

## North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue Governor Division of Water Quality Coleen H. Sullins Director

Dee Freeman Secretary

September 20, 2010 Buffer Interpretation/Clarification #2010-001

## MEMORANDUM

Background: In accordance with protected riparian buffer rules (which currently include the Neuse River Buffer Rule 15A NCAC 02B .0242, Catawba River Buffer Rule 15A NCAC 02B .0244, Tar-Pamlico River Buffer Rule 15A NCAC 02B .0260, Jordan Lake Buffer Rule 15A NCAC 02B .0267, and the Goose Creek Buffer Rule 15A NCAC 02B .0607), mitigation may be required for activities labeled in the Table of Uses as "allowable with mitigation" or through conditions of approval for an approved variance. The rule states that any wetlands located within Zone 1 or Zone 2 of the buffer where the proposed activities are to occur shall be mitigated for in accordance with 15A NCAC 02H .0506.

<u>Problem:</u> In cases where wetlands are located within (either wholly or partially) a protected riparian buffer zone, it is unclear how to calculate the required buffer mitigation with regards to the wetlands.

<u>Solution</u>: Wetlands included within the protected riparian buffer zones shall be included when considering impacts to the protected riparian buffer zones and when determining whether buffer mitigation is required. However, if buffer mitigation is required, wetlands will be subtracted out of the impacts to the protected riparian buffer zones *before* determining the amount of mitigation. For example:

Zone 1 Impact (ft²)	minus Wetlands in Zone 1 (ft²)	= Zone 1 Buffers (not wetlands) (ft²)	Zone 1 Buffer Mitigation Required (ft²) (using 3:1 ratio)	Zone 2 Impact (ft²)	minus Wetlands in Zone 2 (ft²)	= Zone 2 Buffers (not wetlands) (ft²)	Zone 2 Buffer Mitigation Required (ft²) (using 1.5:1 ratio)	Total Amount of Mitigation Required (ft²)
30,000	10,000	20,000	60,000	20,000	5,000	15,000	22,500	82,500

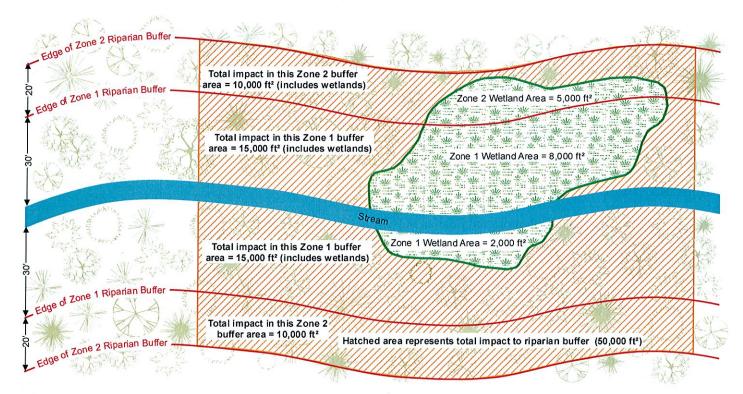
In the example above, and as depicted in Figure 1, there is a total of 50,000 ft² of buffer (Zone 1 has 30,000 ft² and Zone 2 has 20,000 ft²) that will be impacted. In Zone 1 there is 10,000 ft² of wetlands, leaving 20,000 ft² of actual buffer to be mitigated for (at a 3:1 ratio, 60,000 ft² of buffer mitigation would be required). In Zone 2 there is 5,000 ft² of wetlands, leaving 15,000 ft² of actual buffer that will need to be mitigated (at 1.5:1, 22,500 ft² of mitigation would be required). Thus, of the 50,000 ft² of impacts, 35,000 ft² requires buffer mitigation.

It should be noted that the amount of wetlands subtracted (15,000 ft² in the example above) from buffered areas should be included in the Wetland Impacts Table of the Pre-Construction Notification (PCN) or application Impacts Summary Sheet. Wetland mitigation for a given project will be determined based on the Wetland Impacts Table or Impact Summary Sheet included in the PCN or application.

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## Figure 1

Total area of impact to the riparian buffer area is  $50,000 \text{ ft}^2$ , which includes  $30,000 \text{ ft}^2$  in Zone 1 and  $20,000 \text{ ft}^2$  in Zone 2. Of the  $30,000 \text{ ft}^2$  of impacts in Zone 1,  $10,000 \text{ ft}^2$  are to wetlands located within both areas of Zone 1. In Zone 2 there is a total of  $20,000 \text{ ft}^2$  of impacts, of which  $5,000 \text{ ft}^2$  are to wetlands located within Zone 2. For purposes of mitigation, wetlands located within the area of impact are subtracted out from the total buffer impact. Therefore, the total impact to the riparian buffer is  $50,000 \text{ ft}^2$ ; the mitigable impacts are  $20,000 \text{ ft}^2$  in Zone 1 and  $15,000 \text{ ft}^2$  in Zone 2 (a total of  $35,000 \text{ ft}^2$ ). A total of  $15,000 \text{ ft}^2$  of mitigation for impacts to wetlands would also be required if the mitigation threshold as specified in the DWQ's rules is met.