

US Army Corps Of Engineers Wilmington District

PUBLIC NOTICE

Issue Date: July 22, 2019 Comment Deadline: September 6, 2019 Corps Action ID #:2009-01603 TIP Project No. R-2553

The Wilmington District, Corps of Engineers (Corps) has received an application from the **North Carolina Department of Transportation (NCDOT)** regarding a potential future requirement for Department of the Army authorization **to discharge dredged or fill** material into waters of the United States associated with upgrading existing US 70 or constructing on new location, a four-lane, median-divided freeway with full control of access from US 70 between La Grange (in Lenoir County) and US 70 at Dover (at the Jones/Craven County line) near the City of Kinston, North Carolina.

Specific alternative alignments and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at

https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/

******Viewing the on-line version will better display color and grant the ability to view exploded views.

This public notice provides information on the various alternatives that are being considered for the subject project and also announces the availability of the Draft Environmental Impact Statement (DEIS) for the subject project. The DEIS comment period and this public notice comment period are the same with a deadline of **September 6, 2019**. The DEIS can be viewed on the Corps' website at:

https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Major-Projects Comments received from review of the DEIS will be utilized in the development of the Final Environmental Impact Statement (FEIS). The Corps is the lead federal agency for this project.

Applicant: North Carolina Department of Transportation (NCDOT) Ms. Heather Lane, Project Development Engineer 105 Pactolus Hwy 33, Greenville, NC 27834.

Authority

The Corps will evaluate this application to compare alternatives that have been carried forward for study pursuant to applicable procedures under Section 404 of the Clean Water Act (33 U.S.C. 1344).

In order to more fully integrate Section 404 permit requirements with the National Environmental Policy Act of 1969, and to give careful consideration to our required public interest review and 404(b)(1) compliance determination, the Corps is soliciting public comment on the merits of this proposal and on the alternatives evaluated in the DEIS. At the close of this comment permit, the District Commander will evaluate and consider the comments received as well as the expected adverse and beneficial effects of the proposed road construction to select the preliminary least environmentally damaging practicable alternative (LEDPA). The District Commander is not authorizing construction of the proposed US 70 improvements at this time. A final Department of the Army permit could be issued, if at all, only after our review process is complete, impacts to the aquatic environment have been minimized to the maximum extent practicable and a compensatory mitigation plan for unavoidable impacts has been approved.

Location

The North Carolina Department of Transportation (NCDOT) is proposing construction of Kinston Bypass, by upgrading US 70 from the existing freeway near La Grange, in Lenoir County, to the existing freeway near Dover in Jones County. The proposed improvements include a four-lane, median-divided freeway with full control of access in Lenoir, Jones, and Craven counties in North Carolina. The project is more specifically located around Latitude 35°15'31" N and Longitude 77°36'43" W.

The project vicinity and project study area are shown in Figure 1-1. The project study area is located mostly in Lenoir County in eastern North Carolina, with the eastern part of the project study area in Craven and Jones counties. The western boundary of the project study area follows the Lenoir/Wayne county boundary, where access of US 70 is fully controlled. The southern boundary cuts through Lenoir County south of Kinston following the Neuse River for approximately 5 miles, then continues southeast crossing NC 55, NC 11 (south of Deep Run), US 258, and US 58 in southern Lenoir County. The eastern edge of the project study area is about 16 miles east of Kinston near the Town of Cove City in Craven County, where US 70 includes full control of access. The northern boundary is common with the county between Greene and Lenoir counties. The boundary follows Beaver Creek as it crosses into Jones County all the way to NC 41 (north of Trenton).

Existing Site Conditions

The proposed project is located in the Southeastern Plains and Middle Atlantic Coastal Plain physiographic regions of the state and extends from Lenoir County to the Jones/Craven County line. The project area includes USGS Hydrologic Units (HU) 03020202, 03020203, and 03020204 of the Neuse River Basin. The Neuse River flows west-to-east through Kinston, dividing Lenoir County in half. Kinston, the county seat, is the largest city in Lenoir County with a population of close to 21,000.

Kinston has a mix of urban land uses that includes a central business district, office/institutional properties, residential neighborhoods, and commercial development. The most prominent land use throughout Lenoir County, excluding the urbanized area of

Kinston, is agriculture. Other land uses are undeveloped land including pasture, pine plantations and wetlands. There are clusters of residential development in and around the municipal areas and large-lot residential development spread throughout the rural areas. Commercial and industrial development areas exist as well, particularly around the area of the Global TransPark (GTP) and US 70 west of Kinston.

Jurisdictional waterways within the project area include the Neuse River, Falling Creek, Southwest Creek, Bear Creek, Mosley Creek, Buck Branch, Walters Mill Pond, Squirrel Creek, Whitley's Creek, White Mash Run, Gum Swamp Creek, Peter Creek, Clarks Branch, Lucy Branch, Spring Branch, Vine Swamp, Wheat Swamp Creek, Briery Run, Taylors Branch, Stonyton Creek, Yadkin Branch, Mott Swamp, Strawberry Branch, Jericho Run, Mill Branch, Heath Branch, Rattlesnake Branch, Beaverdam Branch, Bone Gray Branch, Mosley Creek, Harry's Branch, Tracey Swamp, Gum Swamp, Core Creek, Hallam Branch, Jumping Run, and/or tributaries to these waterways. The jurisdictional wetlands in the study area include both riparian and non-riparian wetland types.

There are no streams with Primary Nursery Area, Outstanding Resource Waters, or High Quality Waters designations within the detailed study alternative (DSA) corridors. The DSAs would not impact any designated Shellfish Growing Area waters. Portions of the Neuse River and Falling Creek contain Anadramous Fish Spawning Areas. The Neuse River also contains Inland Primary Nursery Area designation. Portions of the Neuse River, Bear Creek, and Squirrel Creek are part of a water supply watershed and designated as WS-IV, meaning they occur in a highly developed water supply watershed. Alternatives 35 and 36 would each result in impacts to streams within a WS-IV watershed.

Applicant's Stated Purpose

The purpose of the proposed action is to improve regional mobility, connectivity, and capacity for US 70 between La Grange and Dover in a manner that meets the intent of the North Carolina Strategic Transportation Corridors (STC) policy (previously the Strategic Highway Corridors policy). The stated needs addressed by the proposed project include; reduced traffic congestion, capacity deficiencies, and through-traffic delays on US 70 between La Grange and Dover.

Project Description

In order to meet the stated purpose and need of the project a number of alternatives were considered and studied. Alternatives considered for the proposed project include the No-Build Alternative, the Transportation System Management Alternative, the Travel Demand Management Alternative, the Mass Transit Alternative, and the build alternatives, including the Improve Existing Alternative.

This project went through the Section 404/National Environmental Policy Act (NEPA) Merger Process. This process engaged federal and state agencies throughout project development. Preliminary build alternatives were established through an evaluation of suitability mapping based on available socioeconomic, cultural, and environmental resource data. Preliminary build alternatives that met the purpose of and need for the proposed project and with the least impacts to the human and natural environments were identified as DSAs. The DSA selection process incorporated recommendations made by federal and state environmental regulatory and resource agencies and comments received from eight citizens informational workshops held (two each) in 2010, 2011, 2012, and 2014. Additionally, four small group meetings were held in 2013.

Designs for the 12 DSAs were developed based upon the *Traffic Forecast Technical Memorandum, Kinston Bypass Alternatives Study, TIP Project R-2553, Lenoir, Jones & Craven Counties* and the Traffic Capacity Analysis Report. The level of design used to develop the DSAs included interchanges, obvious service roads, and areas where full control of access is being proposed. These designs have been used to evaluate impacts to the human and natural environments for each of the DSAs. Information presented in the DEIS will be used, along with resource agency and public input, to assist in the selection of the preliminary LEDPA.

Project alternatives were further refined as more comprehensive information was obtained through detailed field studies and environmental analysis. The 12 DSAs are shown in Figure 2-8 from the DEIS and described below:



Kinston Bypass Current Detailed Study Alternatives (R-2553)

Alternatives 1 UE and 1 SB

Alternatives **1UE** begins at the western terminus of the project at the NC 903/US 70 interchange south of La Grange. Alternative 1UE follows existing US 70 for approximately 21 miles from the NC 903/US 70 interchange south of La Grange to the project terminus east of Dover and would upgrade the existing US 70 to a full control of access highway. The definition of upgrading an existing facility refers to a widening of the roadway to include adequate capacity to handle the forecasted traffic and provide for full control of access. Interchanges would provide access to other major roads and would be located at the following points: Willie Measley Road/Jim Sutton Road, Albert Sugg Road/Barwick Station Road, NC 148 (C.F. Harvey Parkway, US 258, US 258/US 70 Business (West Vernon Avenue), NC 11/NC55, US 258 (South Queen Street), NC 58 (Trenton Highway), Wyse Fork Road (SR 1002)/Caswell Station Road (SR 1309), and Old US 70 (West Kornegay Street).

Alternative **1SB** also begins at the NC 903/US 70 interchange in La Grange and would follow existing US 70 for approximately 7 miles to just east of NC 148 (C.F. Harvey Parkway). Interchanges would be located at Willie Measley Road/Jim Sutton Road, Albert Sugg Road/Barwick Station Road, and NC 148. A new interchange east of NC 148 would provide access to the shallow bypass section of Alternative 1SB, which would parallel existing US 70 to the south on new location for approximately 6.5 miles. Interchanges along Alternative 1SB would be located at NC 11/NC 55, US 258 (South Queen Street), and NC 58 (Trenton Highway). A new interchange east of Lenoir Community College would connect the shallow bypass back to existing US 70. Alternative 1SB would follow existing US 70 to a full control of access highway with interchanges at Wyse Fork Road (SR 1002)/Caswell Station Road (SR 1309) and Old US 70 (West Kornegay Street). Alternative 1SB is 21.1 miles in length.



Alternatives 11 and 12

Alternatives 11 and **12** begin at the western terminus of the project at the NC 903/US 70 interchange south of La Grange and follow existing US 70 for approximately 7 miles to the NC 148/US 70 interchange. Interchanges would be located at Willie Measley Road/Jim Sutton Road, Albert Sugg Road/Barwick Station Road, and NC 148. At NC 148, both alternatives turn south and then east on new location for approximately 9.5 miles with interchanges at NC 11/NC 55, US 258, and NC 58. The alternatives cross NC 58 just south of Southwood Elementary School before diverging east of NC 58.

Alternative 11 continues eastward on new location with an interchange at Wyse Fork Road (SR 1002), approximately 1.25 miles south of existing US 70, before interchanging with existing US 70 near Old US 70 just west of Dover. Alternative 11 would include upgrades to existing US 70 between this interchange and the project terminus east of Dover. Alternative 11 is 23.2 miles in length. Alternative 12 would turn back to the north to interchange with existing US 70 just east of the Lenoir/Jones county line at Wyse Fork Road (SR 1002) and would upgrade existing US 70 to the project terminus east of Dover with an interchange at Old US 70 (West Kornegay Street). Alternative 12 is 23.4 miles in length.



Alternatives 31 and 32

Alternatives 31 and 32 begin at the western terminus of the project at the NC 903/US 70 interchange south of La Grange and follow existing US 70 for approximately 4.5 miles, with an interchange at Willie Measley Road/Jim Sutton Road, to near where Harold Sutton Road intersects with existing US 70. At this point, a new interchange would provide access to the new location alternatives, which would travel southeast on new location. A new connector approximately 1.5 miles long would connect north to the US 70/NC 148 interchange. From the Neuse River crossing to US 58, Alternatives 31 and 32 are the same as Alternatives 11 and 12, including interchanges at NC 11/NC 55, US 258, and NC 58. East of NC 58, Alternative 31 is the same as Alternative 11, and Alternative 32 is the

same **as Alternative 12.** Alternative 31 is 22 miles in length. Alternative 32 is 22.1 miles in length.



Alternatives 35 and 36

Alternatives 35 and 36 begin at the western terminus of the project at the NC 903/US 70 interchange south of La Grange and follow existing US 70 for approximately 2.25 miles, with an interchange at Willie Measley Road/Jim Sutton Road, to Albert Sugg Road. A new interchange here would allow both alternatives to diverge onto new location and travel to the south. Interchanges would be located at NC 55 (about 4 miles west of the split with NC 11), NC 11 (about 2.75 miles south of the split with NC 55), US 258 (just north of Woodington Middle School), and NC 58 (just south of Southwood Road). The alternatives swing back to the north before diverging at Cobb Road. East of Cobb Road, Alternative 36 is the same as Alternatives 11, 31, 65, and 51. Alternative 36 is 25.0 miles in length. Alternative 35 continues northeast on new location, and from Wyse Fork Road eastward is the same as Alternatives 12, 32, 63, and 52. Alternative 35 is 25.3 miles in length.



Alternatives 51 and 52

Alternatives 51 and 52 begin at the western terminus of the project at the NC 903/US 70 interchange south of La Grange and follow existing US 70 for approximately 2.25 miles, with an interchange at Willie Measley Road/Jim Sutton Road, to Albert Sugg Road. A new interchange here would allow both alternatives to diverge onto new location and travel to the south. Interchanges would be located at NC 55 (about 2.75 miles west of the split with NC 11), NC 11 (about 1.5 miles south of the split with NC 55), and US 258. East of US 258, Alternative 51 is the same as Alternatives 11, 31, and 65, and Alternative 52 is the same as Alternatives 12, 32, and 63. Alternative 51 is 22.6 miles in length. Alternative 52 is 22.7 miles in length.



Alternatives 63 and 65

Alternatives 63 and 65 begin at the western terminus of the project at the NC 903/US 70 interchange south of La Grange and follow existing US 70 for approximately 4.5 miles, with an interchange at Willie Measley Road/Jim Sutton Road, to near where Harold Sutton Road intersects with existing US 70. At this point, a new interchange would provide access to the new location alternatives, which would travel south and then east on new location. A new connector approximately 2 miles long would connect north to the US 70/NC 148 interchange. From east of the Neuse River crossing, Alternative 63 is the same as Alternatives 12 and 32, and Alternative 65 is the same as Alternatives 11 and 31. Alternative 63 is 22.2 miles in length. Alternative 65 is 22.1 miles in length.



Waters of the United States

The proposed project would impact water resources in the study area. Impacts to wells, streams, ponds, wetlands, and floodplains would be expected. Water resources in the study area are part of the Neuse River basin (U.S. Geological Survey [USGS] Hydrologic Units 03020202, 03020203, and 03020204).

The DEIS includes additional details about Waters of the U.S.

Cultural Resources

As determined by the USACE and in coordination with NCDOT and the North Carolina State Historic Preservation Office (SHPO) at an effects meeting on November 28, 2017, the Kinston Bypass project DSAs may have adverse effects on historic architectural resources. The USACE determined that 15 historic properties within the project's area of potential effects (APE) were listed in the National Register of Historic Places (NRHP), NRHPeligible, or contained contributing components within an NRHP-listed historic district.

Potential archaeological sites within the DSAs were identified using background research and analysis in conjunction with a descriptive predictive model to identify areas of high-

and low-probability for containing archaeological sites. Underwater archaeological studies will be conducted once the applicant's preferred alternative is selected to define specific river crossing locations. Based on an October 2017 update of the archaeological predictive model results, Alternatives 1UE, 1SB, 12, 32, and 63 have the most potential to encounter and affect archaeological resources. Conversely, Alternatives 35, 36, 51, and 65 have the least potential to affect archaeological resources. Five sites associated with the First Battle of Kinston are not anticipated to be impacted by any of the DSAs. However, seven of the DSAs may impact archaeological resources of the Second Battle of Kinston/Wyse Fork Battlefield site.

Impact Summary Table

A breakdown of DSA impacts and costs are displayed in the table on the next page.

Table 1. Summary Comparison of Current Detailed Study Alternatives

	Alternative 1UE	Alternative 1SB	Alternative 11	Alternative 12	Alternative 31	Alternative 32	Alternative 35	Alternative 36	Alternative 51	Alternative 52	Alternative 63	Alternative 65
General												
Length (miles)	24.5	24.5	26.5	26.7	25.3	25.5	28.6	28.3	25.9	26.1	25.6	25.4
Intelligent transportation system cost (\$)	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
Utility cost (\$)	\$12,830,000	\$10,800,000	\$9,130,000	\$9,430,000	\$7,840,000	\$8,080,000	\$8,620,000	\$7,980,000	\$7,930,000	\$9,880,000	\$7,880,000	\$7,630,000
Right-of-way cost (\$)	\$183,070,000	\$123,710,000	\$78,330,000	\$85,050,000	\$63,340,000	\$66,990,000	\$65,490,000	\$64,200,000	\$54,560,000	\$57,380,000	\$64,010,000	\$61,180,000
Construction cost (\$)	\$245,900,000	\$292,800,000	\$284,100,000	\$299,000,000	\$284,200,000	\$288,900,000	\$290,400,000	\$297,800,000	\$296,200,000	\$275,800,000	\$355,900,000	\$358,900,000
Mitigation cost (\$)	\$12,940,000	\$12,250,000	\$12,130,000	\$13,390,000	\$12,290,000	\$13,550,000	\$13,940,000	\$12,810,000	\$11,720,000	\$12,980,000	\$13,440,000	\$12,180,000
Total cost (\$)	\$455,190,000	\$440,010,000	\$384,140,000	\$407,320,000	\$368,120,000	\$377,970,000	\$378,900,000	\$383,240,000	\$370,860,000	\$356,490,000	\$441,680,000	\$440,340,000
Socioeconomic Resources												
Residential (#)	125	162	95	101	76	92	130	113	97	113	98	80
Business (#)	137	67	35	40	30	37	32	27	26	32	36	30
Non-Profit (#)	0	0	0	0	0	0	0	0	0	0	0	0
Total (#)	262	229	130	141	106	129	162	140	123	145	134	110
Communities (#)	3	3	2	3	3	3	5	5	3	3	3	3
Environmental Justice residential areas (#)	4	6	2	3	2	3	5	4	4	5	4	3
Minority block groups (#)	2	0	0	0	0	0	0	0	0	0	0	0
Low income block groups (#)	6	3	3	3	3	3	3	3	3	3	3	3
Schools (#)	1	1	0	0	0	0	0	0	0	0	0	0
Hospitals (#)	0	0	0	0	0	0	0	0	0	0	0	0
Churches (#)	9	6	1	1	1	1	1	1	0	0	1	1
Fire departments (#)	1	1	1	2	1	2	1	0	1	2	2	1
Emergency Medical Services stations (#)	0	0	0	0	0	0	0	0	0	0	0	0
Airports (#)	0	0	0	0	0	0	0	0	0	0	0	0
Parks and recreational areas (#)	1	0	0	0	0	0	0	0	0	0	0	0
Cemeteries (#)	2	1	1	0	1	0	2	2	1	0	0	1
VADs (#)	0	0	0	0	0	0	1	1	0	0	0	0
VADs (ac)	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0	0.0
NCNHP managed areas (ac)	6.0	2.3	0.0	0.0	6.1	6.1	0.0	0.0	0.0	0.0	0.0	0.0
Prime farmland (ac)	282.2	302.3	392.5	422.4	404.3	434.0	432.4	415.2	410.3	440.1	420.5	390.6
Farmland of statewide importance (ac)	172.2	222.5	236.8	210.2	263.7	236.6	203.4	225.6	224.4	198.3	218.2	243.7
Farmland of unique importance (ac)	53.3	53.3	56.8	56.8	51.7	51.7	47.3	47.3	48.8	48.8	51.7	51.7
Economic Resources												
Annual total net benefits (quantified 2040)	\$22.5 million	\$23.4 million	\$4.9 million									
Physical Resources												
Noise receptors impacted	38	56	34	37	41	44	23	21	24	27	41	38
Hazardous materials sites (#)	18	9	9	10	7	8	6	5	5	6	8	7
Cultural Resources												
Section 106 adverse effects	2	2	3	4	6	7	2	1	1	2	6	5
Archaeological sites - high probability (ac)*	649.8	829.3	628.9	753.6	590.3	714.3	626.1	526.3	516.8	641.8	668.4	542.8

	Alternative 1UE	Alternative 1SB	Alternative 11	Alternative 12	Alternative 31	Alternative 32	Alternative 35	Alternative 36	Alternative 51	Alternative 52	Alternative 63	Alternative 65
Archaeological sites - low probability (ac)*	570.6	480.1	684.37	583.9	688.0	588.4	816.9	883.1	756.4	657.2	664.7	763.9
Natural Resources												
Maintained/Disturbed (ac)	706.2	516.6	264.2	346.3	242.3	324.3	312.7	230.1	214.9	297.6	315.5	232.8
Agriculture (ac)	317.9	507.9	672.2	689.6	664.6	682.3	714.1	699.9	637.3	655.6	667.8	648.9
Pine Plantation (ac)	73.0	148.5	246.7	193.0	242.6	188.7	265.3	305.1	266.1	212.4	211.3	265.1
Forested Upland (ac)	21.5	25.3	28.0	19.9	27.9	19.7	29.7	38.0	34.2	26.0	19.4	27.6
Palustrine Wetland (ac)	98.3	97.4	98.2	86.6	97.0	85.4	117.3	130.7	115.1	103.5	114.8	126.3
Open Water (ac)	3.5	13.7	3.9	2.3	3.9	2.3	4.0	5.6	5.6	4.0	4.3	5.9
Total biotic resources (ac)	1220.4	1309.4	1313.2	1337.7	1278.3	1302.7	1443.1	1409.4	1273.2	1299.1	1333.1	1306.6
Stream crossings (#) ^a	43	44	45	50	41	45	42	40	38	42	45	41
Stream length (ft) ^a	32,057	33,112	26,771	33,864	26,620	33,699	31,295	24,888	23,638	30,717	31,368	24,289
100-year floodplain (ac) ^b	358.6	147.7	95.2	83.9	109.0	97.7	52.1	62.3	73.4	62.1	139.1	150.4
500-year floodplain (ac) ^c	75.0	130.8	23.9	23.9	21.7	21.7	40.2	40.2	46.2	46.2	29.2	29.2
Total floodplains (ac) ^d	433.6	278.5	119.1	107.8	130.7	119.4	92.3	102.5	119.6	108.3	168.3	179.6
Floodway (ac) ^e	35.6	0.6	1.8	1.9	1.1	1.1	0.1	0.1	1.1	1.1	1.2	1.2
Riparian wetland ^a	74.1	41.2	68.5	55.1	66.5	53.2	41.6	55.4	60.4	47.1	74.5	87.9
Non-riparian wetland ^a	11.8	24.2	49.4	37.4	60.1	48.1	107.4	116.4	81.8	69.8	37.7	49.7
Total wetland impacts (ac) ^a	85.9	65.	117.9	92.5	126.6	101.3	149	171.8	142.2	116.9	112.2	137.6

^a Archaeological sites, stream, and wetland impacts were calculated using GIS predictive modelling.

^b The 100-year floodplain is a flood that has a 1 percent chance of being equaled or exceeded in any given year.

^c The 500-year floodplain is a flood that has a 0.2 percent chance of being equaled or exceeded in a given year.

^d Total floodplains is the total acreage of 100- and 500-year floodplains within each alternative corridor.

^e Floodways are FEMA regulated areas that include the channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Federally Threatened and Endangered Species

As of October 4, 2018, the USFWS lists three federally protected species for Lenoir County; as of April 25, 2018, nine federally protected species for Craven County; and as of June 27, 2018, three federally protected species for Jones County (see Table 2 below).

Scientific Name	Common Name	Federal Status ^a	County	Biological Conclusion
Alligator mississippiensis	American alligator	T(S/A)	Craven, Jones	Not Required
Acipenser oxyrhynchus oxyrhynchus	Atlantic sturgeon	Е	Lenoir, Craven, Jones	Not Required
Chelonia mydas	Green sea turtle	Т	Craven	No Effect
Dermochelys coriacea	Leatherback sea turtle	Е	Craven	No Effect
Picoides borealis	Red-cockaded woodpecker	Е	Lenoir, Craven, Jones	Unresolved
Trichechus manatus	West Indian manatee	Е	Craven	No Effect
Lysimachia asperulaefolia	Rough-leaved loosestrife	Е	Craven	No Effect
Aeschynomene virginiana	Sensitive joint-vetch	Т	Lenoir, Craven	No Effect
Calidris canutus rufa	Rufa red knot	Т	Craven	No Effect
Myotis septentrionalis	Northern long-eared bat	Т	Lenoir, Craven, Jones	MALAA ^b

Table 2. Federally-Protected Species Effects

 a E – Endangered; T – Threatened; T(S/A) – Threatened Due to Similarity in Appearance

^b MALAA: May affect, likely to adversely affect

Several other species are currently under consideration for Federal Threatened and Endangered Species protection status and will be further evaluated in the FEIS.

Anadromous Species

Suitable habitat is present for the Atlantic sturgeon, an anadromous fish, within the entirety of the Neuse River in the study area. The Neuse River within Lenoir and Craven counties is listed as one of the Atlantic sturgeon critical habitat rivers in the Southeast US. Additionally, the Neuse River and most of its associated tributaries are also designated as anadromous fish spawning areas for other species such as Striped Bass (*Morone saxatilis*) and Blueback Herring (*Alosa spp*).

Mitigation Evaluation

Mitigation has been defined in the NEPA regulations to include efforts that: a) avoid; b) minimize; c) rectify; d) reduce or eliminate; or e) compensate for adverse impacts to the environment [40 CFR 1508.20 (a-e)]. Practicable alternative analysis must be fully evaluated before compensatory mitigation can be discussed.

Avoidance and Minimization

During the development of the DSAs, efforts were made to avoid and minimize impacts to resources wherever practicable while meeting the purpose of, and need for, the project.

Impacts to wetlands and streams were considered during the selection of the current DSAs. Alignments for the alternatives have been developed within the study corridors that minimize impacts to streams and wetlands. The NEPA/Section 404 Merger Team has concurred on the streams that should be bridged by the DSAs. NCDOT will attempt to avoid and minimize impacts to streams and wetlands to the greatest extent practicable in selecting the preferred alternative and during project design.

Preliminary alternative segments were established through an evaluation of suitability mapping based on available socioeconomic, cultural, and environmental resource data. Combining the preliminary alternative segments resulted in over 3,000 preliminary alternatives. In order to reduce the number of possible alternatives to a more manageable number, similar adjacent segments were consolidated. The consolidation of adjacent segments resulted in approximately 300 best fit segments. The best fit segments were then reviewed and modified to prohibit any non-allowable combinations (i.e., segments were not allowed to double back, go backwards, or make 90-degree turns). These modifications resulted in 89 segments, which were combined to create 95 preliminary alternatives. The alternatives were further refined by combining similar segments with the least amount of impact. The 95 preliminary alternatives were screened for suitability based on several criteria, including meeting the purpose and need of the proposed project, minimizing impacts to resources, and consideration of community features. Geographic information system (GIS) data and modeling, aerial photography and observations from field visits were used in the analysis. Impacts were then calculated using 500-foot corridors for each alternative using GIS.

The 95 preliminary alternatives were then re-evaluated, resulting in 41 preliminary alternatives. Following public input and a Merger Team meeting, the 41 preliminary alternatives were reduced to 21 preliminary alternatives that were carried forward for further study as DSAs. Further studies, meetings, and Merger discussions resulted in the final 12 DSAs have the least impacts by section for each alignment and the sections with the least overall impacts were retained and combined into alignment alternative segments. The segment centerlines were buffered and several 1,000-foot corridor alternatives were generated by merging the segments in different combinations. Roadway alignments were developed and placed within the 1,000-foot corridors to minimize impacts to resources, provide a roadway that is constructible, and crosses roads, streams and utility easements at a reasonable angle.

Preliminary build alternatives meeting the purpose of and need for the proposed project and with the least impacts to the human and natural environments were identified as detailed study alternatives. Preliminary design plans were developed for alternatives selected for detailed study. The DSA selection process incorporated recommendations made by federal and state environmental regulatory and resource agencies and comments received from the eight citizen's informational workshops and four small group meetings.

Compensatory Mitigation

The NCDOT will investigate potential on-site stream and wetland mitigation opportunities once the preferred alternative has been selected and all possible measures to avoid and minimize impacts to the aquatic environment have been explored. Offsite mitigation needed to satisfy the federal Clean Water Act requirements for this project will be provided by the North Carolina Department of Environment and Natural Resources' Division of Mitigation Services (DMS) in accordance with their current In-Lieu Fee Mitigation Instrument.

Evaluation

The decision whether to issue a permit (which will come after the completion of the FEIS and Record of Decision) will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the

public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidate state viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to select the preliminary LEDPA. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of a Corps of Engineers FEIS pursuant to the NEPA. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Written comments pertinent to the proposed work, as outlined above, will be received by the US Army Corps of Engineers, Wilmington District, until 5pm, September 6, 2019. Comments should be submitted to Mr. Tom Steffens, Washington Regulatory Field Office, 2407 West 5th Street, Washington, North Carolina, 27889 or to thomas.a.steffens@usace.army.mil.