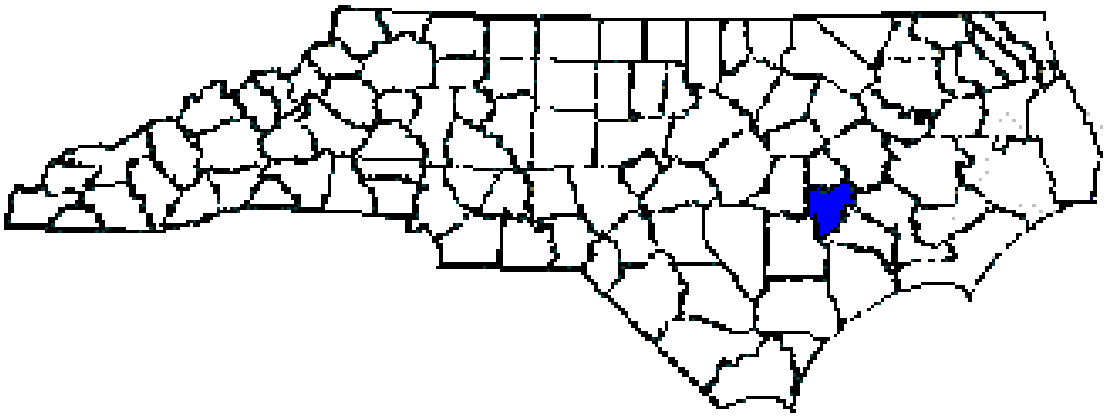
ANNUAL REPORT FOR 2013



Banks School Road Buffer Mitigation Site
Lenoir County
TIP No. R-2719A
COE Action ID: 200511238
DWQ Project #: 20050787

Prepared By:
Natural Environment Section & Roadside Environmental Unit
North Carolina Department of Transportation
July 2013

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SUMMARY

The following report summarizes the buffer monitoring activities conducted during 2013 at the Banks School Road Buffer Mitigation Site. This site, situated adjacent to the new US 70 Bypass near Kinston, was planted during January 2013 by the North Carolina Department of Transportation (NCDOT) in order to provide mitigation for buffer impacts associated with the construction of Transportation Improvement Program (TIP) number R-2719A. This report provides the monitoring results for the first formal year of monitoring (Year 2013). The site must demonstrate vegetation success for a minimum of five years or until the site is deemed successful.

There were two vegetation monitoring plots established throughout the buffer restoration area. The 2013 vegetation monitoring of the site revealed an average tree density of 580 trees per acre. This average is well above the minimum success criteria of 320 trees per acre for Year 1.

NCDOT will continue vegetation monitoring at the Banks School Road Buffer Mitigation Site in 2014.

1.0 INTRODUCTION

1.1 Project Description

The following report summarizes the buffer monitoring activities that have occurred during 2013 at the Banks School Road Mitigation Site. The site is located adjacent to new US 70 Bypass near Kinston (Figure 1). The site was constructed to provide mitigation for wetland impacts associated with (TIP number) R-2719A in Lenoir County. The 21.28 acre site provides the following types of mitigation: 0.68 acre of non-riverine wetland restoration, 2.1 acres of riparian buffer, 2.07 acres of wetland enhancement, 3.92 acres of jurisdictional wetland preservation and preservation of 13.01 acres of non-jurisdictional uplands.

1.2 Purpose

In order for a mitigation site to be considered successful, the site must meet vegetation success criteria. This report details the vegetation monitoring in 2013 at the Banks School Road Buffer Mitigation Site. Hydrologic monitoring was not required for the site.

1.3 Project History

January 2013	Buffer Restoration Area Planted
July 2013	Vegetation Monitoring (Year 1)

1.4 Debit Ledger

The entire Banks School Road Buffer mitigation site was used for the R-2719A project to compensate for unavoidable buffer impacts.

Figure 1. Site Location Map

2.0 VEGETATION: BANKS SCHOOL ROAD BUFFER MITIGATION SITE (YEAR 1 MONITORING)

2.1 Success Criteria

Buffer Success Criteria states that monitoring shall consist of visual review and photo evidence. An annual report shall be submitted to the DWQ for a period of five years showing monitoring results, survival rate/success of tree and vegetation establishment, and that diffuse flow through the riparian buffer has been maintained. The first annual report shall be submitted within one year of final planting. Failure to achieve a buffer density of 320 trees per acre after five years will require the annual report to provide appropriate remedial actions to be implemented and a schedule of implementation. Approval of the final annual report and a formal "close out" of the mitigation site by the DWQ is required.

2.2 Description of Species

The following tree species were planted in the Buffer Restoration Area:

Betula nigra, River Birch

Fraxinus pennsylvanica, Green Ash

Quercus lyrata, Overcup Oak

Quercus michauxii, Swamp Chestnut Oak

2.3 Results of Vegetation Monitoring

Plot #	River Birch	Green Ash	Overcup Oak	Swamp Chestnut Oak	Total (Year 1)	Total (at planting)	Density (Trees/Acre)
3	7	10	4	15	36	42	583
4	5	14	8	7	34	40	578
Average Density (Tree/Acre)							580

Site Notes: Other species noted onsite included fennel, goldenrod, sweetgum, broom sedge, red maple, pine, and various grasses.

2.4 Conclusions

There are a total of 2 vegetation monitoring plots established throughout the buffer restoration area. The 2013 vegetation monitoring of the site revealed an average tree density of 580 trees per acre. This average is well above the minimum success criteria of 320 trees per acre for the first year of monitoring. NCDOT proposes to continue monitoring vegetation at the Banks School Road Buffer Mitigation Site.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

The 2013 year represents the first year of monitoring activities that have occurred at the Banks School Road Buffer Mitigation Site. The site must demonstrate vegetation success for a minimum of five years or until the site is deemed successful.

There were two vegetation monitoring plots established throughout the 2.1 acre site. The 2013 vegetation monitoring of the site revealed an average density of 580 trees per acre.

NCDOT will continue vegetation monitoring at the Banks School Road Buffer Mitigation Site in 2014.

APPENDIX A

SITE PHOTOS, PHOTO LOCATIONS, AND PLOT LOCATIONS MAP

Banks School Rd. Buffer Mitigation Site

Photo Point #1 looking East at Vegetation Plot #3

Photo Point #1 looking South

Photo Point #2 looking West at Vegetation Plot #4

Photo Point #2 looking West at Vegetation Plot #4

July 2013

Banks School Rd. Buffer Mitigation Site