

ANNUAL REPORT FOR 2020



Turner Street Marsh Mitigation Site

Carteret County

TIP #: R-3307

COE Action ID: SAW-2010-02125

CAMA Permit #: 37-12

NCDWR Project #: 20111003



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SUMMARY

The Turner Street Marsh Mitigation Site is located just north of the town of Beaufort along Turner Street adjacent to Town Creek in Carteret County. The site was planted in June 2016 and June 2018 and was designed as mitigation for wetland impacts associated with TIP # R-3307.

NCDOT will perform on-site mitigation with the restoration of 1.13 acres of salt marsh. The restoration was completed by the removal of causeway and existing pipes along Turner Street. The wetland restoration was planted with 2-inch smooth cordgrass plugs planted on 3-foot centers. NCDOT shall monitor the site for a minimum of five years or until the site is deemed successful.

When elevation shots were taken to develop the mitigation plan in 2007, 1.4 acres of marsh restoration was initially proposed based on-site conditions at the time. When construction of the project began in 2016, it was noted that portions of the proposed site had started to revegetate naturally. After review with the regulatory agencies, this naturally revegetated portion of the site was not graded. Approximately 1.13 acres of the original 1.4 acres has been graded and planted with marsh grass species.

- Initial proposed mitigation – 1.4 acres
- Graded and planted area (total) – 1.13 acres
- Area currently debited from site – 0.69 acres
- Area graded and planted outside of bridge footprint – 0.36 acres
- Area graded and planted within bridge footprint – 0.77 acres

There has been a hold put on the debit ledger. Final approved mitigation acreages will be computed after the required 5-year monitoring period is complete.

After the third year of monitoring, the Turner Street Marsh Mitigation Site shows that the planted species are surviving, and the restoration area is re-attaining wetland jurisdictional status. The restoration plantings underneath the bridge did not survive due to the low bridge height limiting the sunlight in this area.

NCDOT proposes to continue vegetation monitoring at the Turner Street Marsh Mitigation Site in 2021.

1.0 INTRODUCTION

1.1 Project Description

The Turner Street Marsh Mitigation Site is located just north of the town of Beaufort along Turner Street adjacent to Town Creek in Carteret County (Figure 1). The site consists of approximately 1.13 acres of wetland restoration for wetland impacts associated with TIP # R-3307.

1.2 Purpose

In order for a mitigation site to be considered successful, the site must meet vegetation success criteria. This report details the vegetation monitoring in 2020 at the Turner Street Marsh Mitigation Site. Hydrologic monitoring was not required for the site.

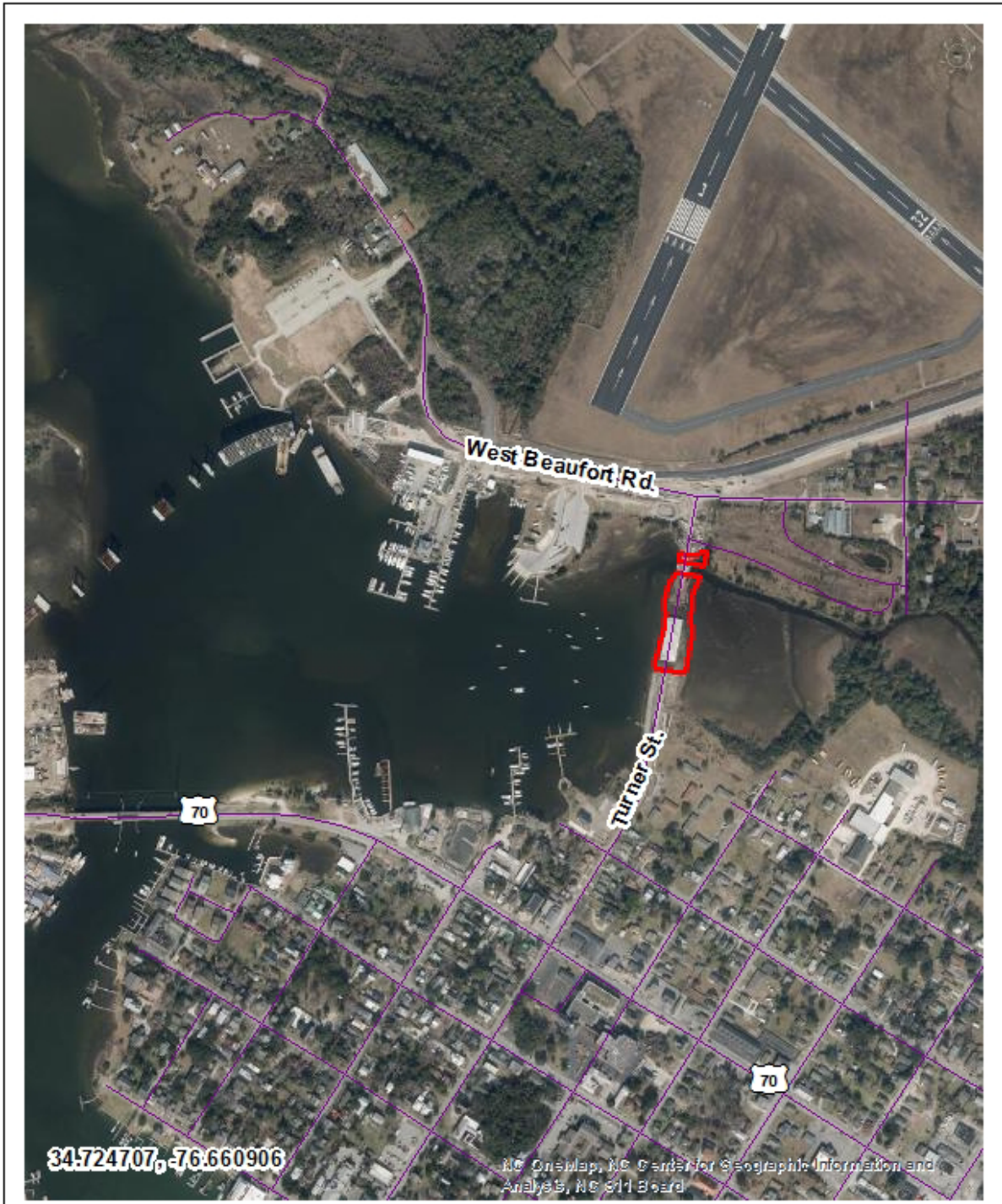
1.3 Project History

June 2016	Wetland Grass Planting
June 2018	Wetland Grass Planting
October 2018	Vegetation Monitoring (Year 1)
September 2019	Vegetation Monitoring (Year 2)
September 2020	Vegetation Monitoring (Year 3)

1.4 Debit Ledger

Site name	Site TIP	HUC	River Basin	Division	County	Mitigation Type	As Built Quantity	Available	Debit
Turner Street	R-3307	03020301	Pasquotank	2	Carteret				R-3307
						Marsh Restoration	1.40 acre	0.71 acre	0.69 acre.

Note: Debit ledger information up to date as of November 17, 2020.




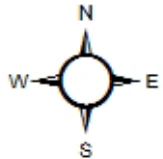
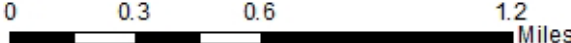
	<p>PROJECT VICINITY - R-3307 Turner Street Wetland Restoration Carteret County, North Carolina</p>		
	<p>0 0.3 0.6 1.2 Miles</p> 		

Figure 1. Vicinity Map
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2.0 VEGETATION: TURNER STREET MARSH MITIGATION SITE (YEAR 3 MONITORING)

2.1 Success Criteria

Mitigation Plan states:

Monitoring

Target elevations will be verified during construction to ensure the restoration area achieves the same hydrologic regime as the adjacent salt marsh wetland.

The quantitative marsh vegetation monitoring will be accomplished in accordance with the draft guidelines for "Site Monitoring Surveys for Emergent Marsh Mitigation", established by the National Marine Fisheries Service, through the evaluation of randomly distributed 1 square meter plots located by GPS within the site.

The vegetation component of the wetland site will be deemed successful if the following criteria are met:

1. At year five, the average of all plots should have a scale value of 5 (>75% vegetative cover) consisting of wetland herbaceous species, not including any invasive species;
2. A minimum of 70% of the plots shall contain the target (planted) species.







































NCDOT will perform the monitoring described above for 5 years or until the site is deemed successful.

2.2 Description of Species

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

Spartina alterniflora, Smooth Cordgrass

2.3 Results of Vegetation Monitoring

ZONE	Plot #	Scale Factor	<i>Spartina alterniflora</i>	Frequency	Notes
1	1	4.0			
	2	3.0			
	3	4.0			
	4	5.0			
	5	0.0			Under Bridge
	6	5.0			
	7	0.0			Under Bridge
	8	0.0			Under Bridge
	9	5.0			
	10	4.0			
	11	2.0			
	12	0.0			Under Bridge
	13	0.0			Under Bridge
	14	3.0			
	15	0.0			Under Bridge
	16	5.0			
	17	2.0			
	18	3.0			
	19	4.0			
	20	0.0			Under Bridge
	21	0.0			Under Bridge
	22	3.0			
	23	3.0			
	24	0.0			Under Bridge
	25	0.0			Under Bridge
	26	3.0			
	27	5.0			
	28	0.0			Under Bridge
	29	5.0			
	30	5.0			
Marsh Grass numbers with under the bridge plots included					
Frequency (Percentage of					
Plots with Desired Species)				63%	
Sum Scale Value				73	
Total Number of Plots Counted				30	
Vegetative Cover (Scale Value)				2.4	
Marsh Grass numbers with under the bridge plots NOT included					
Frequency (Percentage of					
Plots with Desired Species)				100%	
Sum Scale Value				73.0	
Total Number of Plots Counted				19	
Vegetative Cover (Scale Value)				3.8	

Site Notes: The planted marsh grass did not survive underneath the bridge due to the low bridge height limiting the sunlight in this area. Other species noted included glasswort and marsh-elder.

2.4 Conclusions

Marsh Grass numbers with under the bridge plots included:

- Percent Frequency of Target Species **67%**
Frequency of 70% required.
- Vegetative Cover Scale Value **2.4**
Scale Value of 5 required for year 5.

Marsh Grass numbers with under the bridge plots NOT included:

- Percent Frequency of Target Species **100%**
Frequency of 70% required.
- Vegetative Cover Scale Value **3.8**
Scale Value of 5 required for year 5.

Approximately 1.13 acres of this site involved marsh grass plantings. There were 30 random plots established throughout the planting area. These plots were located with GPS. Based upon the percent frequency and the scale value, the marsh grass area is on track for the third year of monitoring.

NCDOT proposes to continue monitoring the marsh grass area.

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

Vegetation monitoring of the marsh grass area revealed the target species and scale values were 63% and 2.4, respectively and when not including the plots underneath the bridge they were 100% and 3.8. NCDOT proposes to continue monitoring the vegetation at the Turner Street Marsh Mitigation Site in 2021.

APPENDIX A

SITE PHOTOS, PLOT AND PHOTO LOCATION MAPS

Turner Street Marsh



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5
September 2020

R-3307 Turner Street Mitigation
As-Built Plans



Original Proposed Mitigation Area
1.4 Acres

Graded and Planted Mitigation Area
1.3 Acres

⊕ Photo Point Locations