

ANNUAL REPORT FOR 2000



**Little McQueen Mitigation Site
Robeson County
Project No. 8.T461801
TIP No. R-2558**



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December 2000

TABLE OF CONTENTS

SUMMARY	2
1.0 Introduction	3
1.1 Project Description	3
1.2 Purpose	3
1.3 Project History	3
2.0 Vegetation.	5
2.1 Success Criteria	5
2.2 Description of Species.	5
2.3 Results of Vegetation Monitoring	5
2.4 Conclusions	6
3.0 Overall Conclusions and Recommendations	7

TABLES

Table 1 – Vegetation Monitoring Results.	5
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FIGURES

Figure 1 – Site Location Map	4
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APPENDICES

Appendix A – Site Photos	8
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SUMMARY

The Little McQueen Mitigation Site is located in Robeson County and serves as mitigation for the widening of US 74 in Robeson and Columbus Counties. Planted in 1999, the site is to be monitored for vegetation success a minimum of three years.

In October 2000, representatives from the NCDOT's Roadside Environmental Branch inspected the Little McQueen Mitigation Site for illegal dumping of trash and debris. No evidence was found of any illegal dumping on the NCDOT property.

Vegetation monitoring was performed on the approximately 2.3 acres, which involved tree planting along paths throughout the site. Based on the results of the second year monitoring, an average density of 373 trees/acre was obtained from the three vegetation transects. This is above the required 320 trees/acre stated in the success criteria for this site. NCDOT proposes to continue monitoring vegetation for another growing season.

1.0 INTRODUCTION

1.1 Project Description

The Little McQueen Mitigation Site is located in the southeastern corner of Robeson County. The property is bounded by US 74 to the south, NC 72 to the west, the Lumber River to the east and Lumber River State Park to the north (Figure 1). The site contains approximately 810 acres and serves as mitigation for the widening of US 74 in Robeson and Columbus Counties (DOA Action ID. 199501106). The majority of Little McQueen Mitigation Site is preservation; however, paths have been planted throughout the site and a gate has been installed at the entrance to deter vehicular traffic.

The site was first monitored for vegetation in 1999. However, two of the three planting transects were inaccessible due to flooding. The 2000 annual monitoring report includes the results of vegetation monitoring for all three planting transects.

1.2 Purpose

No hydrologic monitoring was proposed for this site. Vegetation monitoring along the planted paths is required to demonstrate successful mitigation. The following report details the results of vegetative monitoring during 2000 at the Little McQueen Mitigation Site.

1.3 Project History

April 1999	Site planted
October 1999	Vegetation Monitoring (1 yr.)
October 2000	Vegetation Monitoring (2 yr.)

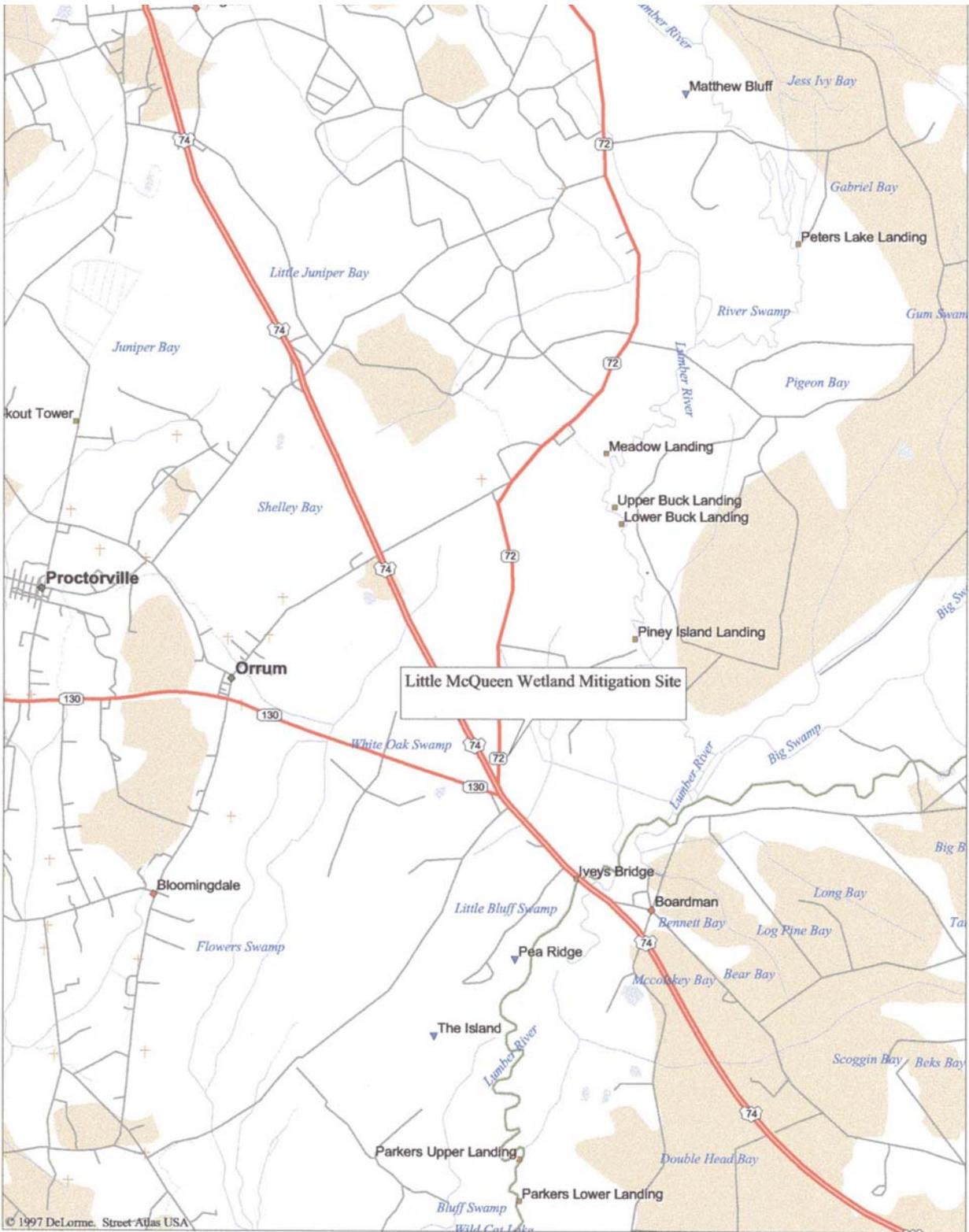


Figure 1
Site Location Map

2.0 VEGETATION: LITTLE MCQUEEN MITIGATION SITE (YEAR 2 OF 3)

2.1 Success Criteria

NCDOT will monitor the site for three years. 320 stems per acre survival criterion for planted seedlings will be used to determine success.

2.2 Description of Species

The following species were planted in the Wetland Area:

Wetland Area (2.3 Ac.)

Taxodium distichum, Baldcypress

Quercus michauxii, Swamp Chestnut Oak

Nyssa aquatica, Water Tupelo

2.3 Results of Vegetation Monitoring (2 year)

Transect #	Baldcypress	Swamp Chestnut Oak	Water Tupelo	Total (2 year)	Total (at planting)	Density (Tree/Acre)
1	12	3	1	16	23	473
2	6		3	9	20	306
3	1	6		7	14	340
Avg. Density						373

To determine tree density, transects are installed immediately following planting. The actual numbers of planted trees, which occur within the plot, are counted. This number is equated to the number within each plot, which represents 680 trees per acre (average). The survival monitoring number is compared to the planted number to obtain survival percentage. This percentage is applied to the 680 trees per acre to obtain an estimated tree per acre for the site. (Density = monitoring count / planted trees x 680

Site Notes:

Transect 1 had 2-4" surface water and transect 2 had 10-15" surface water. Some beaver damage was observed in the adjacent wooded sections of the site. Also many cypress and gum seedlings were observed re-generating naturally along the paths throughout the site. No evidence of vehicle or foot traffic observed on NCDOT property. There are several large trees down across the monitoring transects. The culvert that was removed at Steven's Canal has made access extremely difficult.

2.4 Conclusions

Of the 810 total acres on this site, approximately 2.3 acres involved tree planting. There were 3 vegetation monitoring transects established throughout the planted areas. The second year vegetation monitoring of the site indicates an average density of 373 trees/acre, which is above the 320-trees/acre requirement.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring in 2001 at the Little McQueen Mitigation Site.

APPENDIX A
SITE PHOTOS



Photo 1 (Transect 1)



Photo 2 (Transect 2)



Photo 3 (Transect 2)



Photo 4 (Transect 3)