



North Carolina Department of Environment and Natural Resources


Pat McCrory  
Governor

Donald R. van der Vaart  
Secretary

May 18, 2015

MEMORANDUM

To: James Stanfill, Asset Manager, Division of Mitigation Services

From: Jeff Poupart, Water Quality Permitting Section Chief, Division of Water Resources 

Subject: DWR response to EEP request regarding Nutrient Offset Planting Requirements

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On April 23, 2015, DWR received a request from DMS to allow for nutrient offset mitigation projects to have a planting success criterion of 260 stems per acre. (see attached memo)

**Response:** DWR will approve nutrient offset mitigation projects with a planting success criterion of 260 stems per acre.



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

Michael Ellison, Director  
Division of Mitigation Services

Donald R. van der Vaart  
Secretary

**TO:** JEFF POUPART, DIVISION OF WATER RESOURCES  
**CC:** KAREN HIGGINS, DIVISION OF WATER RESOURCES  
**FROM:** JAMES STANFILL, ASSET MANAGER, DIVISION OF MITIGATION SERVICES  
**SUBJECT:** NUTRIENT OFFSET PLANTING REQUIREMENTS  
**DATE:** 4/23/2015  
**CC:** MICHAEL ELLISON, DMS DIRECTOR

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The Division of Mitigation Services (DMS) appreciates the opportunity to comment on the planting success requirements for riparian buffer restoration and enhancement projects that are being utilized as Nutrient Offset Mitigation. DMS attended the March 31, 2015 Nutrient Offset & Riparian Buffer Mitigation Provider Informational meeting. During the meeting the Division of Water Resources (DWR) staff stated that the planting success criterion for riparian buffer mitigation projects had been reduced to 260 stems per acre under 15A NCAC 02B .0295. DWR also stated that since .0295 was specific to riparian buffer mitigation, the planting success criterion for riparian buffer restoration projects being used for nutrient offset mitigation credit would remain unchanged at 320 stems per acre.

DMS disagrees with this position and offers the following information to support why DWR should establish the planting success criterion to 260 stems per acre for nutrient offset mitigation projects.

First, DMS agrees that 15A NCAC 02B .0295 does not apply to nutrient offset mitigation projects. DMS holds the position that 15A NCAC 02B .0295 is specific to riparian buffer *mitigation* rules and projects. Nutrient offset mitigation projects are regulated under 15A NCAC 02B .0240 which does not prescribe a planting success criterion of 320 stems per acre. Instead, 15A NCAC 02B .0240 specifies that the mitigation provider shall submit a proposal identifying the "calculations of the annual magnitudes of load reductions and identify final credit values incorporating any delivery factors."

The origin of the 320 stems per acre criterion was the riparian buffer mitigation rules, which DWR now has stated do not apply to nutrient mitigation projects. Therefore citing this per-acre stem count as a success criterion for nutrient offset projects is inappropriate and has no basis in rule.

Second, the nutrient credit yield formula for buffer restoration was based on a 260 stems per acre success standard. The original nutrient offset mitigation projects implemented early in the history of the program were comprised of two types: BMPs (e.g. stormwater wetlands) and riparian wetland restoration projects. The planting success criterion for riparian wetland restoration projects is 260 trees/stems per acre. The Ecosystem Enhancement Program introduced the idea of using riparian buffer restoration instead of riparian wetland restoration to provide nutrient offset credits. The current DWR-approved credit yield formula for buffer restoration is the same credit yield formula originally developed for riparian wetland restoration using a 260 stems per acre success standard. The 320 stems per acre standard was not utilized until after 2007

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when DWR started applying the riparian buffer rule standards to nutrient offset projects (about the time when mitigation banks were first allowed to generate nutrient offset credits).

Finally, a 260 stems per acre success criterion is consistent with the current federal performance standards for stream and wetland projects. It is also accepted as a stocking level in standard forest management practices.

Thank you for considering this information. We look forward to your response.