the current level of environmental protection.

### **15A NCAC 02B .0290, Protection and Maintenance of Existing Riparian Buffers: Purpose, Applicability, Jurisdiction and Exemptions**

- The proposed rule would apply to activities located outside of a buffer but that have hydrologic impacts to the buffer. This requirement has been applied in all the buffered basins but was never explicitly stated in any of the rules until the Jordan Buffer Rule. Diffuse flow<sup>1</sup> is a requirement in all the current buffer rules. In the buffered basins if concentrated stormwater runoff enters Zone 2, it is considered a violation of the rules. This additional language listed in 2B .0290 (3)(a) would explicitly state that activities outside the buffer could not cause hydrologic impacts to the protected riparian buffers.
- A reference to published manuscript of the soil survey maps as prepared by the Natural Resources Conservation Service (NRCS) was added to the rule. This may reduce confusion as to what type of soil maps are acceptable for determining if a stream is subject to this rule ((3)(c)(i)). This reference is based on a DWQ court case and subsequent clarification from the Environmental Management Commission on how the soil survey maps would be interpreted in all buffered basins. This will not change how affected parties are now interpreting the soil survey maps.
- Added reference to other maps approved by the Geographic Information Coordinating Council as more accurate as stated in S.L. 2009-484 ((3)(c)).
- Clarified which silvicultural activity would be deemed existing and ongoing in ((5)c). This change was suggested by a stakeholder and is supported by the Division of Forest Resources.

### **15A NCAC 02B .0291, Protection and Maintenance of Existing Riparian Buffers: Definitions**

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<sup>1</sup> Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

Changes separate the definitions into a separate rule instead of being an item in the existing rules. The rule will define all terms the same in all the basins and incorporate information from clarifications memos.

### **15A NCAC 02B .0292, Protection and Maintenance of Existing Riparian Buffers: Management Strategy**

- Addition of “buffer bubble” to measurement of Zone 1. This is already in policy and DENR is adding this text to the rule for clarification ((1)(a)(i)).
- Updating Table of Uses
  - Addition to the Table of Uses of single family properties Neuse and Tar-Pamlico basin in the coastal counties platted before August 1, 2000. Option 1 is the same as the Coastal General Major Variance that expired on April 11, 2011. Option 2 is less stringent than the Coastal General Major Variance that expired on April 11, 2011.
  - Greenway trails now requires mitigation for widths that exceed 10 feet
  - Updated the fences use to include fences that do result in the removal of trees as “allowable” instead of prohibited
  - Added a “Pedestrian Access Trails” for water dependent structures use to the table. Authorizations and mitigation are required depending on the substrate and width
  - “Recreational and accessory structures” use incorporates a DWQ clarification memo on decks. Does not change the way permits were issued as of the date of the clarification memo (December 7, 2007).
  - Utility, non-electric other than perpendicular crossings” is based on a DWQ clarification memo dated February 3, 2011 and associated stakeholder input. This use makes it clearer as to when buffer mitigation is required for Zone 1 impacts with this use. Option 1 would require an authorization for maintenance that has not been done for greater than 10 years. Option 2 would not require an authorization regardless of maintenance timetable.
- Variances 0292(6)
  - Added in a provision for General Major Variances (GMV). This would allow certain unforeseen circumstances that would require a large number of Major Variances to be heard before the Environmental Management Commission to be delegated to the Division level. Option 1 does not have the GMV language and Option 2 does.
  - Option 1 deletes the existing language that the applicant had to purchase the property prior to the effective date of the buffer rule. Option 2 keeps that language in, except for the Randleman watershed.<sup>2</sup>

<sup>2</sup> The Randleman Lake watershed was exempted due to the fact that the Randleman rules have a “kick in” clause for streams. Less predictability for homebuyers in the Randleman watershed due to this clause, so the hearing officers for the revised Randleman Rule wanted this language in Option 2.

### **15A NCAC 02B .0293, Protection and Maintenance of Existing Riparian Buffers: Requirements Specific to Forest Harvesting**

The changes are separating the requirements specific to forest harvesting into a separate rule instead of being an item in the existing rules. Other revisions include formatting and reference changes in the rule.

### **15A NCAC 02B .0294, Protection and Maintenance of Existing Riparian Buffers: Rule Implementation in Water Supply Watershed**

The changes move requirements specific to rule implementation in water supply watershed into a separate rule instead of being an item in the existing rules. Other changes include formatting and reference changes in the rule. This rule would only be applied in the Jordan and Randleman watersheds because they are both water supply reservoirs.

### **III. Costs**

For the following rules:

- 15A NCAC 02B .0290, Protection and Maintenance of Existing Riparian Buffers: Purpose, Applicability, Jurisdiction and Exemptions;
- 15A NCAC 02B .0291, Protection and Maintenance of Existing Riparian Buffers: Definitions;
- 15A NCAC 02B .0293, Protection and Maintenance of Existing Riparian Buffers: Requirements Specific to Forest Harvesting; and
- 15A NCAC 02B .0294, Protection and Maintenance of Existing Riparian Buffers: Rule Implementation in Water Supply Watershed

The Division of Water Quality anticipates that these proposed changes will not cause any cost to regulated parties. The proposed rules provide clarification of existing policies and regulations and there is no additional cost to implement or comply with these rules. The changes could potentially provide benefits (see benefit section). The table below presents a potential affected parties and expected costs for these rules.

<b>Potential Affected Parties</b>	<b>Estimated Cost</b>
Local Governments	One time cost to update ordinance
State Government	One time cost to update model ordinance
Federal Government	None
Private Industry	None

One-time costs for local governments would be the cost to update their buffer ordinance to incorporate these rules. Additionally, DWQ would also incur a one time cost to revise the Randleman and Jordan Model Ordinances. Both of these costs are estimated below.

#### **Local Government Cost**

Due to the proposed changes there will be a one-time cost associated with local governments having to update their ordinances. There are a total of 29 municipalities administering the riparian buffer rules that are being consolidated. These are listed in the table below.

<b>Municipality</b>		
Alamance	Greensboro	Reidsville
Apex	Gibsonville	Sedalia*
Archdale	Haw River	Stokesdale*
Burlington	High Point	Summerfield
Carrboro	Jamestown	Whitsett*
Cary	Kernersville	Winston-Salem
Chapel Hill	Mebane	Oak Ridge*
Durham	Pittsboro	Trinity
Graham	Pleasant Garden*	Reidsville
Green Level	Randleman	

\*Programs implemented by Guilford County through local agreement

Five of the municipalities have an intra-government agreement with Guilford County that allows Guilford County to implement the rules in those municipalities. There would be no cost for those five municipalities to update their ordinances. So, the total number of municipalities required to update their ordinances would be 24.

In addition to the municipalities, there are 11 counties that also administer the riparian buffer rules. These are listed in the table below.

<b>Counties</b>	
Alamance	Orange
Caswell	Pitt
Chatham	Randolph
Durham	Rockingham
Forsyth	Wake
Guilford	

The total number of municipalities and counties that would be required to update their ordinances would be 35.

The estimated cost to update ordinances would be between four to six thousand dollars. This estimate is based on conversations with local governments who used private consultants to write their ordinance. It is believed that not all local governments would use consultants and the cost could be lower if the government itself updated the ordinance. DENR estimates that local governments would expend \$2,000 in resources

and staff time to update the ordinances without using a consultant. The table below presents the range of the total estimated one-time cost.

Number of Local Governments	Cost of Consultant to Update Ordinance		Cost for Local Government to Update Ordinance	Total Estimated One-time Costs	
	\$4,000	\$6,000		\$70,000	\$210,000
35	\$4,000	\$6,000	\$2,000	\$70,000	\$210,000

### **15A NCAC 02B .0292, Protection and Maintenance of Existing Riparian Buffers: Management Strategy**

#### **Variations**

A variance is required for any activity that is prohibited in the table of uses. There are two types of variations, major and minor. Minor variations are for impacts to Zone 2 of the buffer only. Approvals for minor variations may be granted by DWQ or the delegated/designated local government. Major variations are for impacts to Zone 1 and 2 of the buffer. Approvals for major variations may only be granted by the Environmental Management Commission (EMC).

During the variance process all requirements listed in Item (6) must be met. The proposed rules that have been approved to proceed to public hearing have two options listed in the variance procedure.

Option 1 would delete the requirement that the applicant did not purchase the property after the effective date of the rules. Currently, in all of the rules (except for Randleman) a person seeking a variance must have purchased the property before the effective date of the rule to qualify for the variance. The removal of this requirement would allow for more people to qualify for a variance and would be considered a benefit to the public. However, this could potentially increase the number of variance applications that local governments and the state review and make a finding of facts. The Water Quality Committee of the EMC could also potentially hear more major variations with this requirement removed.

There are at least 27 counties that are either completely or partially located in the basins where the rules are being consolidated. It is methodologically challenging to determine the number of properties that are undeveloped and are currently owned by someone other than the person owning the property before the effective date of these rules to determine the potential number of properties that might now be able to qualify for a variance. Therefore, this cost estimate makes no attempt to do so.

If Option 1 is adopted there will be potentially more properties that could meet all the requirements of the variance process. This potential increase in variance applications would increase the workload for both the state and local governments. However, it is not

believed that the potential increase of variances would require additional staffing to meet the potential demand.

Option 2 would keep the requirement of purchasing the property before the effective date of the rules and would not incur any additional costs to the state or local governments.

Variance Additions to the Buffer Rules in 0292	Option 1-Remove purchased prior to the effective date hardship	Option 2-Keep in purchased prior to the effective date hardship
Costs to Local Gov't	Application review cost of \$34.60 per variance(\$17.30 hr x 2 hrs per project)x 159 projects issued x 4 estimated increase in projects = -\$22,006	No increase in costs and no benefits in savings (Now the cost is \$17.30 x 2 x 159=\$5,501
Costs to DWQ	Application review cost of \$41 per variance (\$20.59 x 2 hrs per project) x 159 projects issued x 4 estimated increase in projects =-\$26,076	No increase in costs and no benefits in savings. (Now the cost is \$20.59 x 2 x 159=\$6,547
Costs to Regulated Community	More qualify for variances and this increases the use value of the property \$360 (per project)	\$360 per project
NCDOT	None	None
Federal Government	None	None

Estimated costs above for the removal and inclusion of the effective date hardship are based on an average DWQ Environmental Senior Specialist salary (per hour) or the average local government technician salary multiplied by the estimated time to review a variance project. The estimated number of projects is based on a DWQ database search for variance applications issued in the past five years. The number of approved minor variances equaled 148. The numbers of major variances issued by DWQ in the past five years equaled 11. It is expected that if the effective date hardship is removed from the rules that the numbers of variance applications will increase 4 times.

The regulated community generally needs to hire a consultant to prepare the variance application package. The median cost for a consultant to prepare the variance applications is \$90 an hour. An estimate of time to prepare the application and appear before the Environmental Management Commission would be four hours for a total fee of \$360.

#### General Major Variances

Currently, in the buffer rules there is no general major variance (GMV). A general major variance would be used for specific activities that are widespread throughout a watershed or common situations in particular locations in the watershed that are not described in the Table of Uses. A general major variance would allow the EMC and the division to be adaptive to any unforeseen situations that might arise in the future.

With the option of the GMV in the rules, the variance process would require less time for applications to be reviewed due to the fact that the applications could be reviewed on a DWQ or local government level and the applicant would not be required to be brought before EMC. The option of having a GMV in the rules would require review time for local governments and DWQ. This option also would save the DWQ money because less time would be needed to prepare for EMC meetings. The regulated community also would benefit financially if they are not required to travel to Raleigh to present their case before the EMC.

The table below presents the potential costs and benefits to the different affected parties for the different variance options listed above (remove purchased prior to effective date, and GMV). As shown in the table, these options could generate costs for review for both local governments and DWQ. However, these changes to the rules could also provide benefits to the regulated community. It is challenging to estimate an exact cost since it is the exact number of potentially affected properties is unknown.

General Major Variances at this time are not issued by the Local Governments, so no increase in cost is expected for the local governments. Estimated costs above for the General Major Variance removal and inclusion are based on an average DWQ Environmental Senior Specialist salary (per hour) multiplied by the estimated time to review a variance project. The estimated number of projects is based on a DWQ database search for variance applications issued in the past five years. The number of approved General Major Variances equaled 62. This means DWQ issues 12 General Major Variances in an average year.

Variance Additions to the Buffer Rules in 0292	General Major Variance (in)	General Major Variance (out)
Costs to Local Gov't	None. Locals do not issue GMVs at this time	None (How business is done now)
Costs to DWQ	Annual Application review costs for General Major Variances $\$20.59 \times 2 \times 12 = \$494$	None (How business is done now)
Benefits to Regulated Community	Save $\$360$ (per project) $\$4,320$	Costs time to go to the EMC= $\$360$ (per project)

NC DOT	None	None
Federal Government	None	None

### **Additions to Table of Uses**

#### **Greenways**

The addition of the mitigation requirement for greenway trails will not change the workload on the delegated/designated local governments or DWQ. It would require the regulated community to pay a mitigation costs for the buffer impacts that was not required previously. Greenway trails should not change due to the fact that there are no variances for the greenway uses database search for the past five years. In the buffer rules at this time, greenways are allowable and DWQ or the local government will issue the authorization if the trail is 10 feet or less and meets avoidance or minimization of impacts to the buffers. The consolidated rule allows for greenways of 10 feet or less without mitigation, so it essentially no different than the current rule in that if the greenway was over 10 feet in width, mitigation would have been required for the variance.

#### **Fences**

By changing fences as allowable in the rules whereas it was prohibited before, the review time by the delegated/designated local governments and DWQ would increase with associated applications. The regulated community's time would be used for filling out and submitting an application. However, the regulated community could also see a cost savings because this use no longer requires a variance and associated mitigation; it only requires an application. Currently, no fence projects were applied for in the past five years. They are exempt in the current buffer rules if no trees were removed and allowable if trees were removed. The consolidated rules do not change this. It just adds in an exemption for agricultural fences regardless of tree removal.

#### **Pedestrian access trails**

The regulated community may have to pay mitigation, depending on their impacts, when they previously did not have to. This use was previously permitted under a "greenway/hiking trail" use in the buffer rules, which is allowable and did require an authorization. So the regulated community's time for applying will not increase and DWQ and the designated/delegated local government's workload or review time would not increase.

#### **Recreational structures**

The recreational structures does not change how DWQ, the designated/delegated community has permitted these since 2007 and does not change how the regulated community has had to apply the rules since 2007, so there is no cost or savings associated with this use.

#### **Utility, non-electrical, other than perpendicular crossings**

Utility, non-electrical, other than perpendicular crossings of streams use is based on a

DWQ clarification memo dated February 3, 2011 and associated stakeholder input. This use makes it clearer as to when buffer mitigation is required for Zone 1 impacts with this use. Prior to the DWQ clarification memo, mitigation was required for Zone 1 impacts associated with this use due to the ambiguity of what was considered an “existing use” and therefore exempt from the buffer rules.

The potential cost associated with the proposed changes in this rule includes the following listed in the table below.

Table of Uses Additions (0292)	Greenway Trail Mitigation	Fences as allowable	Pedestrian Access Trails	Recreational Structures	Utility, non-elec, other than perpendicular
Costs to Local Gov't	None	Review time(\$17.30 hr X 2 hrs per project)	None	None	Cost savings. Less mitigation
Cost to DWQ	None	Review time(\$20.59 hr X 2 hrs per project)	None	None	None
Cost to Regulated Community	Mitigation costs they may accrue. Cost savings by not going before the EMC of \$360	Time to fill out application. Saves applicants \$ if it's for an agricultural use	Mitigation costs they may accrue	None	Cost savings. Less mitigation

The estimated review time and estimated cost associated with review of these proposed changes is the same as listed in the review of variances.

### III. Benefits

#### **15A NCAC 02B .0290, Protection and Maintenance of Existing Riparian Buffers: Purpose, Applicability, Jurisdiction and Exemptions**

Quantifiable benefits could not be determined due to the nature of the proposed rule. Qualitative benefits would be that there is only one rule for four existing rules, providing an ease of use to both the regulated parties and regulators. In most instances, regardless of which of the four basins (Neuse, Tar-Pamlico, Jordan and Randleman) the buffer rules would be implemented the same. Therefore the buffer rules would be more unilateral and consistent across basins.

**15A NCAC 02B .0291, Protection and Maintenance of Existing Riparian Buffers: Definitions**

Quantifiable benefits could not be determined, but there would be qualitative benefits with this proposed rule. All of the consolidated rules would have the same definitions, helping to ensure that all of the rules are implemented the same. For example, currently in the Neuse and Tar-Pamlico buffer rules a tree is defined as a woody plant with a diameter breast height (DBH) equal to or exceeding five inches. While in the Jordan and Randleman, a tree is defined as a woody plant with a DBH equal to or exceeding five inches or a stump diameter equal to or exceeding six inches. After consolidation, a tree would be defined the same, ensuring a consistency among the different basins.

**15A NCAC 02B .0292, Protection and Maintenance of Existing Riparian Buffers: Management Strategy**

The benefits for proposed rule 2B .0292 includes cost savings for the regulated community, decrease in government expenditures, and an equal value placed on protection of the environment.

**Single Family Properties (≤2 acres) in CAMA counties- per SL 2011-394**

The proposed rules contain new uses for single family properties less than or equal to two acres in the Neuse and Tar-Pamlico river basin in one of the twenty coastal counties as defined by the Coastal Management Act (CAMA) that was platted and recorded before August 1, 2000. This would allow property owners to potentially impact the buffers for development of their property. Currently, such impacts would have to go through the variance procedure, either a major or minor depending on if there were Zone 1 or Zone 2 impacts.

An analysis was performed to determine the number of potential properties that would benefit from this addition to the table of uses. There are five (5) coastal counties that are either in or partially in the Neuse or Tar-Pamlico basin.

CAMA Buffered Counties
Beaufort
Craven
Hyde
Carteret
Pamlico

The counties were analyzed to estimate the number of single family properties that were undeveloped and platted before August 1, 2000 and were adjacent to waters subject to the rules. Staff used available GIS data to estimate the number of properties that fit the criteria listed above. DENR was unable to obtain parcel data for Hyde County. This

research indicates that there are at least 711 properties in these counties that could potentially benefit from addition of this use to the Table of Uses.

County	Beaufort	Carteret	Pamlico	Craven	Hyde	Total
Lots ≤ 2 acres	250	58	273	130	unknown	711

The costs would be to DWQ to review the increased number of applications. With a very rough estimate of 711 properties affected, the cost could be 711 X 41.18= \$29,279.

The potential monetary benefit for these property owners is not easy to assess. Since land owners would be able to do more development on their properties, these parcels would be worth more since the new use would potentially allow for impacts to the buffer. Either option, if adopted would offer cost savings to landowners since they would not be required to go through the variance process.

Table of Uses- Platted Properties	Coastal Properties Platted
Local Gov't Cost	None
DWQ Cost	Review time(\$20.59 hr X 2 hrs per project)
NC DOT Cost	None
Federal Cost	None
Regulated Community Cost	Save \$360(per project)

It is estimated that the savings to the regulated community would be \$360 per project. This estimate is based on the median cost for a consultant to prepare a variance application. Based on the estimated number (711) of coastal properties that would potentially benefit from the change and the estimated cost per project (\$360) it is estimated that the potential savings to the regulated community would be \$255,960.

**Utility, non-electric, other than perpendicular crossings**

This use has been revised to allow for categories within the use. The new categories allow for distinguishing between impacts within existing utility corridors, new impacts and maintaining corridors. There are two options that are going to public hearing.

Option 1 has a requirement if maintenance does not occur at least every ten years then the activity would be potentially allowable instead of exempt. Option 2 does not have the maintenance requirement having to occur within ten years.

Either option would provide cost savings to municipalities that are responsible for maintaining and repairing sewer lines that are within the buffer and run parallel to waters subject to the rule. This use would give these parties more flexibility in fulfilling requirements for sewer permits and help prevent sewer overflows.

Monetizing the benefit of the new categories in this use is difficult at best. It is unknown how many utility lines would benefit from allowing mowing and maintenance activities within existing corridors to become exempt. Mitigation would only be required for impacts that occur in Zone 1 that is outside the existing corridor. Again, this would be a cost savings but determining a monetary value is impossible.

### Greenways

Instead of having to pursue a variance for greenway trails that are in excess of 10 feet in width, the regulated community could apply for an authorization with mitigation. This would include the cost of mitigation but could also be a cost savings to the regulated community by not having to get on the EMC agenda for the variance.

### General Major Variance

A GMV would potentially offer cost savings to both the regulated community and state and local government by avoiding the variance process. If multiple variances occur for specific activities then instead of processing each one individually it would be more cost effective to issue a GMV that covers these variance requests.

The table below summarizes the potential savings associated with the proposed changes to Rule .0292.

Rule. 0292 item	Coastal Properties Platted (opt 1)	Coastal Properties Platted (opt 2)	Utility non-perpendicular (opt 1)	Utility non-perpendicular (opt 2)	Greenways	GMV (in)	GMV (out)
Local Gov't Cost	None	None	None	None	None	Save \$360(per project)	None
DWQ Cost	None	None	None	None	None	Save \$360(per project)	None
NC DOT Cost	None	None	None	None	None	Save \$360	None
Federal Cost	None	None	None	None	None	None	None
Regulated	Save \$360(per	Save	Cost	Cost	None	Save	None

Community Cost	project)	\$360(per project)	savings-less mitigation required	savings-less mitigation required		\$360(per project)	
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