

ANNUAL REPORT FOR 2013



Pig Basket Creek Mitigation Site
Nash County
TIP No. B-3876
COE Action ID: SAW-2007-1026-164
DWQ #: 20070366



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

TABLE OF CONTENTS

SUMMARY	1
1.0 Introduction	2
.1 Project Description	2
.2 Purpose	2
.3 Project History	2
.4 Debit Ledger.....	3
2.0 Vegetation:	4
.1 Success Criteria	4
.2 Description of Species.....	4
.3 Results of Vegetation Monitoring	4
.4 Conclusions.	4
3.0 Overall Conclusions and Recommendations	4

FIGURES

Figure 1 – Site Location Map	5
------------------------------------	---

APPENDICES

Appendix A – Site Photos & Site Maps

SUMMARY

The Pig Basket Creek Mitigation Site is located in Nash County. The site was planted in December 2008 and was designed as mitigation for wetland impacts associated with bridge project B-3876.

The mitigation encompasses approximately 0.52 acres of wetland restoration, including 0.22 acres at Site 4 and 0.30 acres at Site 5. The roadway project will impact 0.13 acres of unavoidable wetlands, leaving approximately 0.39 acres of wetland restoration assets onsite. The restoration will involve removing causeway fill from the existing approaches to Bridge No. 34 to match the adjacent wetland elevation. NCDOT will also perform enhancement along 90 feet of stream channel at Site 3 on the UT to Pig Basket Creek by removing existing fill as described above along its right bank and restricting agricultural activities along its left bank. NCDOT shall monitor vegetation success by visual observation and photo documentation and will submit an annual report. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful.

Due to multiple site encroachments, the monitoring period was restarted in 2011. After the third year of monitoring, the Pig Basket Creek Site shows by visual observation that the planted species are surviving. The entire site was replanted in January 2011 due to ongoing encroachments at the site.

NCDOT proposes to discontinue vegetation monitoring at the Pig Basket Creek Mitigation Site.

1.0 INTRODUCTION

1.1 Project Description

The Pig Basket Creek Mitigation Site is located at Bridge No. 34 on SR 1004 over Pig Basket Creek in Nash County (Figure 1). The site consists of approximately 0.52 acres of mitigation for wetland impacts and 90 feet of stream enhancement associated with project B-3876.

1.2 Purpose

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

1.3 Project History

December 2008	Reforestation Completed
February 2009	Installed signs identifying site
July 2009	Vegetation Monitoring (Year 1)
Summer 2009	Site 4 was mowed
February 2010	Replanted Site 4 Wetland Restoration Area
June 2010	Vegetation Monitoring (Year 2)
September 2010	Installed additional signs along Ag field
January 2011	Additional encroachments noted
January 2011	Replanted entire site
July 2011	Vegetation Monitoring (Year 1 - Restart)
July 2012	Vegetation Monitoring (Year 2)
June 2013	Vegetation Monitoring (Year 3)

1.4 Debit Ledger

Site name	Site TIP	HUC	River Basin	Division	County	Mitigation Type	Notes	As Built Quantity	Available	Debit
Pig Basket Creek	B-3876	3020101	Tar-Pamlico	4	Nash					B-3876
						Riverine Wetland Restoration		0.24	0.11	0.13
						Stream Enhancement		90	0	90

Note: Debit ledger information up to date as of April 16th, 2014. The debit ledger has been updated based on the mitigation that was approved at the on-site meeting held with the resource agencies on April 3rd, 2014. A site map is also included in Appendix A.

2.0 VEGETATION: PIG BASKET CREEK MITIGATION SITE (YEAR 3 MONITORING)

2.1 Success Criteria

Success Criteria states that NCDOT shall monitor the mitigation site by visual observation and photo points for survival and aerial cover of vegetation. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful. Monitoring will be initiated upon completion of the site planting.

2.2 Description of Species

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

Liriodendron tulipifera, Tulip Poplar

Platanus occidentalis, Sycamore

Fraxinus pennsylvanica, Green Ash

Quercus nigra, Water Oak

Quercus phellos, Willow Oak

Nyssa aquatica, Water Tupelo

The following wetland species were planted in the Stream Enhancement Area:

Salix nigra, Black Willow

2.3 Results of Vegetation Monitoring

The impacted area where the old bridge and causeway was removed is re-attaining wetland jurisdictional status and the planted species are surviving. Planted species noted surviving included sycamore, water oak, tulip poplar, green ash, and willow oak. Other species noted within the planted area included river birch, sedge, fennel, sweetgum, baccharis, soft rush, red maple, alder, and various grasses. A bankfull event had recently occurred along Pig Basket Creek.

The entire site was replanted in January 2011 due to multiple encroachments (vehicular trespass, mowing, and spraying) during the monitoring period. The perimeter of the site has been signed to prevent further encroachments.

Vegetation noted within the stream enhancement area included black willow, red maple, black berry, pokeweed, tag alder, briars, and various herbaceous species.

2.4 Conclusions

There were approximately 0.52 acres of wetland restoration and 90 feet of stream enhancement planted on site. There were no plots established on the site. By visual observation, the Pig Basket Creek Mitigation Site shows that the planted species are surviving and the impacted area is re-attaining wetland jurisdictional status.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to discontinue vegetation monitoring at the Pig Basket Creek Mitigation Site.

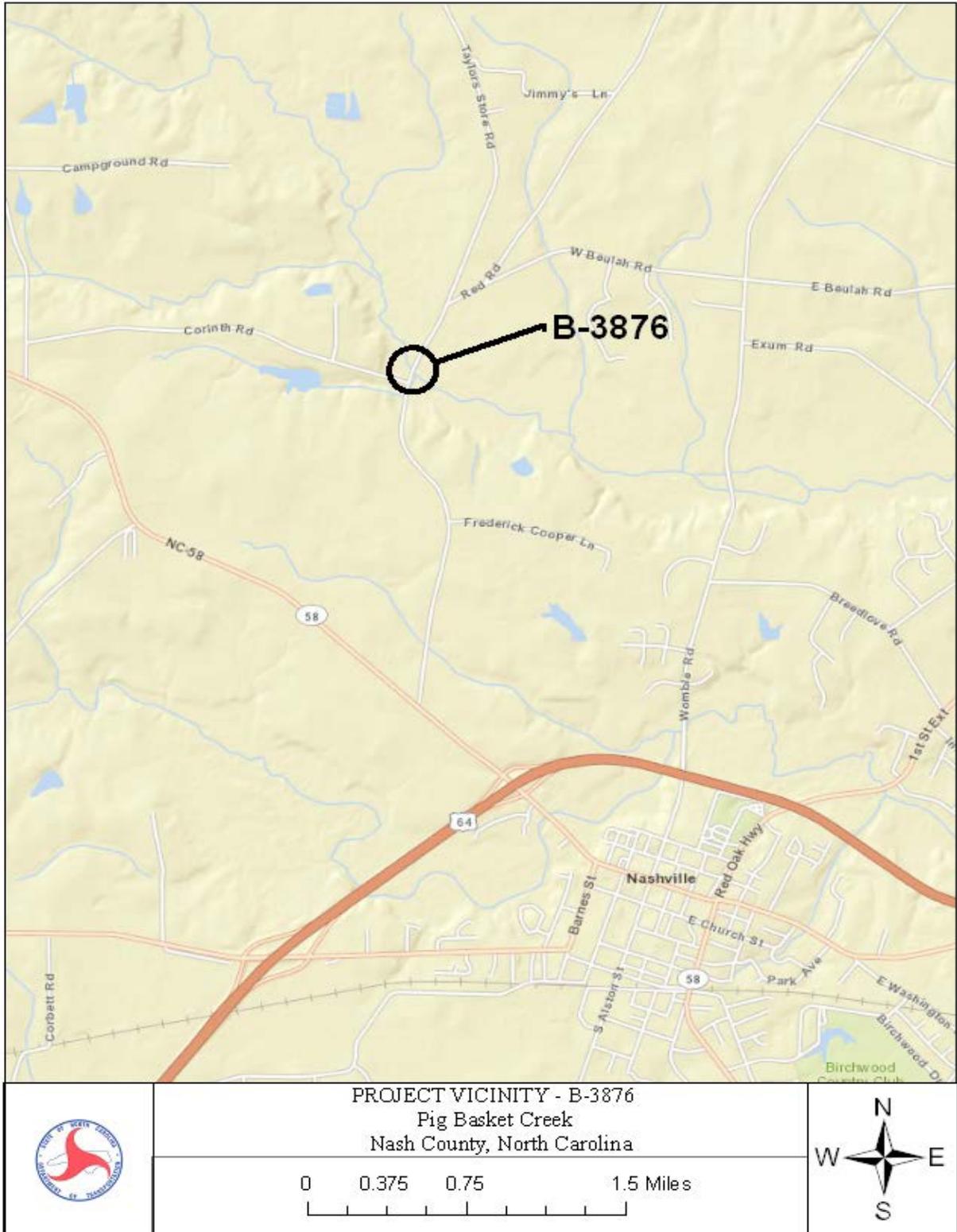


Figure 1. Site Location Map

APPENDIX A

SITE PHOTOS & SITE MAPS

Pig Basket Creek



Photo 1 (Wetland Restoration-Site 4)



Photo 2 (Wetland Restoration-Site 5)

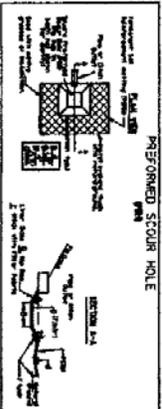
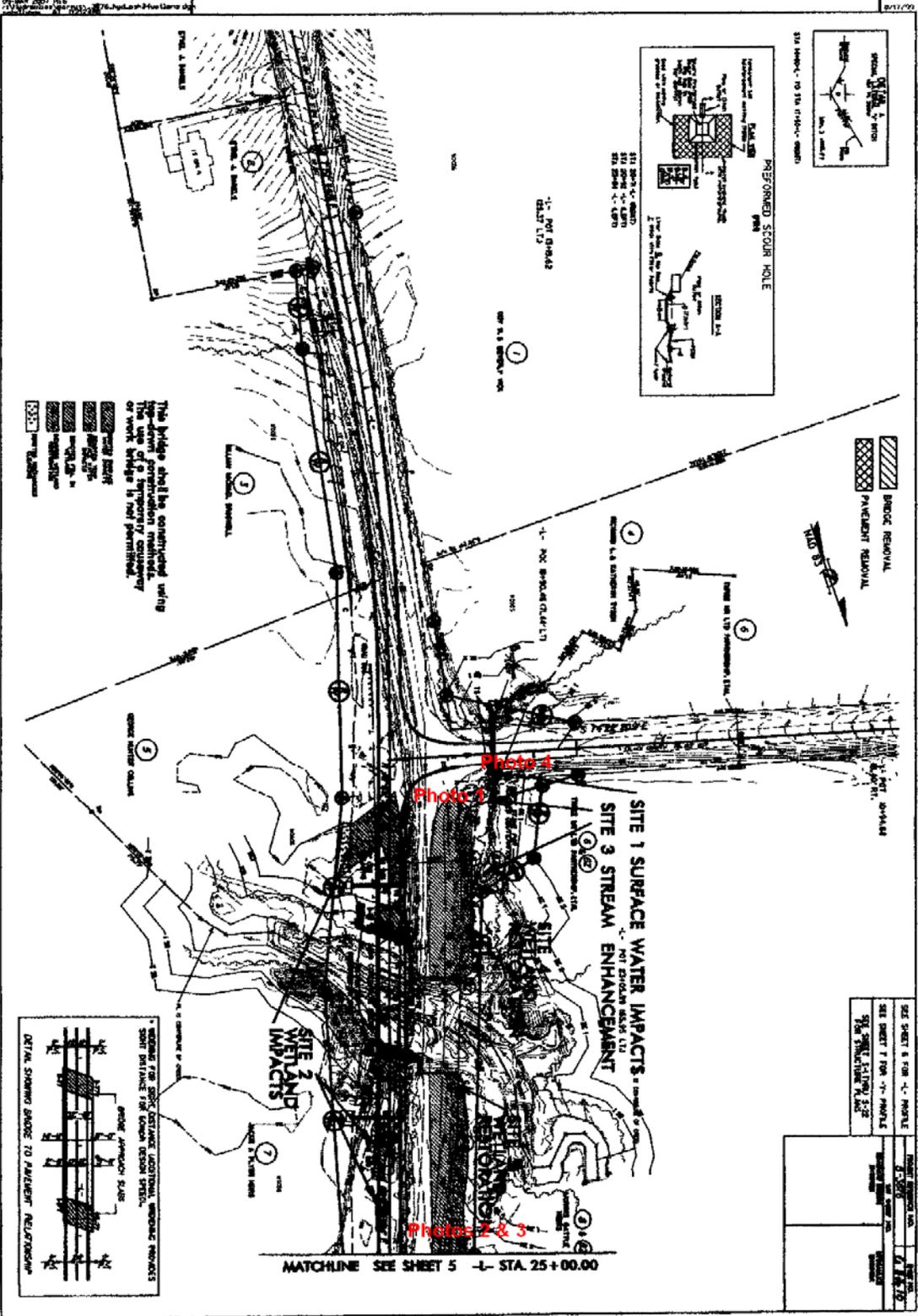


Photo 3 (Wetland Restoration-Site 5)

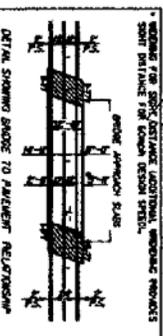


Photo 4 (Stream Enhancement-Site 3)

June 2013



The bridge shall be constructed using the same construction methods. The use of a temporary cofferdam or work bridge is not permitted.



SEE SHEET 8 FOR -1- PROFILE	DATE	BY
SEE SHEET 7 FOR -2- PROFILE	DATE	BY
SEE SHEET 6 FOR -3- PROFILE	DATE	BY

PROJECT NO.	DATE
BY	BY
CHECKED	CHECKED
APPROVED	APPROVED

MATCHLINE SEE SHEET 5 - STA. 25+00.00

10-723-2007 0825
10-723-2007 0825
10-723-2007 0825

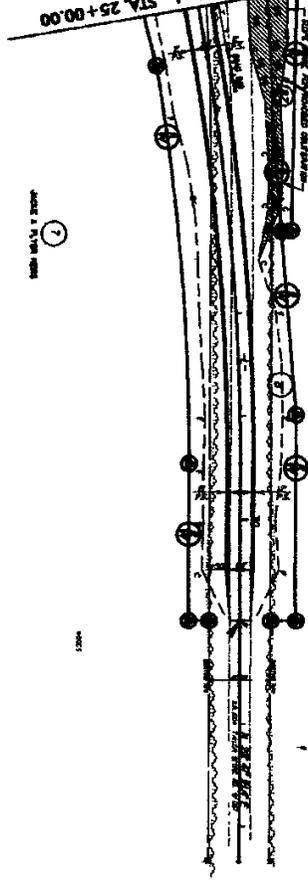
8/17-7

MATCHLINE SEE SHEET A-L STA. 25+00.00

①
DATE: 2/17/08

SITE 5
WETLAND
RESTORATION

②
DATE: 2/17/08



SEE SHEET 6 FOR TYPICAL

DATE	8/17-7
BY	
CHECKED	
APPROVED	
SCALE	
PROJECT	
SHEET	

