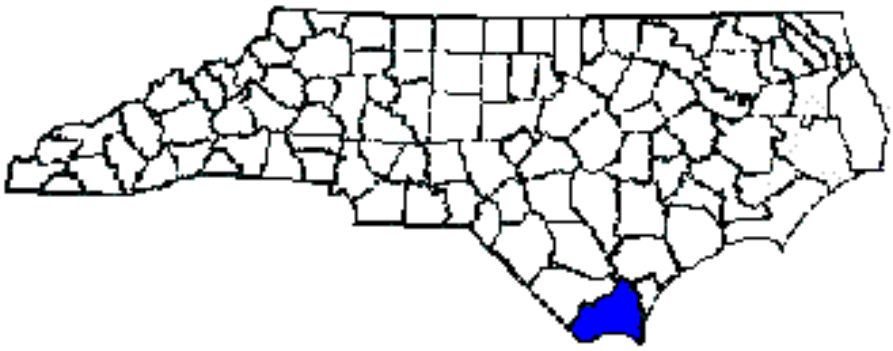
ANNUAL REPORT FOR 2015



Charles Branch Wetland Mitigation Site
Brunswick County
TIP No. U-3462
COE Action ID: 19982173
DWR #: 20081177

Prepared By:
Roadside Environmental Unit & Natural Environment Section
North Carolina Department of Transportation
August 2015

TABLE OF CONTENTS

SUMMARY 1

1.0 Introduction 2
.1 Project Description 2
.2 Purpose 2
.3 Project History 2
.4 Debit Ledger 2

2.0 Vegetation: 4

.1 Success Criteria 4
.2 Description of Species 4
.3 Results of Vegetation Monitoring 5
.4 Conclusions. 5

3.0 Overall Conclusions and Recommendations 5

FIGURES

Figure 1 – Vicinity Map 3

APPENDICES

Appendix A – Site Photos, Photo Point and Planted Area Location Maps

SUMMARY

The Charles Branch Wetland Mitigation Site is located in Brunswick County**.** The site was initially planted in May 2010 and a supplemental planting occurred in May 2011. This mitigation site was designed as mitigation for wetland impacts associated with roadway project U-3462.

The mitigation encompasses approximately 0.94 acres of wetland creation. This onsite mitigation will offset the total project impacts that require mitigation, consisting of 0.23 acres of wetland. NCDOT shall monitor the wetland creation areas by photo documentation and areal determinations of vegetation cover for five years and will submit a report annually. Hydrologic monitoring is not required for this project.

After the fourth year of monitoring, the Charles Branch Wetland Mitigation Site shows by visual observation that the planted species are surviving. NCDOT proposes to continue vegetation monitoring at the Charles Branch Wetland Mitigation Site for 2016.

1.0 INTRODUCTION

1.1 Project Description

The Charles Branch Wetland Mitigation Site is located at the intersection of US 17 Business and Smith Avenue (SR 1537) in the western quadrants of the roadway project (Figure 1). The site consists of approximately 0.94 acres of wetland creation for wetland impacts associated with roadway project U-3462.

1.2 Purpose

In order for a mitigation site to be considered successful, a site must meet the success criteria. This report details the vegetation monitoring in 2015 at the Charles Branch Wetland Mitigation Site. Hydrologic monitoring was not required for the site.

1.3 Project History

May 2010	Site Planted
September 2010	Treated Phragmites
May 2011	Supplemental Planting
May 2012	Treated Phragmites
July 2012	Vegetation Monitoring (Year 1)
October 2012	Treated Phragmites
May 2013	Treated Phragmites
July 2013	Vegetation Monitoring (Year 2)
July 2013	Treated Phragmites
June 2014	Vegetation Monitoring (Year 3)
July 2014	Treated Phragmites
August 2015	Vegetation Monitoring (Year 4)
August 2015	Treated Phragmites

1.4 Debit Ledger

The entire Charles Branch wetland mitigation site was used for the U-3462 project to compensate for unavoidable wetland impacts.

Figure 1. Vicinity Map

2.0 VEGETATION: CHARLES BRANCH WETLAND MITIGATION SITE (YEAR 4 MONITORING)

2.1 Success Criteria

Monitoring of the wetland creation areas shall consist of photographs and areal determinations of vegetation cover. The vegetation cover goal is at least 75 percent desirable species. The sites should be monitored for 5 years. A brief report on the progress of these areas in attaining wetland jurisdictional status should be submitted to the DWQ annually during the monitoring period. Five years after project completion, NCDOT shall schedule an agency field meeting with the NCDWQ and other applicable agencies to determine if the created areas have attained jurisdictional wetland status. If, at the end of five years, the created areas have not attained jurisdictional wetland status, NCDWQ shall determine if additional compensatory wetland mitigation is required.

2.2 Description of Species

The following wetland species were planted in the Wetland Creation Area:

Scirpus cyperinus, Woolgrass

Carex stricta, Tussock Sedge

Juncus effusus, Soft Rush

Juncus roemerianus, Black Needle Rush

Scirpus robustus, Saltmarsh Bulrush

Cladium jamaicense, Sawgrass

2.3 Results of Vegetation Monitoring

The wetland creation areas were initially planted in May 2010. The two wetland creation areas along the UT to Charles Branch became highly vegetated from this initial planting. The larger creation area along Charles Branch was lacking planted vegetation after the initial planting. Water and soil samples were taken in this area in December 2010 which showed high salinity levels. A supplemental planting was completed in May 2011 with more salt tolerant marsh grass species.

The wetland creation areas are re-attaining wetland jurisdictional status with approximately 95% vegetation coverage noted onsite. All of the planted species were noted surviving and were continuing to spread throughout the wetland creation areas. Other species noted within the planted area included: cattails, black willow, baccharis, phragmites, *Scirpus* sp., and various wetland grasses. Cattail was the most dominate species noted onsite. Small patches of phragmites have continually been treated with herbicide after the initial planting and will continue to be treated throughout the monitoring period.

2.4 Conclusions

There were approximately 0.94 acres of wetland creation. There were no plots established on the site. By visual observation, the Charles Branch Wetland Mitigation Site shows that the planted species are surviving and the wetland creation area is re-attaining wetland jurisdictional status.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring at the Charles Branch Wetland Mitigation Site for 2016.

APPENDIX A

SITE PHOTOS, PHOTO POINT AND PLANTED AREA LOCATION MAPS

Charles Branch Wetland Mitigation Site

Photo Point #1

Photo Point #2

Photo Point #3

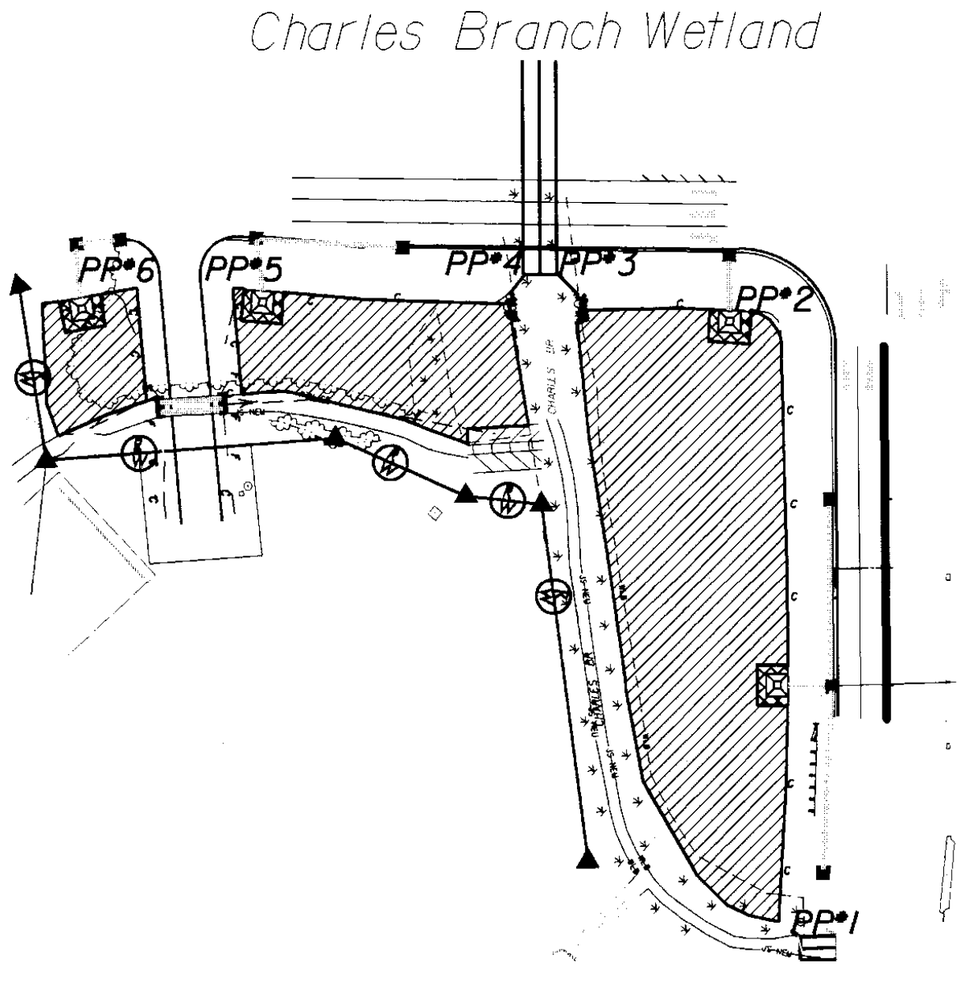
Photo Point #4

Photo Point #5
August 2015

Photo Point #6

U-3462 Charles Branch Mitigation Site
Wetland Photo Point Locations
Brunswick County, North Carolina

0 125 250 500 Feet

N
W E
S

Charles Branch Wetland