STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

September 18, 2024

North Carolina Division of Coastal Management
c/o Stephen Lane
400 Commerce Avenue
Morehead City, NC 28557

Dear Sir:

Subject: **Mid-Currituck Bridge CAMA Major Development Permit Application,** STIP Number: R-2576, Federal Aid Project No. BRSTP-0000S (494) Currituck and Dare Counties, Debit $475 from WBS Element 34470.1 TA1

The North Carolina Department of Transportation (NCDOT), North Carolina Turnpike Authority (NCTA) is hereby submitting a permit application for a Coastal Area Management Act (CAMA) Major Development permit for the construction of the Mid-Currituck Bridge project in Currituck and Dare Counties. The Mid-Currituck Bridge is a controlled-access toll road on new location that extends from US 158 near Coinjock/Aydlett to NC 12 near Corolla. The total length of the project is approximately 7.0 miles and includes a shorter bridge over Maple Swamp on the Currituck County mainland and the longer, main bridge over Currituck Sound. In addition, the project includes improvements to US 158 (both in Currituck and Dare Counties) and NC 12 (in Currituck County).

1.0 Introduction

The purpose of this project narrative is to provide a general overview of the Mid-Currituck Bridge project with links to the critical source documents, such as the 2012 Final Environmental Impact Statement (FEIS), the 2019 Reevaluation of the FEIS, and the 2019 Record of Decision (ROD), as well as short descriptions and references to supporting documents for critical portions of the documents that are relevant to the CAMA permit application. CAMA Major Permit application forms are in Attachment 1, Wetland and Surface Waters Impact permit drawings are in Attachment 2, and right-of-way plans are in Attachment 3.

NCDOT maintains a publicly accessible website for the Mid-Currituck Bridge project, including project documentation (https://www.ncdot.gov/projects/mid-currituck-bridge/Pages/default.aspx). Those documents, which provide the critical background information for this project, are located at https://www.ncdot.gov/projects/mid-currituck-bridge/Pages/project-documents.aspx. In addition to the cover letter, this application includes 23 attachments that are individually listed at the end of the cover letter.

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2.0 Purpose and Need for the Project

In 2003, NCDOT, the Federal Highway Administration (FHWA), and various Federal and State agencies reached a tentative agreement on a revised Statement of Purpose and Need for the proposed action which includes three primary goals. These goals, described in further detail in the FEIS (page viii), the Reevaluation of the FEIS (Page 3-1), and the ROD (Page 1), are as follows:

- The need to substantially improve traffic flow on the project area's thoroughfares (US 158 and NC 12); and
- The need to substantially reduce travel time for persons traveling between the Currituck County mainland and the Currituck County Outer Banks; and
- The need to substantially reduce hurricane evacuation times from the Outer Banks for residents and visitors who use US 158 and NC 168 as an evacuation route.

3.0 Project Description and Project History

3.1. Project Description

This project proposes to construct a new roadway and bridges on a new alignment across Maple Swamp and across Currituck Sound from US 158 near Coinjock/Aydlett to NC 12 south of Corolla (Figure 1). The project would involve a 4.66-mile bridge across the Currituck Sound, with an additional 1.5 miles of bridging over Maple Swamp. The bridge over the Currituck Sound would have a minimum navigational clearance of 20 feet. Temporary work bridges (trestles) and barges would be utilized to accomplish the construction of the bridge in Currituck Sound, eliminating the need to dredge work channels. More information on construction methodologies and the use of construction barges can be found in Attachment 4 and Attachment 5. Shoreline stabilization using riprap and backfill material will also take place along the western Currituck Sound shoreline in the vicinity of the bridge. There would also be localized improvements to US 158 and NC 12 to address the Purpose and Need for the project. It should also be noted that the project includes a third outbound lane east of the Wright Memorial Bridge for hurricane evacuation, and a reversal of the center turn lane for hurricane evacuation along US 158 (See Permit Drawing Sheets 88 of 89 and 88A of 89).

3.2. Project History

The following text was excerpted from the Cumulative Impact Report for Water Quality dated May 2021, Chapter 3. That document (Attachment 6) is available to be consulted for additional details.

> "Proposals for construction of a bridge over the Currituck Sound have been under investigation for more than 45 years. In 1975, Currituck County requested that the NCDOT Board of Transportation consider an east-west bridge crossing of Currituck Sound to the Currituck County Outer Banks. No additional action was taken at that time. A potential terminus for a Mid-Currituck Bridge on the Currituck County Outer Banks was identified in 1991. In 1995, a site was purchased and protected under the North Carolina Roadway Corridor Official Map Act. The FHWA published a Notice of Intent to

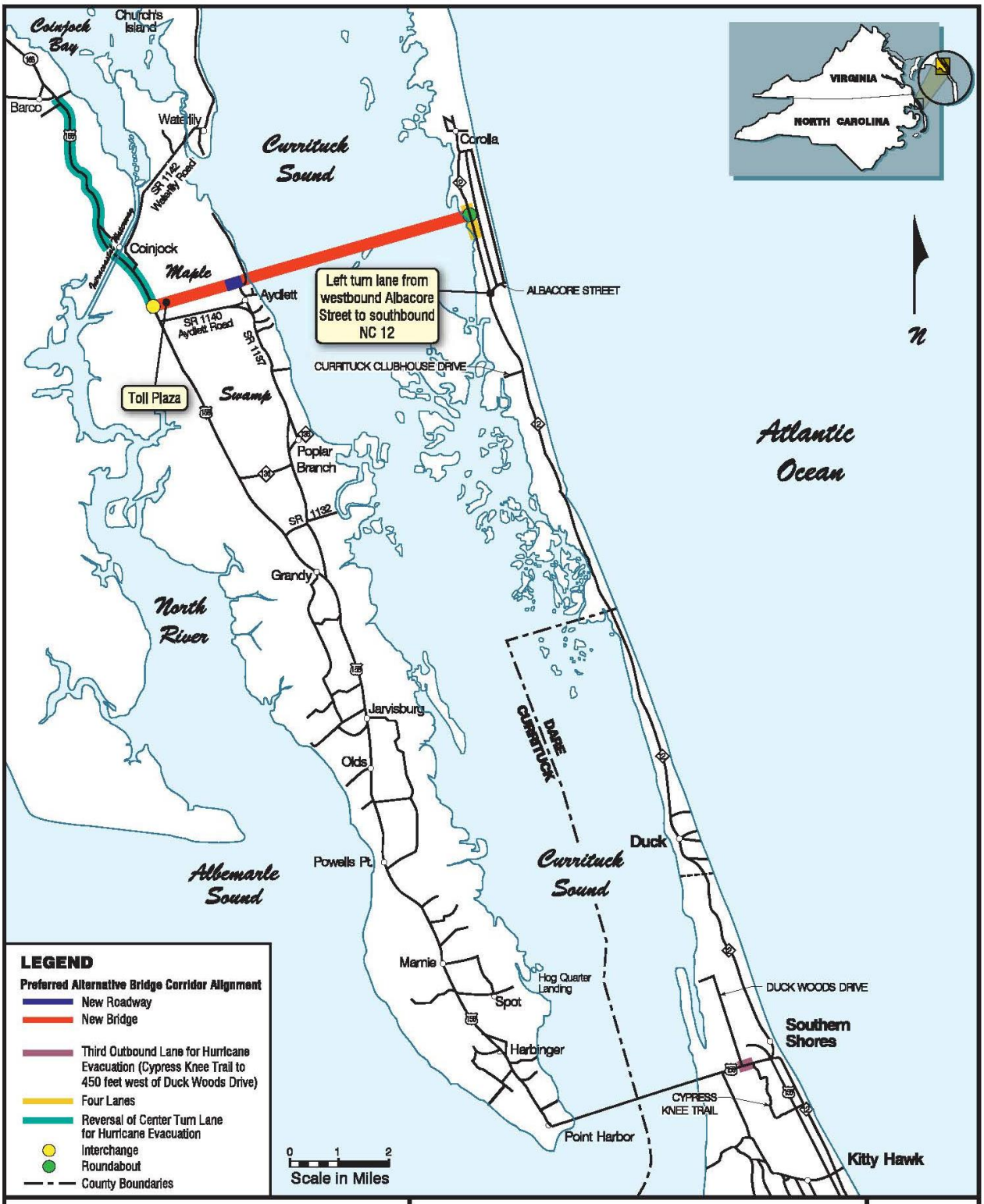
prepare an Environmental Impact Statement (EIS) for a bridge on July 6, 1995 (Federal Register Vol. 60, No. 129, page 3255). Planning studies were subsequently undertaken by NCDOT on behalf of the FHWA. Subsequent state legislation and highway planning strategies were developed or amended to incorporate the proposed Project, including the North Carolina Intrastate System and the North Carolina Strategic Highway Corridor System. These changes led to a decision to rescind the 1995 Notice of Intent and the 1998 DEIS" [Draft Environmental Impact Statement] (Page 8, Chapter 3 Cumulative Impact Report for Water Quality).

"The Project was reactivated in 2000, primarily in response to comments received during public hearings conducted in 1998, which resulted in a decision by NCDOT and FHWA to include a wider range of alternatives and to reevaluate the Project's purpose and need" (Page 8, Chapter 3 Cumulative Impact Report for Water Quality).

"In 2002, the North Carolina General Assembly passed legislation that created the NC Turnpike Authority. In 2005, legislation was enacted that directed NCTA to "contract with a single private firm to design, obtain necessary permits for, and construct the toll bridge described in NC Gen. Stat. §136-89.183(a)(2)." (Page 8, Chapter 3 Cumulative Impact Report for Water Quality)." A new Notice of Intent for preparation of an EIS for the Mid-Currituck Bridge was issued on June 16, 2008 (Federal Register Vol. 73, No. 116, page 34065). NCDOT reached an understanding with the agencies regarding the Project's purpose and need and on the alternatives to be studied in the DEIS at a TEAC [Turnpike Environmental Agency Coordination] meeting on July 8, 2008. A DEIS was prepared and signed on March 10, 2010 and the FEIS on January 12, 2012." (Page 9, Chapter 3 Cumulative Impact Report for Water Quality).

"In 2013, the North Carolina General Assembly, as part of the State [Strategic] Transportation Investment (STI) Law (Session Law 2013-183 and House Bill 817), withdrew the annual state appropriations ("gap funding") for the Mid-Currituck Bridge. Once funding for the Project was re-established, the 2012 FEIS was reevaluated to consider changes that may have occurred in the Project setting, travel demand, area plans, laws and regulations, and other information or circumstances since the 2012 FEIS was approved, in keeping with Title 23 CFR 771.129(b). The reevaluation found that the Project's purpose and need as outlined in the 2012 FEIS remained valid. The Reevaluation of the FEIS was published in 2019. The ROD for the Project was signed on March 6, 2019, signifying completion of the environmental study process." (Page 9, Chapter 3 Cumulative Impact Report for Water Quality).

Final hydraulic design of the project has been completed as well as 75% roadway design plans. The next step in the process is for the NCDOT and NCTA to seek a CAMA permit for the project from the North Carolina Division of Coastal Management (NCDCM). A separate permit application package will be provided to the US Army Corps of Engineers (USACE) for a Section 404 permit, as well as the accompanying Section 401 Water Quality Certification from the North Carolina Division of Water Resources (NCDWR). The Design-Build let date is tentatively set for June 2026.



Selected Alternative

Figure 1

4.0 Alternatives

The FEIS and the Reevaluation of the FEIS provide an extensive discussion and analysis of various alternatives for the Mid-Currituck Bridge project. An overview of that analysis is also included in a White Paper entitled "Identification of the Least Environmentally Damaging Practical Alternative (LEDPA), July 2020", which is attached as Attachment 7. Based on this analysis, the Selected Alternative is the LEDPA.

5.0 Impacts

Impacts to various waters of the United States are unavoidable in order to construct this project. These include fill material in and along the west bank of Currituck Sound to stabilize the shoreline in the vicinity of the bridge, as well as fill material in a small area of jurisdictional wetlands that are part of Maple Swamp or the Great Swamp complexes in order to construct the interchange, toll booth, Maple Swamp Bridge, access roads, or associated widening of existing roads. In addition to the permanent fill, temporary wetland impacts are proposed (see following sections for utility relocations and construction of the bridge over Maple Swamp).

5.1. Resources

The project is located in the Pasquotank River Basin (Hydrologic Unit 03010205). The project crosses tributaries of Waters of the U.S. (ditches), surface waters, and wetlands. Jurisdictional features in the western part of the project drain to Great Swamp or Maple Swamp, while features in the eastern part of the project drain to Currituck Sound. There are no Outstanding Resource Waters (ORW), High Quality Waters (HQW), WS-I waters, or WS-II waters within 1 mile upstream or downstream of the project or within the project area. There are no streams that flow through the project that are designated as National Wild and Scenic River or a State Natural and Scenic River.

Delineations of wetlands and other jurisdictional Waters of the U.S. were performed at various times during the planning of the project. The USACE issued a revised Preliminary Jurisdictional Determination (PJD) to NCDOT on October 17, 2023, with an Action ID of SAW-1995-02242. This PJD does not have an expiration date and superseded a PJD issued to NCDOT on March 12, 2018.

A Natural Resource Technical Report was prepared detailing these jurisdictional areas in December 2011 by CZR, Inc. for NCTA. A Natural Resources Technical Report Update (NRTR Update) was prepared in June 2023 by CZR, Inc (Attachment 8). Stream and wetlands for the Preferred Alternative were field verified in 2018 and 2023. The impact sites depicted in this application reflect the results of delineations for the 2011 Natural Resources Technical Report, the 2023 Natural Resources Technical Report Update, and the 2018 and 2023 PJD's. These jurisdictional areas within the project study area were reviewed in the field by USACE officials and NCDWR officials.

5.2. Types of Material being Discharged and Amount of Fill

According to the ROD (page 27) and the Reevaluation of the FEIS (page 5-28), the wetlands to be impacted have been determined by the regulatory agencies to be non-riparian wetlands. As shown on Table 1, construction will result in permanent fill in 1.18 acre of wetlands as well as temporary fill in 4.72 acres of wetlands. In addition, 0.03 acre of mechanized land clearing and

12.36 acres of impact from hand clearing will also occur (mostly for the Maple Swamp Bridge). In addition, there will be 0.23 acre of permanent impact to surface waters, primarily as a result of shoreline stabilization at the bridge location on the west shoreline of Currituck Sound and 0.04 acre of temporary impacts to surface waters. Finally, there will be 572 linear feet of permanent impacts are proposed to tributaries to Waters of the U.S. and 127 linear feet of temporary impact to tributaries to Waters of the U.S. These impacts are described in Table 1 and Table 2 below and are also shown on the project maps in Attachment 2. It is important to note that no coastal wetlands as defined by CAMA will be impacted by the project. Hydraulic permit drawings for the Selected Alternative, including wetland impacts, are shown in Attachment 2.

Table 1. Wetland Impact Summary - Project Construction

Permit Drawing Site Number	NRTR Label	Type	Permanent Wetland Impacts (ac.)	Temporary Wetland Impacts (ac.)	Mechanized Clearing in Wetlands (ac.)	Hand Clearing in Wetlands (ac.)	Mitigation Required[1]
1A	W010	Non-Riparian	0.02			0.05	Yes
1B	W010	Non-Riparian	0.02			0.07	Yes
1C	W010	Non-Riparian	<0.01			0.02	Yes
1D	W010	Non-Riparian	<0.01			0.02	Yes
1E	W010	Non-Riparian	0.13			0.07	Yes
3	W015	Non-Riparian	0.04	4.72	0.03	11.47	Yes
5	W090	Non-Riparian	0.26			0.08	Yes
6	W094	Non-Riparian	<0.01			<0.01	Yes
7	W097	Non-Riparian	<0.01			0.01	Yes
8	W011	Non-Riparian	0.24			0.14	Yes
9	W009	Non-Riparian	0.19			0.19	Yes
10	W008	Non-Riparian	0.18			0.18	Yes
11	W069	Non-Riparian	0.09			0.05	Yes
		Total*:	**1.18**	**4.72**	**0.03**	**12.36[2]**	

* Rounded totals are sum of actual impacts.

[1] Permanent wetland impacts only.

[2] 0.13 Acre of Temporary Fill will be provided for hand clearing areas for erosion control devices.

Site 1A - This site proposes to permanently impact 0.02 acre of wetlands for the localized widening and realignment of US 158 immediately south of the proposed interchange with the proposed bridge. In addition, 0.05 acre of wetlands will be hand cleared.

Site 1B - This site proposes to permanently impact 0.02 acre of wetlands for the localized widening and realignment of US 158 immediately south of the proposed wetland impact for Site 1A. In addition, 0.07 acre of wetlands will be hand cleared.

Site 1C - This site proposes to permanently impact less than 0.01 acre of wetlands for the realignment of US 158 north of the proposed interchange with the proposed bridge. In addition, 0.02 acre of wetlands will be hand cleared.

Site 1D - This site proposes to permanently impact less than 0.01 acre of wetlands for the realignment of US 158 north of the proposed interchange with the proposed bridge. In addition, 0.02 acre of wetlands will be hand cleared.

Site 1E - This site proposes to permanently impact 0.13 acre of wetlands for slope stabilization along the realignment of US 158 south of the proposed interchange with the proposed bridge. In addition, 0.07 acre of wetlands will be hand cleared.

Site 3 - This site proposes to permanently impact 0.04 acre of wetland for the bridge bents, with an additional 4.72 acres of temporary impacts and 11.47 acres of hand clearing in wetlands for the Maple Swamp bridge. There will also be 0.03 acre of mechanized clearing without fill at this site.

Site 5 - This site proposes to permanently impact 0.26 acre of wetlands as well as 0.08 acre of hand clearing in wetlands for the interchange and associated widening of NC 12 on the Currituck Outer Banks near the intersection of NC 12 and the proposed bridge.

Site 6 - This site proposes to permanently impact less than 0.01 acre of wetlands as well as less than 0.01 acre of hand clearing in wetlands for the interchange and associated widening of NC 12 on the Currituck Outer Banks near the intersection of NC 12 and the proposed bridge.

Site 7 - This site proposes to permanently impact less than 0.01 acre of wetlands as well as 0.01 acre of hand clearing in wetlands for the interchange and associated widening of NC 12 on the Currituck Outer Banks near the intersection of NC 12 and the proposed bridge.

Site 8 - This site proposes to permanently impact 0.24 acre of wetlands for the realignment of US 158 north of the proposed interchange with the proposed bridge. In addition, there will 0.14 acre of hand clearing in wetlands.

Site 9 - This site proposes to permanently impact 0.19 acre of wetlands for the realignment of US 158 north of the proposed interchange with the proposed bridge. In addition, there will be 0.19 acre of hand clearing in wetlands.

Site 10 - This site proposes to permanently impact 0.18 acre of wetlands for the realignment of US 158 north of the proposed interchange with the proposed bridge. In addition, there will be 0.18 acre of hand clearing in wetlands.

Site 11- This site proposes to permanently impact 0.09 acre of wetlands as well as 0.05 acre of hand clearing in wetlands for the interchange and associated widening of NC 12 on the Currituck Outer Banks near the intersection of NC 12 and the proposed bridge.

Table 2. Impacts to Surface Waters - Project Construction

Permit Drawing Site Number	NRTR Label	Type	Permanent Surface Water Impacts (ac.)	Temporary Surface Water Impacts (ac.)	Permanent Existing Channel Impacts (ft)	Temporary Existing Channel Impacts (ft)	Mitigation Required
2 (42" RCP-IV)	W010	Tributary	0.04	<0.01	228	9	Yes
2 (Bank Stabilization)	W010	Tributary	<0.01		10		No
4 (Shoreline Stabilization)	Currituck Sound	Currituck Sound	0.13		229		No
5 (Fill in Pond)			0.04	0.02			No
11 (Fill Slope)			0.02	0.03	105	118	No
		Total*:	**0.23**	**0.04**	**572**	**127**	

***** Rounded totals are sum of actual impacts.

Site 2 (42" RCP-IV) - This site is a jurisdictional tributary to Waters of the U.S. The project proposes permanent impact to 228 linear feet of the tributary to Waters of the U.S. during construction of a realignment of US 158.

Site 2 (Bank stabilization) - This site is a jurisdictional tributary to Waters of the U.S. The project proposes permanent impact to 10 linear feet of the tributary to Waters of the U.S. during construction of a realignment of US 158.

Site 4 (Shoreline stabilization) - This site proposes to add rip rap to stabilize 229 linear feet of the western shore of Currituck Sound at the location of the proposed bridge. This site is already unstable (with other locations of existing rip rap at various locations along the shoreline) and this impact is proposed to provide additional protection for the bridge location.

Site 5 – **(Fill in Pond) -** A small portion (0.04 acre) of an existing pond will need to be filled in for localized road widening.

Site 11 – (Fill Slope) – A small portion (0.02 acre) of slope of the existing pond will need to be filled.

5.3. Utility Relocations

There will be temporary wetland impacts from utility relocations and billboard removal as a result of the project. A total of approximately 0.062 acre of temporary fill will be needed in wetlands as well as up to 0.013 acre of hand clearing in wetlands as described in Table 3 below and as shown on utility permit drawings in Attachment 9. Additional information on utility relocations can be found in Attachment 10. Temporary fill will be removed after construction and impacted areas restored to pre-construction elevations. These temporary impacts are associated with the relocation of existing utilities that will be necessary for the localized widening of US 158 and the proposed interchange.

Table 3. Wetland and Surface Water Impact Summary - Utility Relocation

Permit Drawing Site Number	NRTR Label	Type	Permanent Fill in Wetlands (ac.)	Temporary Fill in Wetlands (ac.)	Hand Clearing in Wetlands (ac.)	Mitigation Required
U-1A	W010	Non-Riparian		0.002		No
U-1B	W010	Non-Riparian		0.001		No
U-1C	W010	Non-Riparian		0.001		No
U-1D	W010	Non-Riparian		<0.001		No
U-1E	W010	Non-Riparian		0.002		No
U-1F	W010	Non-Riparian		0.003		No
U-1G	W010	Non-Riparian		0.003		No
U-1H	W010	Non-Riparian		0.004		No
U-1I	W010	Non-Riparian		<0.001		No
U-1J	W010	Non-Riparian		0.004		No
U-1K	W008	Non-Riparian		0.006		No
U-1L	W010	Non-Riparian		0.010		No
U-1M	W010	Non-Riparian		0.014		No
U-1N	W010	Non-Riparian		0.012		No
U-2	W011	Non-Riparian			0.009	No
U-3	W009	Non-Riparian			0.004	No
		Total*:		**0.062**	**0.013**	

***** Rounded totals are sum of actual impacts.

5.4. Submerged Aquatic Vegetation Impacts

The project is predicted to directly impact 2,790 square feet (0.064 acre) of identified submerged aquatic vegetation (SAV) habitat, as defined by the North Carolina Marine Fisheries Commission, through the unavoidable placement of bridge supports; an additional 4,890 square feet (0.112 acre) of temporary impact from temporary open trestle piles will also occur within SAV habitat. Shading from the bridge will also lead to impacts to 389,464 square feet (8.941 acre) of SAV habitat. Shading from the temporary bridge deck will lead to impacts to 38,746 square feet (0.889 acre) of SAV habitat. These SAV impacts are shown in Attachment 11.

6.0 Avoidance and Minimization

Details on measures to avoid, minimize, and then compensate (mitigate) for unavoidable impacts of the project are described in detail in the FEIS, the Reevaluation of the FEIS, in Section 6.0 of the ROD, and in the Project Commitments in Appendix G of the Reevaluation of the FEIS Study Report. The Stormwater Management Plan also contains additional minimization efforts. Major efforts at minimization include:

- The extensive wetlands in Maple Swamp will be bridged rather than filled. Wetlands in the alignment of the Maple Swamp bridge will be hand-cleared and the final bridge will be about 10 feet above the surface of the wetland which will allow for free wildlife movement and passage of any flood waters under the bridge infrastructure. The inclusion

of a bridge rather than a causeway across Maple Swamp reduced the wetland fill acreage by 36 acres as indicated in the FEIS.

- Temporary construction trestles will be used in Currituck Sound for construction of the bridge in order to minimize impacts to SAV beds that exist now or have existed during the past 10 growing seasons in the Sound.
- Slopes were reduced to the maximum extent practical next to wetlands in order to minimize fill associated with these slopes.
- The US 158 interchange was configured to minimize impacts to wetlands to maximum extent practicable.
- Piles will be constructed through the use of pile-driving, with turbidity curtains surrounding the piles during construction. Jetting of piles is not proposed.
- It is not anticipated that the driving of test piles will take place within Maple Swamp.

7.0 Threatened and Endangered Species

The FEIS (January 12, 2012) contained an in-depth analysis and review of Threatened and Endangered Species and their potential habitats (Section 3.3; pages 37-71). In this FEIS, it was stated that the US Fish and Wildlife Service (USFWS) concurred with the biological conclusions for threatened and endangered species in a letter dated July 8, 2011, and that formal consultation was not needed. Additionally, the National Marine Fisheries Service (NMFS) concurred with the biological conclusions in a letter dated October 18, 2011, and that formal consultation was not needed. The Reevaluation of the FEIS, completed on March 6, 2019, contained a summary of Threatened and Endangered Species (pages 4.17 through 4.36).

The June 2023 NRTR Update (Attachment 8) reexamined impacts to Threatened and Endangered Species and their potential habitats (Section 3.1, pages 1-7). The NRTR Update determined that 17 federally protected species can be found in Dare and Currituck Counties. Habitat was determined to be present for 11 of those species in the project study area. The biological conclusion for the Preferred Alternative was that it “May Effect, Likely to Adversely Affect” the northern long-eared bat and the tricolored bat, and “May Affect, Not Likely to Adversely Affect” the west Indian manatee and the Atlantic Sturgeon. No effect was determined for the other 14 species that required a biological conclusion. See Table 4 below for further details obtained from the June 2023 NRTR Update.

Table 4. Federally listed threatened and endangered species for Dare and Currituck County, NC as reported from the NRTR Update for STIP R-2576.

Scientific Name	Common Name	Federal Status[1]	Habitat Present	Biological Conclusion[2]	
				USFWS Jurisdictional Species	NMFS Jurisdictional Species
				MCB2, MCB4, and Preferred Alternative	MCB2, MCB4, and Preferred Alternative
Myotis sepentrionalis	northern long-eared bat	T	Yes	MA-LAA	NA
Canis rufus	red wolf	E-EXPN	Yes	No Effect	NA
Perimyotis subflavus	tricolored bat	PE	Yes	MA-LAA	NA
Trichechus manatus	west Indian manatee	T	Yes	MA-NLAA	NA
Laterallus jamaicensis ssp. jamaicensis	eastern black rail	T	No	No Effect	NA
Charadrius melodus	piping plover	T	No	No Effect	NA
Calidris canutus rufa	red knot	T	No	No Effect	NA
Picoides borealis	red-cockaded woodpecker	E	Yes	No Effect	NA
Alligator mississippiensis	American alligator	T(S/A)	Yes	Not Required	NA
Chelonia mydas	green sea turtle	T	Yes	No Effect	No Effect
Eretmochelys imbricata	hawksbill sea turtle	E	No	No Effect	No Effect
Lepidochelys kempii	Kemp's ridley sea turtle	E	Yes	No Effect	No Effect
Dermochelys coriacea	leatherback sea turtle	E	No	No Effect	No Effect
Caretta caretta	loggerhead sea turtle	T	Yes	No Effect	No Effect
Acipenser brevirostrum	shortnose sturgeon	E	Yes	NA	No Effect
Acipenser oxyrhynchus oxyrhynchus	Atlantic sturgeon	E	Yes	NA	MA-NLAA
Amaranthus pumilus	seabeach amaranth	T	No	No Effect	NA

Source: USFWS, IPaC date checked on March 10, 2023

[1] T – Threatened
PE – Proposed Endangered
T(S/A) – Threatened because of similarity of appearance to American crocodile
E – Endangered
E-EXPN – Experimental population, Non-essential

[2] MA-NLAA – May Affect, Not Likely to Adversely Affect
NA-Not applicable; no biological conclusion required

The USFWS has issued a programmatic biological opinion (PBO) in conjunction with the FHWA, the USACE, and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. Although this PBO covers Divisions 1-8, The USFWS only considers NLEBs to be known or potentially found in 30 counties within Divisions 1-8. NCDOT, FHWA, and USACE have agreed to two conservation measures which will avoid/minimize mortality of NLEBs. These conservation measures only apply to the 30 current known/potential counties shown on Figure 2 of the PBO at this time. The programmatic determination for NLEB for the NCDOT program is May Affect, Likely to Adversely Affect. The PBO will ensure compliance with Section 7 of the Endangered Species Act for ten years (effective through December 31, 2030) for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Currituck County, where this project is located.

The USFWS has issued a programmatic conference opinion (PCO) in conjunction with the FHWA, the USACE, and NCDOT for the tricolored bat (TCB) (*Perimyotis subflavus*) in eastern North Carolina (Attachment 12). The PCO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. NCDOT, FHWA, and USACE have agreed to three conservation measures (listed in the PCO) which will avoid/minimize take to TCBs. These conservation measures apply to all counties in Divisions 1-8. The programmatic determination for TCB for the NCDOT program is May Affect, Likely to Adversely Affect. Once the TCB is officially listed, the PCO will become the PBO by formal request from FHWA and USACE. The PBO will ensure compliance with Section 7 of the Endangered Species Act for approximately five years (effective through December 31, 2028) for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Currituck County, where this project is located.

The Bald Eagle was evaluated for habitat and occurrence within the study area. A bald eagle nest survey was conducted for the Preferred Alternative in 2012. Suitable nest trees exist throughout the area and because this species is rebounding, and new nesting sites are expanding, the potential of new nests in the project area remains a possibility. The project area was surveyed for eagles and eagle nests near the project area during a February 2015 field reconnaissance. The February 2015 survey was limited to selected areas and along most of the public roads in the wetland reevaluation area. No potential eagle nests were detected; however, two sub-adult bald eagles were seen. An additional survey conducted in 2022 (Attachment 13) did not detect any bald eagles or nest within 600' of the project area. If any eagles were to nest within 660 feet of the project construction area, this activity could affect the timing of construction activities; this distance would be 0.5 mile in the case of loud, intermittent noises. Surveys would be appropriate once permits have been issued and before project construction to avoid and minimize potential disturbance and impacts to construction timing.

8.0 Cultural and Historic Resources

The FEIS (January 12, 2012) contained an in-depth analysis of cultural and historic resources for this project (Section 3.2; pages 3-24 to 3-30). The Reevaluation of the FEIS (March 6, 2019) contained a summary of the cultural resource issues (pages 2-2 and 4-16). This reevaluation concluded that there would be No Effect or No Adverse Effect on properties listed on or eligible for inclusion on the National Register of Historic Places. The reevaluation notes that the State Historic Preservation Office concurred with this conclusion in a July 20, 2015 letter with a confirmatory letter dated April 7, 2017.

9.0 Essential Fish Habitat

The FEIS (January 12, 2012) contained an in-depth analysis of essential fish habitat for this project (Section 3.3.7.2; pages 3-63 to 3-68) and concluded that the detailed study alternatives would not have a substantial long-term adverse impact on essential fish habitat (page 3-66). The Reevaluation of the FEIS (March 6, 2019) contained a summary of the essential fish habitat issue after review by the agencies (Section 4.3.7, pages 4-30 and 4-32). This reevaluation reached the same conclusions as the FEIS with respect to Essential Fish Habitat.

10.0 Stormwater Management Plan

A stormwater plan was developed by NCDOT after input from the regulatory agencies (primarily NCDWR) and is dated July 24, 2023. Details of the stormwater plan are in Attachment 14.

11.0 FEMA-Related Issues

With regards to FEMA issues, Moffatt & Nichol conducted a HEC_RAS Model Update for the Maple Swamp Bridge on October 22, 2020, to determine if the Maple Swamp Bridge had any flooding-related issues with respect to FEMA regulations (Attachment 15). In summary, the 2010 HEC-RAS model for the Maple Swamp Bridge was updated in 2019 with a 79-span bridge structure and more recent estimates of storm surge and Base Flood Elevations from FEMA FIRM panels. The 2019 HEC-RAS model has now been updated to the 2020 HEC-RAS model with an 80- span bridge structure. The model results indicate that for a 100-yr storm surge, the addition of the proposed bridge has a negligible impact on flood elevations on both the upstream and downstream sides of the proposed bridge. The maximum expected scour at the proposed bridge is 0.25 ft for the 100-yr storm surge condition and 0.97 ft for the 500-yr storm surge condition. Table 3 of Attachment 15 shows the 100-yr existing and proposed water surface elevation based on the inputs described above.

12.0 Sea Level Rise

The Mid-Currituck Bridge accounts for predicted sea level rise in Currituck Sound. In addition, the Cumulative Impact Study for Water Quality examined the effect of predicted sea level rise in the Outer Banks of Currituck County (Attachment 6, Section 12). Based on this analysis, little to no observable effects of sea level rise were predicted for the three Probable Development Areas in the 20-year time frame of the study, with respect to increased flooding or inundation from a rise in sea level.

In the context of the planned stormwater management, NCDOT has developed an adaptive management approach (Attachment 16). This approach involves making changes to stormwater strategies and facilities as needed as sea level rise gradually occurs over the project area over the next 20 years.

13.0 Wetland Mitigation

13.1. Compensatory Wetland Mitigation

NCDOT has decided to obtain compensatory mitigation credits for the permanent wetland impacts from the North Carolina Division of Mitigation Services (see Attachment 17).

13.2. Non-Compensatory Wetland Mitigation

In addition, NCDOT will be contacting landowners whose property, or a portion of their property, will be landlocked as a result of the project. This contact will be at the time of the right of way acquisition process for the project. Site visits were made in early August 2019 to the seven landlocked parcels with respect to wetland presence and quality (Attachment 18). If NCDOT acquires any of those landlocked parcels (assuming they are willing sellers), and if the sites contain wetlands, NCDOT will preserve those wetlands as an additional measure that is not compensatory wetland mitigation.

14.0 Submerged Aquatic Vegetation Mitigation

The SAV mitigation plan, which was revised in July, 2024 (Attachment 19) summarized the historical and current extent of SAV habitat in the area of the bridge. This report also presented a mitigation plan which was reviewed with the permitting agencies in interagency meetings on August 22, 2019, December 19, 2019, February 20, 2020, and August 19, 2020. This plan consists of continued monitoring of SAV presence and any effect of shading from the bridge along with five (5) specific options for any future compensatory mitigation as required by the permitting agencies. Attachment 20 is the United States Geological Survey (USGS) report on baseline water quality data in Currituck Sound which provides valuable information for SAV habitat. The final amount of SAV coverage that will require mitigation will be determined by the results of the approved monitoring plan.

15.0 Cumulative Impact Analysis for Water Quality

At the request mainly of the NCDWR, a comprehensive analysis for the cumulative impact of the project with respect to water quality over the next 20 years was initially completed in May 2021 and updated in May 2024 (see Attachment 6). Overall, the findings of this indirect and cumulative impacts report indicate that construction of the Mid-Currituck Bridge project is expected to result in minimal indirect or cumulative impacts to downstream water quality. Estimated impacts attributable to the Mid-Currituck Bridge are not expected to be of sufficient magnitude to cause a violation of state water quality standards or a loss of existing or anticipated uses in Currituck Sound or the Atlantic Ocean. The amount of induced development that can be attributed to the bridge (i.e., the difference between the Build and No Build Alternatives) is modest. However, over the course of preparing these studies, NCDOT identified several opportunities for improved water quality management. These options could be implemented by NCDWR or Currituck County if it is determined that these options are warranted, or to address issues arising from past land use management practices which currently affect water quality in Currituck County.

16.0 Cumulative Impact Analysis for Coastal Resources

In accordance with § 113A-120(a)(10) of CAMA, cumulative effects of a proposed project may be considered by NCDCM prior to making a final permit decision. While CAMA allows for a consideration of cumulative effects in CAMA Major Permit decisions, under the regulatory processes of the NCDCM, specific cumulative effects analyses have rarely, if ever, been prepared in support of individual CAMA Permit applications. However, the unique situation involving the construction of the Mid-Currituck Bridge warrants a separate cumulative effects analysis to supplement the CAMA Major Permit application package. The Mid-Currituck Bridge is not a bridge replacement project. Rather, it is the construction of a new location bridge that will serve a broad area not directly served by a bridge from the mainland of Currituck County. Additionally, portions of the Currituck County Outer Banks area are not heavily developed, especially the area generally north of Corolla not accessible by paved roads. It is for these unique reasons that the NCTA and the NCDOT decided that for this particular project a cumulative effects analysis of coastal resources would be prepared (see Attachment 21). Considering the unique circumstances leading to this decision, this analysis should not be considered to set a precedent for future transportation projects within North Carolina's coastal zone.

Several coastal resources (ORWs, Primary Nursery Areas, mitigation sites, public water supplies, and urban waterfronts) were dismissed from further analysis because they are not present within or adjacent to the three Probable Development Areas (PDAs). Given that the construction of the Mid-Currituck Bridge will have positive impacts on the transportation system within the three PDAs, an additional cumulative effects analysis on this coastal resource was not deemed necessary. Similarly, the expected enhanced and improved traffic flows within the three PDAs resulting from the construction of the Mid-Currituck Bridge suggests that there will not be adverse impacts to air quality. With regard to water quality resources, this analysis deferred to the Cumulative Impact Study for Water Quality, which contains a detailed analysis of the cumulative effects of the Mid-Currituck Bridge on water quality within the three PDAs.

With regard to coastal resources examined in greater detail, the cumulative effects analysis for each coastal resource, as well as a listing of North Carolina Coastal Resource Commission rules and additional resource protection suggestions that provide protection for the resource, are found in Section 3 of the Cumulative Impact Analysis for Coastal Resources.

17.0 Invasive Species Control Plan

Preparation of an invasive species control plan during construction planning was added as Commitment 11 to the Project Commitments in Appendix G of the Reevaluation of the FEIS. The invasive species control plan (see Attachment 22) was developed in accordance with FHWA's August 10, 1999, guidance on invasive species. In accordance with FHWA's guidance, the invasive species control plan includes a discussion of preventative measures or eradication measures for invasive species that will be taken on the project. Such measures may include the inspection and cleaning of construction equipment, commitments to ensure the use of invasive-free mulches, topsoil, and seed mixes, and eradication strategies to be deployed should an invasion occur. The invasive plants that must be addressed and the measures to be implemented to minimize their harm are based on the North Carolina Department of Agriculture and Consumer Services' list of noxious weeds (i.e., plants whose presence is detrimental to crops or other desirable plants, livestock, land, or other property, or is injurious to the public health).

This application package includes CAMA Permit application forms, permit drawings and supporting documentation. A separate permit application package is being submitted to the USACE and the NCDWR. The Turnpike Authority is available to provide you with additional information or arrange for a site visit, if so desired. A copy of this permit application and its distribution list will be posted on the NCDOT website at: https://xfer.services.ncdot.gov/pdea/PermApps/.

If you have any questions or need additional information, please contact Jennifer Harris at (919) 707-2704 or jhharris1@ncdot.gov. Thank you for your assistance.

Sincerely,

Michael Turchy

Michael Turchy, Group Leader
Environmental Coordination and Permitting [ECAP]
North Carolina Department of Transportation

Attachments:

1. CAMA Major Permit Application Forms
2. Wetland and Surface Waters Impacts Permit Drawings
3. Right-Of-Way Plans
4. Construction Narrative, February 21, 2024
5. R-2576 - Temporary Barge Mooring, June 2, 2021
6. Mid-Currituck Bridge Cumulative Impact Report for Water Quality, Revised May 2024
7. Identification of the Least Environmentally Damaging Practicable Alternative for the Mid-Currituck Bridge Project, June 2020
8. Natural Resources Technical Report Update- June 2023
9. Wetland Utility Impacts Permit Drawings
10. Utility Relocation Environmental Narrative, February 27, 2024
11. Submerged Aquatic Vegetation (SAV) Impact Drawings
12. Programmatic Conference Opinion – NCDOT Program Effects on the Tri-Colored Bat in Divisions 1-8 (FWS Log #:2023-0128204), November 20, 2023
13. Red-Cockaded Woodpecker and Bald Eagle Biological assessment for the Mid-Currituck Bridge, Currituck County, North Carolina January 31, 2023
14. Highway Stormwater Program, Stormwater Management Plan, July 24, 2023
15. HEC_RAS Model Update for the Maple Swamp Bridge (memo dated October 28, 2019, from Moffatt & Nichol to Roy Bruce, P.E.)
16. Sea level rise and groundwater impact on hydraulic design of stormwater management measures for the Mid-Currituck Bridge (memo dated February 4, 2020, from John Dorney to meeting attendees)
17. North Carolina Division of Mitigation Services Mitigation Letter
18. Landlocked Parcels Wetland Field Investigation, November 6, 2019
19. Mid-Currituck Bridge Submerged Aquatic Vegetation Mitigation Plan, Revised July, 2024
20. Characterization of Water-Quality and Bed-Sediment Conditions in Currituck Sound, North Carolina, Prior to the Mid-Currituck Bridge Construction, 2011-18, (USGS Water Quality Report), April 17, 2020
21. Mid-Currituck Bridge Cumulative Effects Report for Coastal Resources, June 2021
22. Invasive Species Control Plan
23. Riparian Property Owner Listing and Notification Receipts (please note that the notification receipts will be inserted by NCDOT at a later date after notifications to adjacent riparian property owners have been sent).