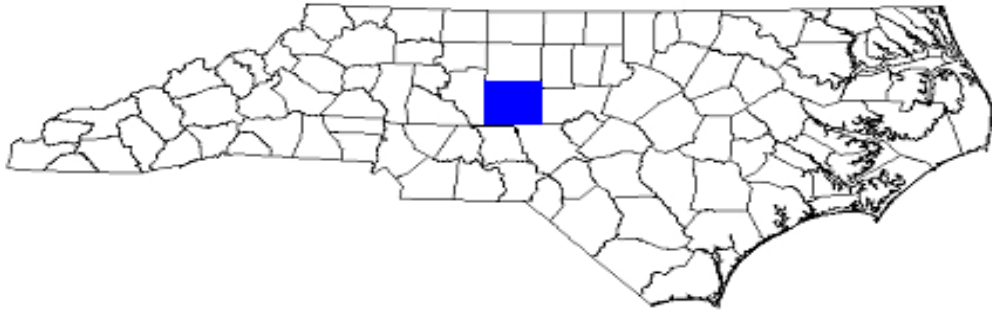


# ANNUAL REPORT FOR 2004



**Caviness Mitigation Site  
Randolph County  
WBS Element 34820.4.1  
TIP No. U-2524WM**



Prepared By:  
Office of Natural Environment & Roadside Environmental Unit  
North Carolina Department of Transportation  
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## **SUMMARY**

The following report summarizes the monitoring activities that have occurred in the Year 2004 at the Caviness Mitigation Site. The site is located in Randolph County, North Carolina. The site was designed during July 2003 and constructed in January 2004 by the North Carolina Department of Transportation (NCDOT). This report provides the monitoring results for the first documented year of monitoring (Year 2004). The Caviness Site will be monitored through the Year 2009 or until success criteria are met.

No hydrologic monitoring is required for this project; however, vegetation monitoring is required for five years. The 2004 vegetation monitoring revealed an average density of 610 trees per acre, which is above the 320 trees per acre minimum requirement.

The Caviness Site was constructed to provide 3250 linear feet of mitigation credit for stream impacts associated with Transportation Improvement Program (TIP) number U-2524.

The stream channel was visually inspected biannually during the summer and winter of 2004 and reports were submitted to both the Corps of Engineers and the Division of Water Quality. The channel appears to be stable with herbaceous vegetation covering the streambanks throughout the project reach. Some minor remedial actions may be necessary and shall be addressed at the annual monitoring meeting.

Per the letter from the Ecosystem Enhancement Program (EEP) to NCDOT dated August 25, 2004, the EEP has accepted the transfer of all offsite mitigation projects. The EEP will be responsible for fulfilling the remaining monitoring requirements and future remediation for this project.

## **1.0 INTRODUCTION: CAVINESS MITIGATION SITE**

### **1.1 Project Description**

The Caviness Mitigation Site is located Randolph County near the intersection of Tommy Cox Rd. and NC 42 (Figure 1). The site provides 3250 linear feet of stream restoration credit.

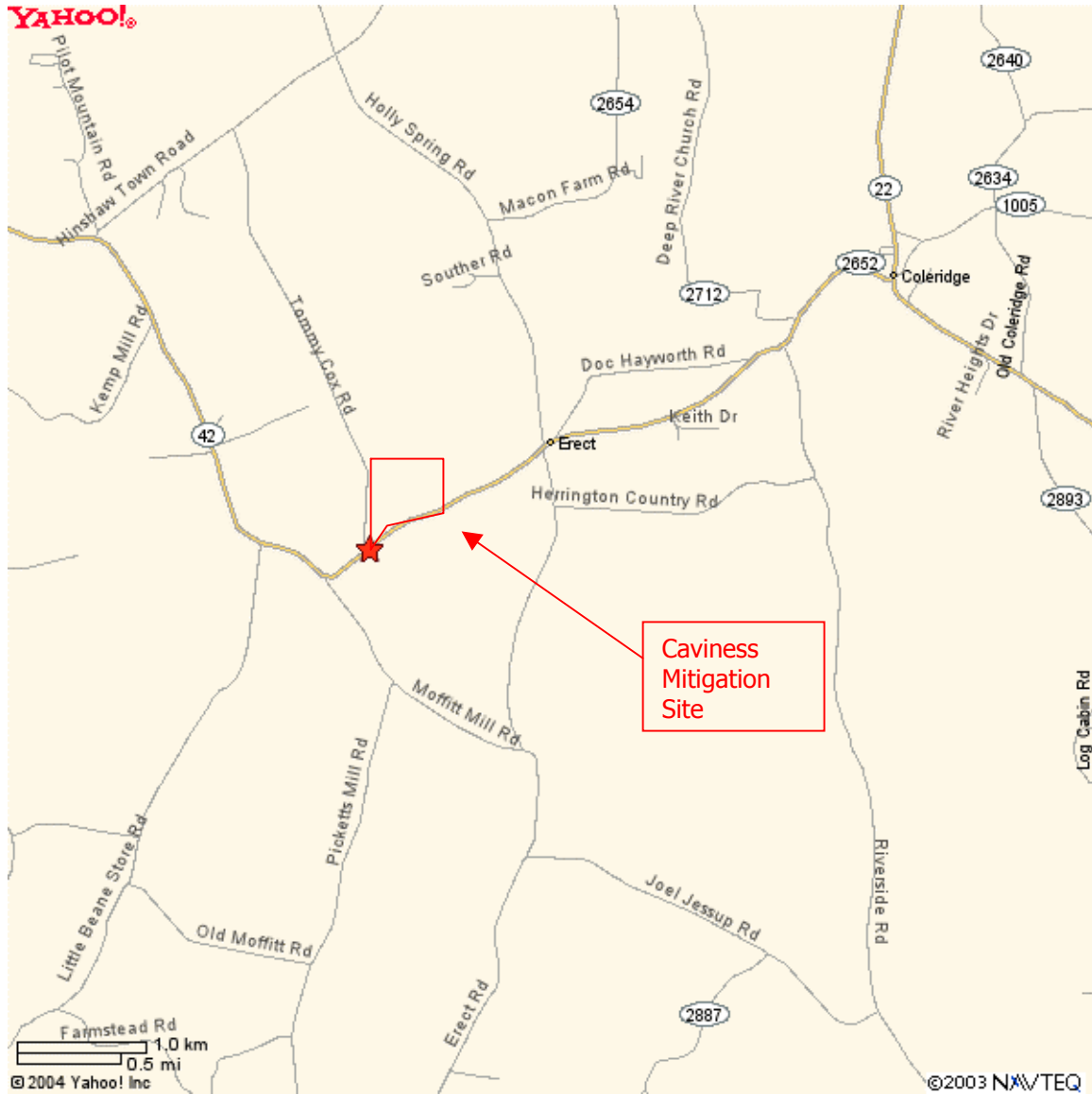
### **1.2 Purpose**

The purpose of this report is to detail the vegetation monitoring in 2004 at the Caviness Mitigation Site. No hydrologic monitoring is required for this particular site.

### **1.3 Project History**

January 2004	Construction Completed
March 2004	Site Planted
July 2004	Vegetation Monitoring (1 yr.)

Figure 1: Site Location Map



## 2.0 VEGETATION: CAVINESS MITIGATION SITE (YEAR 1 MONITORING)

### 2.1 Success Criteria

Success Criteria states that at least 320 stems per acre must survive after the completion of the third growing season and 260 stems per acre after the fifth growing season. If the desired vegetation has not been established, NCDOT will notify the appropriate agencies and will implement corrective measures.

### 2.2 Description of Species

The following species were planted in the Wetland Restoration Area: (approximately 11 acres)

*Fraxinus pennsylvanica*, Green Ash

*Quercus phellos*, Willow Oak

*Quercus alba*, White Oak

*Platanus occidentalis*, Sycamore

*Quercus falcata* var. *falcata*, Southern Red Oak

### 2.3 Results of Vegetation Monitoring

Plot #	Green Ash	Sycamore	Southern Red Oak	White Oak	Willow Oak	Total (1 year)	Total (at planting)	Density (Trees/Acre)
1		12	10	7	9	38	41	630
2	19	17	4	12		52	55	643
3	8	10	5	12	10	45	55	556
<b>AVERAGE DENSITY</b>								<b>610</b>

**Site Notes:** Other species noted: fescue, tear-thumb, volunteer tulip poplar, golden rod, and ragweed.

## **2.4 Conclusions**

This site consisted of approximately 11 acres of tree planting. There were 3 vegetation monitoring plots established throughout the planting areas. The 2004 vegetation monitoring of the site revealed an average tree density of 610 trees per acre. This average is above the minimum success criteria of 320 trees per acre.

The stream channel was visually inspected biannually during the summer and winter of 2004 and reports were submitted to both the Corps of Engineers and the Division of Water Quality. The channel appears to be stable with herbaceous vegetation covering the streambanks throughout the project reach. Some minor remedial actions may be necessary and shall be addressed at the annual monitoring meeting.

Per the letter from the Ecosystem Enhancement Program (EEP) to NCDOT dated August 25, 2004, the EEP has accepted the transfer of all offsite mitigation projects. The EEP will be responsible for fulfilling the remaining monitoring requirements and future remediation for this project.

## APPENDIX A

### SITE PHOTOS/PHOTO AND VEGETATION PLOT LOCATIONS



# Caviness



Photo 1



Photo 2



Photo 3

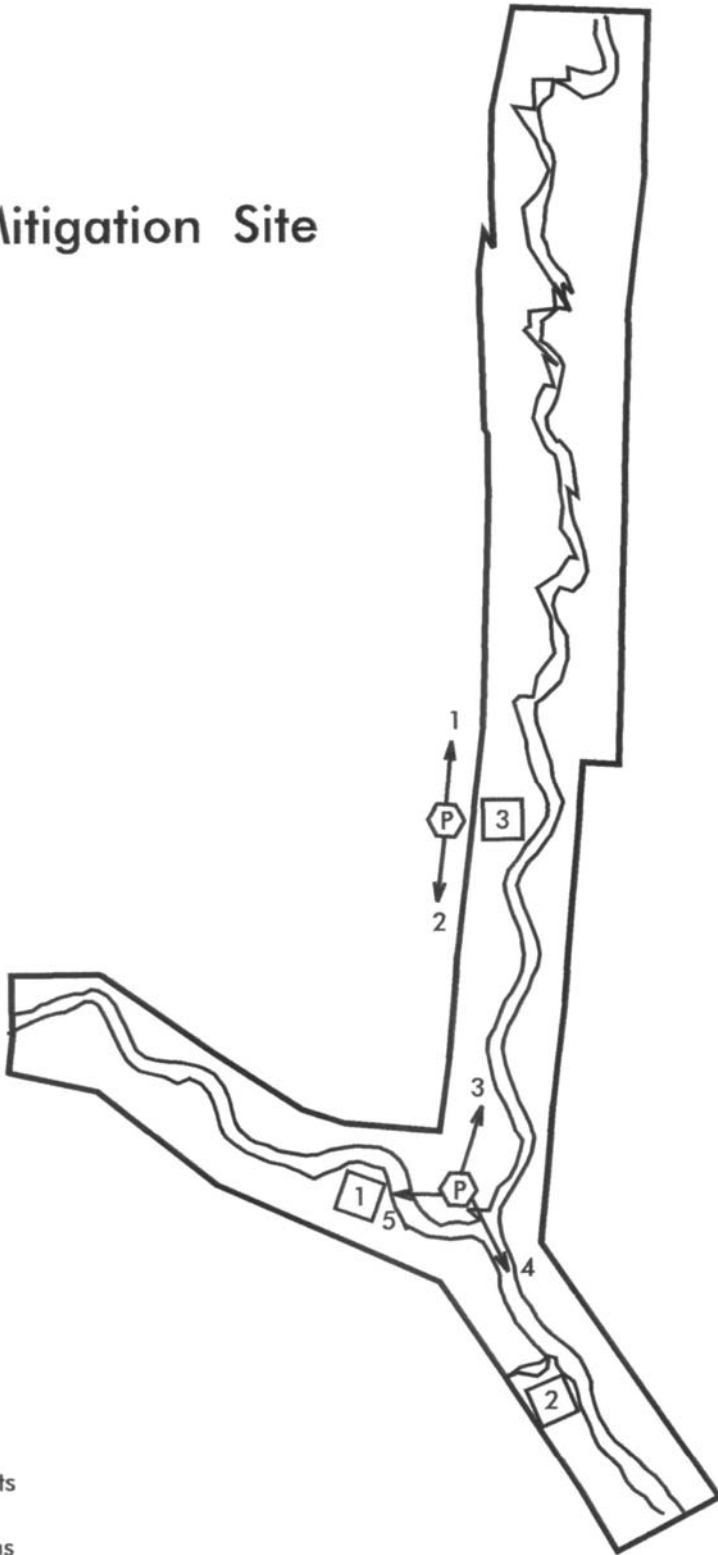


Photo 4



Photo 5  
2004

# Caviness Mitigation Site



-  Monitoring Plots
-  Photo Locations