

ANNUAL REPORT FOR 2021



Duck Creek Temporary Impact Site

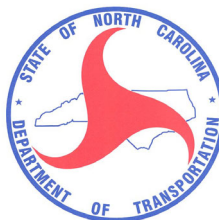
Beaufort County

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 (404: 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 DWR permit and three years per the CAMA permit.

A supplemental planting was completed in November 2020 within the 404 area with approximately 20 baldcypress and water tupelo seedlings being planted within the wetter area adjacent to Duck Creek.

Due to constant inundation within the CAMA temporary impact area and failure to return to wetland jurisdictional status, a NCDOT/Regulatory Agency meeting was held onsite in March 2021 to discuss remediation options. During the on-site meeting, it was determined that NCDOT would survey the adjacent marsh to determine the elevation range of the existing successful CAMA marsh. Based on those elevations, NCDOT would then raise the elevation of an approximately 6 feet wide swath from the toe of slope out into the CAMA temporary impact area. NCDOT maintenance forces installed additional fill to raise the area to this elevation in June 2021. In June 2021 sawgrass was planted in this area by NCDOT Roadside Environmental forces.

After restarting the first year of monitoring, the Duck Creek Temporary Impact Site shows by visual observation that the temporarily impacted area is re-attaining jurisdictional wetland status within the 404 and CAMA temporary impacted areas. The 404 area trees were surviving and the CAMA area that was recently planted noted sawgrass sprigs surviving.

NCDOT proposes to continue vegetation monitoring at the Duck Creek Temporary Impact Site in 2022.

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 DWR 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 2021 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)
November 2021	Additional Wetland Reforestation in 404 Area
March 2021	NCDOT/Regulatory Onsite Agency Meeting
June 2021	Additional Fill Added to Temp. CAMA Impact
June 2021	Marsh Grass Planting Completed
August 2021	Vegetation Monitoring (Year 1 Restart)

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 RESTART 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

Taxodium distichum, Baldcypress

Nyssa aquatica, Water Tupelo

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

Spartina cynosuroides, Big Cordgrass

Juncus roemerianus, Black Needlerush

Cladium jamaicense, Sawgrass

2.3 Results of Vegetation Monitoring

The impacted area where the temporary impacts occurred is re-attaining jurisdictional wetland status within the 404 and CAMA temporary impacted areas. The 404 area noted tulip poplar, sycamore, willow oak, river birch, and baldcypress trees surviving. Other species noted within the 404 area included black needle rush, woolgrass, wax myrtle, baccharis, fennel, marsh-elder sweetgum and various grasses. The CAMA area that was recently planted had sawgrass sprigs surviving. This area was inundated at the time of monitoring. Other species noted within the CAMA area included *Scirpus* sp., wiregrass, stinkweed, cattail, 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 re-attaining jurisdictional wetland status within the 404 and CAMA temporary impacted areas.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring at the Duck Creek Temporary Impact Site in 2022.



Figure 1. Vicinity Map

APPENDIX A

SITE PHOTOS & SITE MAP

Duck Creek Temporary Impact Site



Photo 1



Additional CAMA area photo



Photo 2



Photo 3

August 2021

2025.04.08.08.0049 - jgd_james_williams@hntb.com

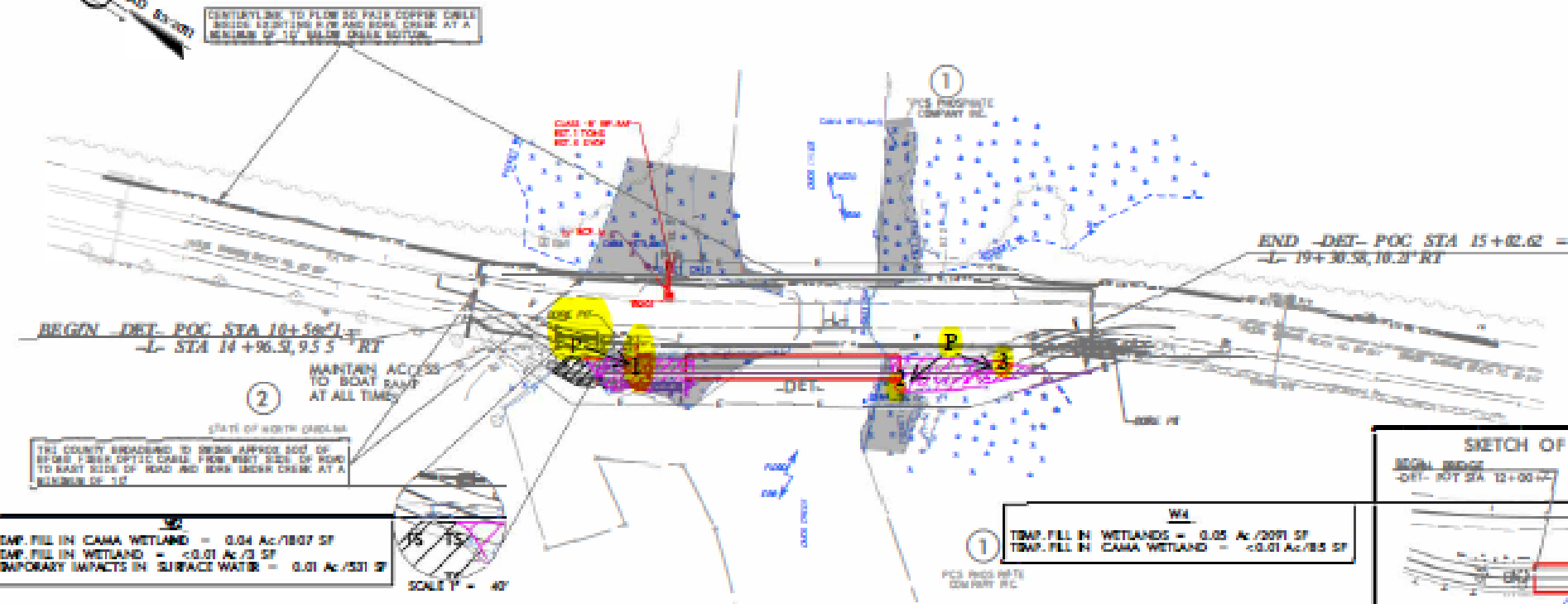
TEMPORARY DETOUR (-DET-) DETAIL SHEET

WETLAND & STREAM IMPACTS



PROJECT NUMBER:	DATE:
178P-2A-03	20-1
NO. SHEET(S):	
1	
CONTRACT NUMBER:	
DO COUNTY NOT COVERED FINAL UNLESS ALL SIGNATURES COMPLETED	

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/321 SF

W4
 TEMP. FILL IN WETLANDS = 0.05 Ac/2091 SF
 TEMP. FILL IN CAMA WETLAND = <0.01 Ac/85 SF

