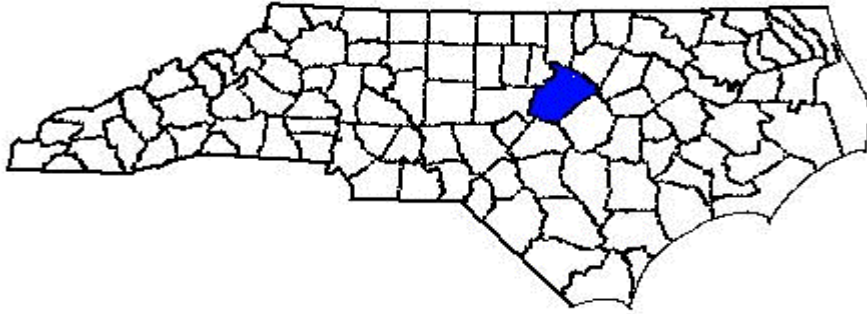


ANNUAL REPORT FOR 2003



Speight Branch Mitigation Site
Wake County
Project No. 8.1402601
TIP No. R-2541 WM



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SUMMARY

The following report summarizes the monitoring activities that have occurred in the past year at the Speight Branch Mitigation Site. The site consists of approximately 28 acres, however only 9.3 acres of this site were planted for wetland enhancement. The purpose of the site is to fulfill compensatory mitigation requirements for wetland and stream impacts associated with the Holly Springs Bypass (TIP Project No. R-2541).

No hydrologic monitoring is required for this project; however, vegetation monitoring is required for five years. The 2003 vegetation monitoring revealed an average density of 431 trees per acre, which is above the 320 trees per acre minimum requirement.

The stream channel was visually inspected during the annual vegetation monitoring on the site. The channel appears to be stable with herbaceous vegetation covering the streambanks throughout the project reach. Photos 6 through 13 show the conditions of the stream. No remedial actions are necessary.

The 2003-year represents the second year of vegetation monitoring for Speight Branch. NCDOT will continue vegetation monitoring at the Speight Branch Mitigation Site.

1.0 INTRODUCTION: SPEIGHT BRANCH MITIGATION SITE

1.1 Project Description

The Speight Branch Mitigation Site is located in the northwest quadrant of the intersection of SR 1152 and Swift Creek in central Wake County (Figure 1). The site is comprised of approximately 28 acres and provides 9.3 acres of wetland enhancement and 1,470 linear feet of stream restoration.

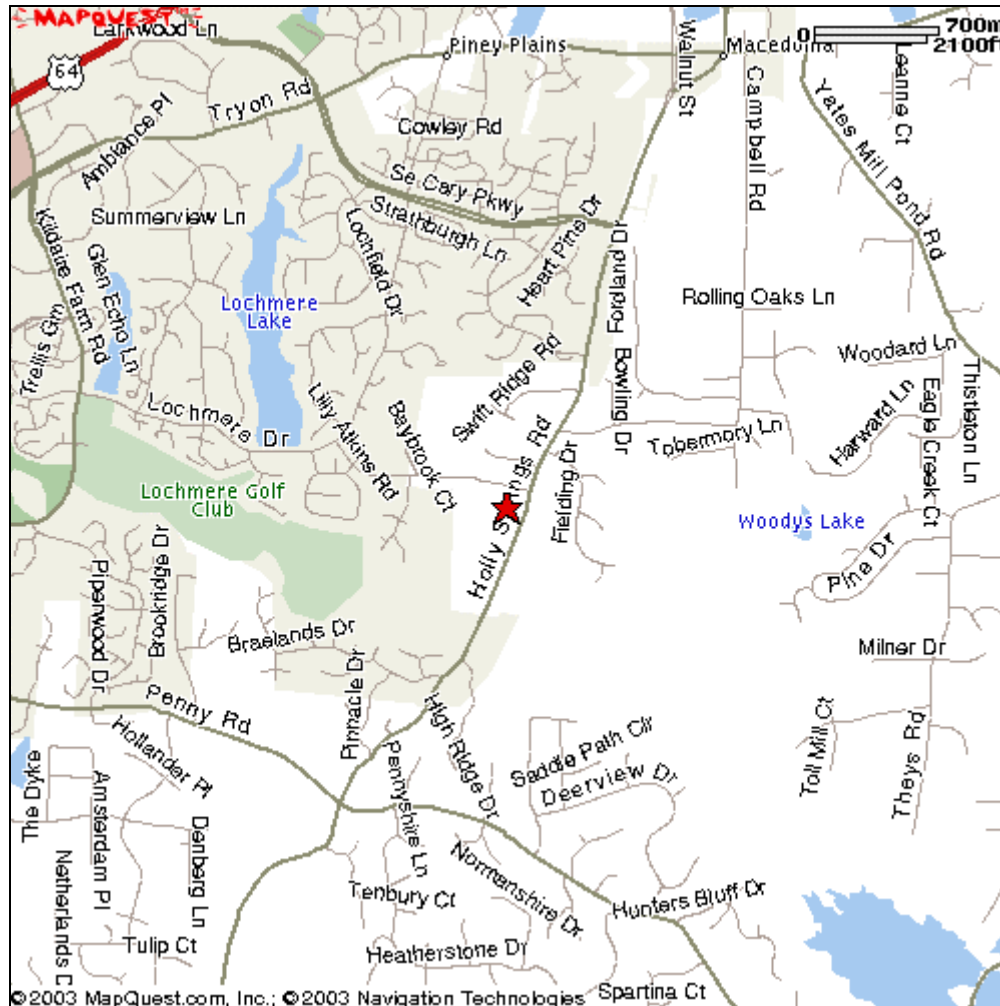
1.2 Purpose

The purpose of this report is to detail the vegetation monitoring in 2003 at the Speight Branch Mitigation Site. No hydrologic monitoring is required for this particular site.

1.3 Debit Ledger

Speight Branch	Mit. Plan			TIP DEBIT
Wake Co.				R-2541
Habitat	Acres At Start:	Acres Remaining	% Remaining	
Enhancement	8.3	1.22	14.7	7.08
Creation	1	1	100.0	
Preservation	19	19	100.0	
TOTAL	28.3	21.22	75.0	

Figure 1: Site Location Map



1.4 Project History

August 2001	Site Construction
November 2001	Banded Treatment of Mowing and Spraying
March 2002	Site Planted
June 2002	Vegetation Monitoring (1 yr.)
June 2003	Vegetation Monitoring (2 yr.)

2.0 VEGETATION: SPEIGHT BRANCH MITIGATION SITE (YEAR 2 MONITORING)

2.1 Success Criteria

Success criteria state that there must be a minimum of 320 trees per acre living for at least three consecutive years. A minimum of 290 trees per acre must be living at year 4 and a minimum of 260 trees per acre living at year 5.

2.2 Description of Species

The following tree species were planted in the Wetland Enhancement Area:

Platanus occidentalis, Sycamore

Quercus falcata var. *pagodaefolia*, Cherrybark Oak

Fraxinus pennsylvanica, Green Ash

Quercus lyrata, Overcup Oak

Betula nigra, River Birch

Quercus nigra, Water Oak

Quercus phellos, Willow Oak

2.3 Results of Vegetation Monitoring

Plot #	Sycamore	Cherrybark Oak	Green Ash	Overcup Oak	River Birch	Water Oak	Willow Oak	Total (2 year)	Total (at planting)	Density (Trees/Acre)
1	4	2	15	5	5			31	44	479
2	2		6	1			3	12	38	215
3	5		5	7		2	10	29	42	470
4	15	1	2	14	1			33	40	561
										431

Site Notes: Other species noted: boxelder, elderberry, sweetgum, heavy poison ivy, blackberry, briars, various grasses, tulip poplar, red maple, pine, cattail, *Aster* sp., ragweed, broomsedge, and winged sumac. Volunteer green ash noted in plots. Site was heavily vegetated and had standing water throughout.

3.0 Conclusions

Approximately 9.3 acres of this site were planted (wetland enhancement area) in March 2002. The 2003 vegetation monitoring revealed an average density of 431 trees per acre, which is above the 320 trees per acre minimum requirement.

The stream channel was visually inspected during the annual vegetation monitoring on the site. The channel appears to be stable with herbaceous vegetation covering the streambanks throughout the project reach. Photos 6 through 13 show the conditions of the stream. No remedial actions are necessary.

NCDOT will continue vegetation monitoring on the Speight Branch Mitigation Site.

APPENDIX A

SITE PHOTOS/PHOTO AND VEGETATION PLOT LOCATIONS

Speight Branch



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6 (Stream)

Speight Branch



Photo 7 (Stream)



Photo 8 (Stream)



Photo 9 (Stream)



Photo 10 (Stream)



Photo 11 (Stream)



Photo 12 (Stream)

Speight Branch



Photo 13 (Stream)

Speight Branch

Speight Branch Mitigation Site
Photo and Vegetation Plot Locations

