

ANNUAL REPORT FOR 2020



Duck Creek Temporary Impact Site

Beaufort County

WBS #: 17BP.2.R.85

COE Action ID: SAW-2018-00993

DWR Project #: 20180542

CAMA Permit #: 85-18



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SUMMARY

The Duck Creek Temporary Impact Site is located in Beaufort County. This is an annual report for temporary impacts associated with the bridge replacement of Bridge No. 249 over Duck Creek on Hawkins Beach Road. The temporary impact site was planted in February 2020 (bareroot seedlings and live stakes) and July 2020 (marsh grass).

The temporary impacts encompass approximately 0.09 acres (401: 0.05 acres and CAMA: 0.04 acres). The area that was impacted is being monitored to ensure that it re-attains wetland jurisdictional status. Hydrologic monitoring is not required for this site; however, vegetation monitoring is required for two years per the 401 permit and three years per the CAMA permit.

After the first year of monitoring, the Duck Creek Temporary Impact Site shows by visual observation that the temporarily impacted area is starting to partially re-attain jurisdictional wetland status within the 401 temporary impacted area. The remaining portion of the 401 wetland and the CAMA wetland planted vegetation did not survive.

NCDOT proposes to complete a supplemental planting with baldcypress and water tupelo seedlings within the 401 temporary impact area and to replant the CAMA temporary impact area with sawgrass in 2021. Plant material will be based on availability. NCDOT will continue vegetation monitoring at the Duck Creek Temporary Impact Site in 2021.

1.0 INTRODUCTION

1.1 Project Description

The Duck Creek Temporary Impact Site is located in Beaufort County at Bridge No. 249 over Duck Creek on Hawkins Beach Road (Figure 1). The temporary impacts encompass approximately 0.09 acres. The area that was impacted is being monitored to ensure that it re-attains jurisdictional wetland status. Hydrologic monitoring is not required for this site; however, vegetation monitoring is required for two years per the 401 permit and three years per the CAMA permit.

1.2 Purpose

In order for a temporary impact site to be considered successful, a site must meet vegetation success criteria. This report details the vegetation monitoring in 2020 at the Duck Creek Temporary Impact Site. Hydrologic monitoring was not required for the site.

1.3 Project History

February 2020	Streambank Reforestation Completed
July 2020	Marsh Grass Planting Completed
September 2020	Vegetation Monitoring (Year 1)

1.4 Debit Ledger

The restoration of the Duck Creek Temporary Impact Site was used entirely to compensate for temporary impacts on the Beaufort Br. No. 249 project. There were no wetland mitigation credits generated from the restoration of the impacted area.

2.0 VEGETATION: DUCK CREEK TEMPORARY IMPACT SITE (YEAR 1 MONITORING)

2.1 Success Criteria

NCDWR

Due to the possibility that compaction and/or other site alterations might prevent the temporary wetland impact area from re-attaining jurisdictional wetland status; the permittee shall provide an update on the wetland areas temporarily impacted by the temporary on-site detour. This update shall be conducted two growing seasons after completion of the work and shall consist of photographs and a brief report on the progress of the areas in re-attaining wetland jurisdictional status. Upon submission of this update to the NCDWR, the permittee shall schedule an agency field meeting with the NCDWR to determine if the wetland areas temporarily impacted by this project have re-attained jurisdictional wetland status. If the wetland areas temporarily impacted by this project have not re-attained jurisdictional wetland status, the NCDWR shall determine if compensatory wetland mitigation is to be required.

NCDWM

Due to the possibility that compaction and/or other site alterations might prevent the temporary Coastal Wetland impact areas from re-attaining pre-project wetland functions, the permittee shall provide an annual update on the Coastal Wetland areas temporarily impacted by this project. This annual update shall consist of photographs and a brief written report on the progress of these temporarily impacted areas in re-attaining their pre-project wetland functions. The permittee shall schedule a meeting with DCM to verify the extent and location of temporary impacts upon project completion. Within three years after project completion, the permittee shall hold another agency field meeting with DCM to determine if the Coastal Wetland areas temporarily impacted by this project have re-attained pre-project wetland functions. If at the end of three years DCM determines that the Coastal Wetland areas temporarily impacted by the project have not re-attained pre-project wetland functions, DCM will determine whether compensatory wetland mitigation shall be required.

2.2 Description of Species

The following live stakes species were planted in the Streambank Area (Type I):

Salix nigra, Black Willow

Cornus amomum, Silky Dogwood

The following tree species were planted in the 404 Wetland Area (Type II):

Liriodendron tulipifera, Tulip Poplar

Platanus occidentalis, Sycamore

Quercus phellos, Willow Oak

Betula nigra, River Birch

The following marsh grass species were planted in the CAMA Wetland Area (Type II):

Spartina cynosuroides, Big Cordgrass

Juncus roemerianus, Black Needlerush

2.3 Results of Vegetation Monitoring

The impacted area where the temporary impacts occurred is starting to partially re-attain jurisdictional wetland status within the 401 temporary impacted area. Tulip Poplar, Sycamore, Willow Oak, and River Birch were noted surviving from approximately Sta. 18+50 to 19+00 -L- RT. The planted vegetation in the remaining 401 and CAMA temporary impact areas did not survive. Excessively high water levels occurred during and after planting within these areas. Also, the CAMA temporary impact area was planted outside of the seasonal planting window of April 15 to May 15 due to construction delays to raise the wetland elevation in this area. Other species noted within the temporary impacted areas included stinkweed, *Scirpus* sp., cattail, fennel, baldcypress, baccharis, soft rush, *Juncus* sp., smartweed, black willow, and various grasses.

2.4 Conclusions

There were approximately 0.09 acres of temporary impacts. There were no plots established on the site. By visual observation, the Duck Creek Temporary Impact Site shows by visual observation that the temporarily impacted area is starting to partially re-attain jurisdictional wetland status within the 401 temporary impacted area. The remaining 401 and CAMA temporary impacted areas are lacking planted vegetation survival at this time.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to complete a supplemental planting with baldcypress and water tupelo seedlings within the 401 temporary impact area and to replant the CAMA temporary impact area with sawgrass in 2021. NCDOT will continue vegetation monitoring at the Duck Creek Temporary Impact Site in 2021.



Figure 1. Vicinity Map

APPENDIX A

SITE PHOTOS & SITE MAP

Duck Creek Temporary Impact Site



Photo 1



Photo 2



Photo 3

September 2020

DATE: 11/14/18

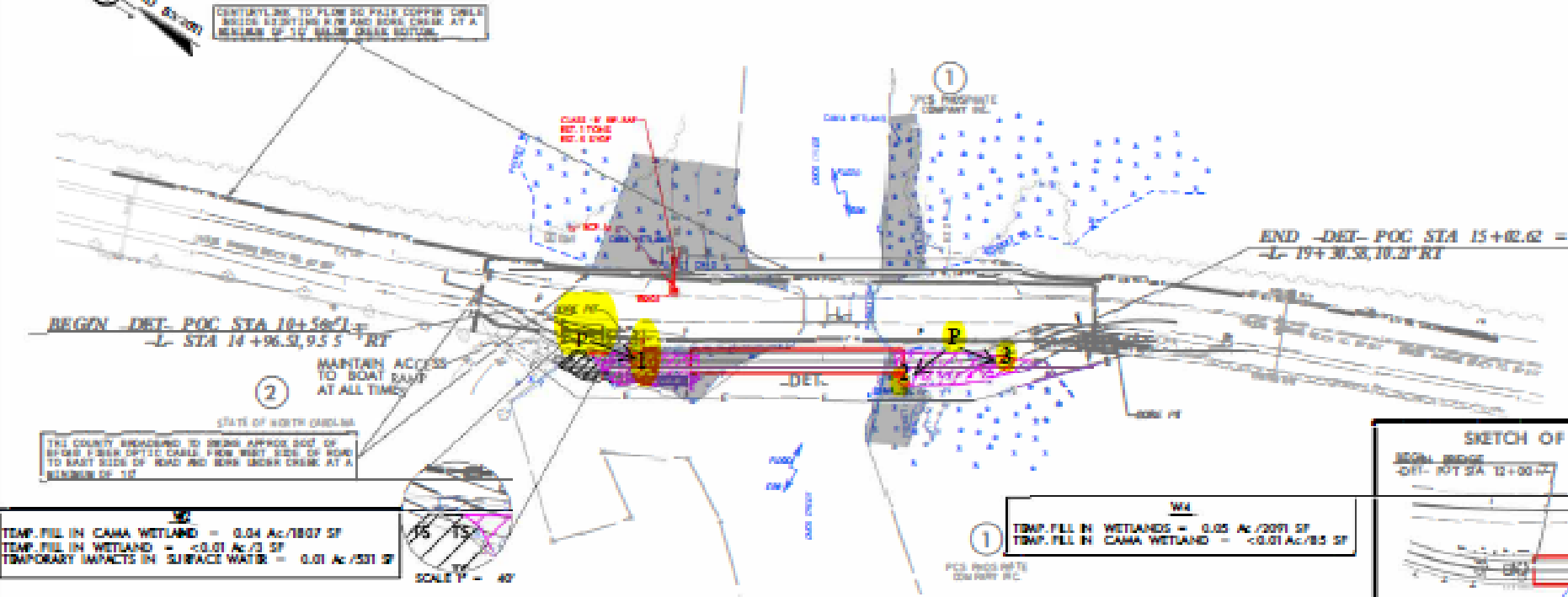
TEMPORARY DETOUR (-DET-) DETAIL SHEET

WETLAND & STREAM IMPACTS



PROJECT NUMBER	17087.2.0.03
DATE	11/14/18
PROJECT NAME	ROADWAY IMPROVEMENTS
PROJECT NUMBER	30-1

PERMIT DRAWING SHEET 4 OF 14



TEMP. FILL IN CAMA WETLAND = 0.04 AC/1807 SF
 TEMP. FILL IN WETLAND = <0.01 AC/3 SF
 TEMPORARY IMPACTS IN SURFACE WATER = 0.01 AC/531 SF

TEMP. FILL IN WETLANDS = 0.05 AC/2091 SF
 TEMP. FILL IN CAMA WETLAND = <0.01 AC/83 SF

