

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER GOVERNOR JAMES H. TROGDON, III Secretary

February 27, 2017

U.S. Army Corps of Engineers Raleigh Regulatory Field Office 3331 Heritage Trade Drive, Suite 105 Wake Forest, NC 27587

ATTN: Mr. David Bailey NCDOT Division 7 Project Coordinator

SUBJECT: Phased Permit Application for Section 404 Individual Permit and Section 401 Water Quality Certification for the proposed relocation of NC 119 from Interstate 40/85 to north of SR 1918 (Mrs. White Lane) in Mebane (Mebane Bypass), Alamance County, North Carolina, Division 7. Federal Aid Project No. STP-119 (1), TIP No. U-3109.

Debit \$570.00 from WBS 34900.1.2

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to improve NC 119 from the Interstate 40/85 (I-40/I-85) interchange southwest of downtown Mebane to the existing SR 1962 (3rd Street) Extension. The project then proceeds onto new location, relocating NC 119 to the west and north of downtown Mebane before tying into existing NC 119 just south of SR 1918 (Mrs. White Lane). The project terminates just north of Mrs. White Lane. The new location portion of NC 119 will be constructed as a four-lane, median-divided facility. Existing NC 119 in the vicinity of I-40/I-85 is proposed to be widened to six-lanes. Improvements to a portion of SR 1997 (Corrigidor Road), including realignment to the east of its existing location and connecting it to SR 1973 (Tate Avenue) near the Mebane Wastewater Treatment Plant (WWTP), are also included in the project. In addition, SR 1970 (Roosevelt Street) would tie into the proposed Corrigidor Road realignment just north of the City of Mebane Maintenance Yard.

The project, also known as the Mebane Bypass, is comprised of two sections. Section A, which is approximately 3.3 miles in length, will begin near the I-85/I-40 interchange and end north of SR 1921/SR 1996 (Mebane Rogers Road/East Stagecoach Road). Section B, which is approximately 1.5 miles in length, will begin north of Mebane Rogers Road/ East Stagecoach Road and end north of Mrs. White Lane.

Telephone: (919) 707-6000 Fax: (919) 212-5785 Customer Service: 1-877-368-4968 Website: www.ncdot.gov

Location: 1020 Birch Ridge Drive Raleigh NC 27610 Please see the enclosed ENG 4345, North Carolina Division of Mitigation Services (DMS) mitigation acceptance letters, South Buffalo Creek Mitigation Site debit ledger insert for wetland impacts to Section A; meeting minutes for Concurrence Points 4B and 4C, Memorandum Of Agreement between the Federal Highway Administration (FHWA) and the North Carolina State Historic Preservation Officer (dated October 12, 2009), State Historic Preservation Office (SHPO) Consultation on Archaeological Issues (dated January 27, 2003), SHPO Addendum to the Archaeological Study for U-3109 (dated January 4, 2005), State Stormwater Management Plan (SMP), final permit drawings for Section A, preliminary permit drawings for Section B, and roadway design plans for Section A.

PROJECT SCHEDULE

This project will be permitted in two phases, Sections A and B. Impacts reported in this application for Section A are based on final design. Section A currently has a let date of May 16, 2017 and a let review date of March 28, 2017.

Impacts reported in this application for Section B are based on preliminary design. A request for modification of the initial permit will be submitted for Section B once final design is available and prior to its proposed let date. Section B currently has a let date of October 19, 2021 and a let review date of August 31, 2021. The let date for Section B may advance as additional funds become available.

PURPOSE AND NEED

The primary needs of the proposed action include the following:

- Capacity deficiencies;
- Lack of connectivity within the local community;
- Lack of efficient north-south routes through Mebane due to development patterns.

The primary purposes of the proposed action include the following:

- Reduce traffic congestion in downtown Mebane;
- Improve access to the local area;
- Provide Alamance County a primary north-south route.

A more thorough description of the purpose and need for this project can be found in the Final Environmental Impact Statement (FEIS, June 2009), pages 1-2 to 1-4.

NEPA DOCUMENT STATUS

A Draft Environmental Impact Statement (DEIS) and Draft Section 4(F) Evaluation were completed for this project in August 2007. Subsequently, a FEIS and Final Section 4(F) Evaluation were completed in June 2009. The Record of Decision (ROD) was completed

in December 2009. A FEIS re-evaluation was completed in July 2013. Most recently, a Right-of-Way (ROW) Consultation was completed in October 2014. Additional copies are available upon request.

In compliance with the NEPA/404 Merger Process, Concurrence Points (CP) 3 and 4A were reached on June 19, 2008. Alternative 9 (the Preferred Alternative) was selected as the Least Environmentally Damaging Practicable Alternative (LEDPA) at CP 3. CP 4B was reached for Section A on July 25, 2013 and CP 4C was reached on May 14, 2015. CPs 4B and 4C will be held for Section B at future dates.

Re-evaluation of LEDPA

As shown below, there is a significant increase in the amount of Section A permanent impacts between those reported in the FEIS and the final design. Therefore, in a letter to the U.S. Army Corps of Engineers (USACE) dated February 9, 2017, NCDOT provided an explanation of the impact difference, as well as a re-evaluation of the three alternatives presented in the FEIS with the current impacts considered. After re-evaluating all three alternatives, NCDOT concluded that Alternative 9 is still the LEDPA for this project. In an email dated February 13, 2017, USACE agreed with this assessment and determined that a CP 3 revisit meeting is unnecessary and that the project can go forward with permit evaluation through the Individual Permit process. In that same email, USACE also asked the Merger Team whether they agreed with this conclusion; all team members responded in agreement that Alternative 9 is still the LEDPA.

INDEPENDENT UTILITY

The subject project is in compliance with 23 CFR Part 771.111(f), which lists the FHWA characteristics of independent utility for a project:

- 1) The project connects logical termini and is of sufficient length to address environmental matters on a broad scope;
- 2) The project is usable and a reasonable expenditure, even if no additional transportation improvements are made in the area;
- 3) The project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

RESOURCE STATUS

Water Resource Classifications

The study area lies within the Piedmont physiographic province of North Carolina. Jurisdictional features with the project footprint are located within the Cape Fear River Basin (Hydrologic Unit [HUC] 03030002) in Alamance County.

Jurisdictional streams that will be impacted by Section A of this project include MoAdams Creek (Latham Lake) (N.C. Division of Water Resources [NCDWR] Classification WS-V, NSW; NCDWR Index No. 16-18-7) and 12 Unnamed Tributaries (UT) of MoAdams Creek (Latham Lake); five UTs of Back Creek (Graham-Mebane Reservoir) (NCDWR Classification WS-II, HQW, NSW, CA; NCDWR Index No. 16-18-[1.5]); and UT of Mill Creek (Forest Lake) (NCDWR Classification WS-II, HQW, NSW; NCDWR Index No. 16-18-3-2-[1]).

Jurisdictional streams that will be potentially impacted by Section B of this project, based on preliminary design, include UT of Mill Creek (Forest Lake) (NCDWR Classifications WS-II, HQW, NSW and WS-II, HQW, NSW, CA; NCDWR Index Nos. 16-18-3-2-[1] and 16-18-3-2-[2]); Mill Creek (NCDWR Classification WS-II, HQW, NSW, CA; NCDWR Index No. 16-18-3-[1.5]) and one UT of Mill Creek; and three additional UTs of Mill Creek (NCDWR Classification WS-II, HQW, NSW; NCDWR Index No. 16-18-3-[0.5]).

There are no designated Outstanding Resource Waters (ORW) or Water Supply I (WS-I) waters within 1.0 mile of the project. Additionally, there are no designated anadromous fish or trout waters within the project footprint. Several features within 1.0 mile of the project are identified as both High Quality Waters (HQW) and Water Supply II (WS-II) waters. These include Back Creek (Graham-Mebane Reservoir), Back Creek (NCDWR Classification WS-II, HQW, NSW; NCDWR Index No. 16-18-[1]), UT of Mill Creek (Forest Lake), Mill Creek, and Lake Michael (NCDWR Classification WS-II, HQW, NSW; NCDWR Index No. 16-18-[1]).

Within 1.0 mile of the construction footprint, Back Creek (Graham-Mebane Reservoir) (Assessment Unit No. 16-18-[1.5]a1) is listed on the 2014 Final 303(d) List of Impaired Waters for North Carolina. This portion of the Back Creek is listed for turbidity.

Jurisdictional Determinations

Wetland delineations for U-3109 followed the field delineation method outlined in the *1987 Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the subsequent *Regional Supplement to the Corps of Engineers Delineation Manual: Eastern Mountains and Piedmont Region* (USACE; Interim Version [2010], Version 2.0 [2012]). The regional supplement was only used for the Jurisdictional Determination (JD) re-verifications (Section A, December 2012; Section B, October 2016). Stream identification and classification followed the Identification Methods for the Origins of

Intermittent and Perennial Streams (North Carolina Division of Water Quality [NCDWQ], Versions 3.0 - 4.1.1).

Jurisdictional features associated with the original project study area (U-3109 in its entirety) and the proposed alternatives within it were verified by USACE Regulatory Specialist John Thomas under a Notification of Jurisdictional Determination (JD), dated July 8, 2003 (Action ID No. 200220667). Revisions/modifications to the JD were also issued by Mr. Thomas on February 16, 2005, June 16, 2005, and July 14, 2005, all under the same Action ID number. Regulatory Specialist Andy Williams (USACE), on January 26, 2010, made additional changes to the project verification, eliminating wetland WL6 and Stream UT18 from the delineation (Action ID No. SAW-2010-00165).

On December 5, 2012 Mr. Williams, along with Amy Euliss from NCDWQ (now NCDWR), performed a site visit to re-verify resources associated with the A Section of the project. Ms. Euliss provided an On-Site Determination for Applicability to the Mitigation Rules (dated May 6, 2013); no written verification was received from USACE.

On October 4, 2016, Mr. David Bailey (USACE) and Mr. Brian Wrenn (NCDWR) performed a site visit to re-verify resources associated with the B Section of the project. Additional information was submitted to Mr. Bailey and Mr. David Wanucha (NCDWR) related to additional features associated with the B Section that were not visited during the October 2016 site visit. Those features were verified without an additional site visit. No written verification has been received from either agency for the B Section at the time of this application submittal.

IMPACTS TO WATERS OF THE U.S.

Summary of Impacts

Surface Water and Wetland Impacts

The projected impacts for the overall project (Sections A and B) within the LEDPA (Alternative 9) are based on final design for Section A and preliminary design for Section B. Stream impacts will be approximately 6,232 linear feet of permanent (6,065 linear feet of permanent fill and 167 linear feet of bank stabilization) and 461 linear feet of temporary impacts. There will be 0.32 acre of open water impacts. Wetland impacts will be approximately 0.89 acre, which consists of 0.78 acre of permanent fill, 0.02 acre of excavation, and 0.09 acre of mechanized clearing. Please see Table 1 for a breakdown of the number of jurisdictional resources impacted by each section. Please also see Tables 2 and 3 for a breakdown of surface water and wetland impacts, by type, in each section. Please see *Jurisdictional Impacts by Section* below for a site-by-site breakdown of impacts for each section of the project.

Section	Design Stage	No. Streams Impacted ¹	No. Wetlands Impacted	No. Ponds Impacted
U-3109A	Final	19	6	3
U-3109B	Preliminary	6	7	0
r	FOTAL	25	13	3

Table 1. Summary of Water Resources Impacted by U-3109

¹ UT14 (now Stream SU in Section A and Stream SA in Section B) is impacted in both sections.

Table 2. Summary of Surface Water Impacts for U-3109

Section	Design Stage	Stream Impact Type	Impact Length (lin. ft.)
		Permanent Fill	4,759
U-3109A	Final	Bank Stabilization	167
		Temporary Fill	461
U 2100D	Dralinsinary	Permanent Fill	1,306
U-3109B	Preliminary	Temporary Fill	0
	TOTA	ΛL^1	6,232 Permanent 461 Temporary

¹ In addition to the impacts listed in the table, 0.32 acre of permanent open water impacts will also occur.

 Table 3. Summary of Wetland Impacts for U-3109

Section	Design Stage	Wetland Impact Type	Acreage (ac.)
		Permanent Fill	0.27
U-3109A	Final	Excavation	0.02
		Mechanized Clearing	0.09
U-3109B	Preliminary	Permanent Fill	0.51
	TO	DTAL	0.89

Utility Impacts

No utility impacts to jurisdictional features will occur in Section A of the project. Impacts associated with utility relocations for Section B will be determined at final design.

Buffer Impacts

U-3109 (Sections A and B) reached Concurrence Points 3 (LEDPA) and 4A (Avoidance and Minimization) on June 19, 2008, which is prior to the effective date of the Jordan

Lake Riparian Buffer Rules, which were initially enacted on August 11, 2009. Therefore, this project is considered exempt from the Jordan Lake Riparian Buffer Rules.

Jurisdictional Impacts by Section

<u>U-3109A</u>

Tables 4 and 5 provide site-by-site impacts to streams and wetlands within Section A of the project. A brief description of each impact site follows the tables. The proposed impacts for this section, which are based on final design, are 4,926 linear feet of permanent stream impacts (4,759 linear feet of permanent fill and 167 linear feet of bank stabilization), 461 linear feet of temporary stream impacts, 0.27 acre of permanent fill in wetlands, 0.02 acre of excavation in wetlands, and 0.09 acre of mechanized clearing in wetlands.

Permanent open water impacts totaling 0.32 acre are also proposed for this Section. A total of 0.10 acre of permanent impacts are proposed at Site 4 to Pond OWA; 0.13 acre of permanent impacts are proposed at Site 12 to jurisdictional Pond OWB; and 0.09 acre of permanent impacts are proposed at Site 13 to jurisdictional pond OWC.

 Table 4. U-3109A Stream Impacts

Permit Site No.	Stream Name	Stream ID (FEIS ID) ¹	Int./Per.	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
1	UT of MoAdams Creek (Latham Lake)	SB (UT2)	Int.	Perm. Fill	235	0	None Required	0
1	UT of MoAdams	SB (UT2)	Per.	Perm. Fill	117	117	2:1	0
	Creek (Latham Lake)			Temp. Fill	16	0		0
2	UT of MoAdams	SC (UT3)	Int.	Perm. Fill	348	348	1:1	0
	Creek (Latham Lake)			Temp. Fill	17	0		0
3	UT of MoAdams	SD (UT1)	Per.	Perm. Fill	320	320	2:1	320
	Creek (Latham Lake)			Temp. Fill	10	0		0
5	UT of MoAdams Creek (Latham Lake)	SF (UT4)	Int.	Temp. Fill	16	0		0
6	UT of MoAdams	SG	Int.	Perm. Fill	257	257	2:1	0
	Creek (Latham Lake)			Temp. Fill	35	0		0
				Perm. Fill	501	501	2:1	501
7	MoAdams Creek (Latham Lake)	MoAdams Creek e) (Latham Lake)	Per.	Bank Stabil.	63	0 ²		63
				Temp. Fill	52	0		0

 Table 4. U-3109A Stream Impacts (Continued)

Permit Site No.	Stream Name	Stream ID (FEIS ID) ¹	Int./Per.	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
7A	UT of MoAdams	SH (UT5)	Int.	Perm. Fill	18	0	None Required	0
	(Latham Lake)			Temp. Fill	20	0		0
8A	UT of MoAdams	SJ (UT6)	Per	Perm. Fill	463	463	2:1	463
	Creek (Latham Lake)			Temp. Fill	19	0		0
8B	UT of MoAdams	SK	Per	Perm. Fill	82	82	2:1	0
0D	Creek (Latham Lake)	SIL		Temp. Fill	21	0		0
10	UT of MoAdams	SM (UT7)	Per	Perm. Fill	396	396	2:1	396
	Creek (Latham Lake)			Temp. Fill	25	0		0
10A	UT of MoAdams Creek (Latham Lake)	SN (UT7A)	Per.	Perm. Fill	74	74	2:1	0
11	UT of MoAdams	SO (UT8)	Per	Perm. Fill	270	270	1:1	270
	Creek (Latham Lake)	50 (018)	rer.	Temp. Fill	25	0		0
12B	UT of Back Creek (Graham-	S1	Per.	Perm. Fill	105	105	2:1	0
	Mebane Reservoir)	~ -		Temp. Fill	7	0		0

 Table 4. U-3109A Stream Impacts (Continued)

Permit Site No.	Stream Name	Stream ID (FEIS ID) ¹	Int./Per.	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
12C	UT of Back Creek (Graham- Mebane Reservoir)	82	Per.	Temp. Fill	13	0		0
13	UT of Back Creek (Graham-	SR (UT10)	Per.	Perm. Fill	183	183	2:1	183
	Mebane Reservoir)			Temp. Fill	21	0		0
14	UT of Back Creek (Graham- Mebane Reservoir)	SS	Per.	Temp. Fill	19	0		0
15	UT of Back Creek (Graham-	ST (UT11)	Per.	Perm. Fill	447	447	2:1	447
	Mebane Reservoir)			Temp. Fill	44	0		0
16	UT of Back Creek (Graham-	SR (UT10)	Per.	Perm. Fill	494	494	2:1	494
	Mebane Reservoir)	5K (0110)	r ci.	Temp. Fill	32	0		0
17	UT of Mill Creek (Forest Lake)	SU (UT14) ³	Per.	Bank Stabil.	35	02		354

 Table 4. U-3109A Stream Impacts (Continued)

Permit Site No.	Stream Name	Stream ID (FEIS ID) ¹	Int./Per.	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
	Madama			Perm. Fill	122	122	2:1	122
18	18 Creek SI (Latham Lake)	SI	Per.	Bank Stabil.	69	02		69
				Temp. Fill	45	0		0
20	UT of MoAdams	SL (UT25)	Per.	Perm. Fill	327	327	2:1	327
	Creek (Latham Lake)	~_ (0)		Temp. Fill	24	0		0
TOTAL TEMPORARY FILL IMPACTS					461	0		0
TOTAL PERMANENT FILL IMPACTS				4,759	4,506		3,523	
,	TOTAL BANK S	STABILIZATIO	N IMPACI	ſS	167	0		167

¹ Stream IDs are from the December 2012 JD re-verification, except for Streams S1 and S2, which were added to the project in 2016 after Concurrence Point 4C. Corresponding Stream IDs that were used in the FEIS are in parentheses, where applicable.

² Per USACE, bank stabilization impacts do not require compensatory mitigation.

³ Stream SU in Section A is also Stream SA in Section B.

⁴ Although this impact does not exceed the 150 linear-foot threshold requiring mitigation, this stream is also impacted in the B Section of the project and the total impact does exceed that threshold. Therefore, NCDWR-required mitigation is being applied to this Site.

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Permit Site No.	Wetland ID (FEIS ID) ¹	Wetland Type ²	Impact Type	Permanent Impacts (ac.) ³	Impacts Requiring USACE mitigation (ac.)
0	WP(WI2)	ЦЕ	Perm. Fill	< 0.01	< 0.01
9	WD(WL2)	ПГ	Mech. Clearing	0.01	0.01
12	WD	HF	Perm. Fill	0.08	0.08
12A	WE	NTFM	Perm. Fill	0.03	0.03

Permit Site No.	Wetland ID (FEIS ID) ¹	Wetland Type ²	Impact Type	Permanent Impacts (ac.) ³	Impacts Requiring USACE mitigation (ac.)
12		ЦЕ	Perm. Fill	0.07	0.07
15	WF (WL4)	ПГ	Mech. Clearing	0.01	0.01
10	$\mathbf{W}\mathbf{A}$ (WI 11)	NTEM	Perm. Fill	0.04	0.04^{4}
19 WA (W	WA (WLII)		Mech. Clearing	0.01	0.01^{4}
			Perm. Fill	0.05	0.05
20	WC (WL13)	NTFM	Excavation	0.02	0.02
			Mech. Clearing	0.06	0.06
	Total Per	manent Fill		0.27	0.27
	Total Excavation				0.02
	Total Mecha	nized Cleari	0.09	0.09	
	TOTAL	IMPACTS		0.38	0.38

Table 5. U-3109A Wetland Impacts (Continued)

¹ Wetland IDs are from the December 2012 JD re-verification. Corresponding Wetland IDs that were used in the FEIS are in parentheses, where applicable.

² HF – Headwater Forest; NTFM – Non-Tidal Freshwater Marsh. All wetlands are Riparian.

³ Rounded totals are sum of actual impacts.

⁴ Wetland WA has a 1:1 mitigation ratio. All other wetlands have a 2:1 mitigation ratio.

<u>Permit Site 1</u>: The installation of a 48-inch reinforced concrete pipe (RCP) under the Lline will result in 235 linear feet of permanent impacts to the intermittent portion of Stream SB. It will also result in the permanent impact of 117 linear feet and the temporary impact of 16 linear feet to the perennial portion of Stream SB.

<u>*Permit Site 2*</u>: The installation of a 54-inch RCP under the L-line and associated stormwater management tie-ins will result in the permanent impact of 348 linear feet and temporary impact of 17 linear feet to Stream SC.

<u>*Permit Site 3*</u>: The installation of a 66-inch RCP under a new portion of Y-line connecting to Third Street and associated stormwater management tie-ins will result in 320 linear feet of permanent impact and 10 linear feet of temporary impact to Stream SD.

<u>*Permit Site 4*</u>: The placement of rock fill associated with the L-line will result in 0.10 acre of permanent open water impacts to Pond OWA.

<u>*Permit Site 5*</u>: The installation of three 30-inch RCPs under the L-line, connecting Pond OWA and Stream SF, will result in 16 linear feet of temporary impacts to Stream SF.

<u>*Permit Site 6*</u>: The installation of a 54-inch RCP under the L-line and associated stormwater management tie-ins will result in 257 linear feet of permanent impact and 35 linear feet of temporary impact to Stream SG.

<u>*Permit Site 7*</u>: The installation of a triple-barrel (3 at 11-foot by 9-foot) Reinforced Concrete Box Culvert (RCBC) under the L-line and corresponding channel change east of the L-line will result in 501 linear feet of permanent impact, 63 linear feet of bank stabilization impact, and 52 linear feet of temporary impact to MoAdams Creek (Latham Lake).

<u>Permit Site 7A</u>: A channel realignment is required to tie existing Stream SH to the proposed channel change alignment of MoAdams Creek at Permit Site 7. This will result in 18 linear feet of permanent impact and 20 linear feet of temporary impact to Stream SH.

<u>*Permit Site 8A*</u>: The installation of a 48-inch RCP under the L-line and an associated stormwater management tie-in will result in 463 linear feet of permanent impact and 19 linear feet of temporary impact to Stream SJ.

<u>Permit Site 8B</u>: The pipe installation described at Permit Site 8A will also result in 82 linear feet of permanent impact and 21 linear feet of temporary impact to Stream SK.

<u>*Permit Site 9*</u>: The placement of roadway fill associated with the L-line will result in <0.01 acre of permanent fill and 0.01 acre of mechanized clearing impacts to Wetland WB.

<u>*Permit Site 10*</u>: The installation of a 72-inch RCP under the L-line and associated stormwater management tie-ins will result in 396 linear feet of permanent impact and 25 linear feet of temporary impact to Stream SM.

<u>Permit Site 10A</u>: The placement of roadway fill, plus the actions described at Permit Site 10, will result in 74 linear feet or permanent impact to Stream SN. This is a total take of the stream.

<u>*Permit Site 11*</u>: The installation of a 48-inch RCP under the L-line and an associated stormwater management tie-in will result in 270 linear feet of permanent impact and 25 linear feet of temporary impact to Stream SO.

<u>*Permit Site 12*</u>: Due to the placement of roadway fill associated with the L-line, a total of 0.08 acre of permanent fill will occur in Wetland WD. This is a total take. Additionally, jurisdictional Pond OWB will be breached and drained, resulting in 0.13 acre of permanent open water impacts. This is also a total take.

<u>*Permit Site 12A*</u>: Due to the location of the L-line, a total of 0.03 acre of permanent fill will occur in Wetland WE. This is a total take.

<u>*Permit Site 12B*</u>: The creation of a tail ditch in a portion of Stream S1 will result in 105 linear feet of permanent impact and 7 linear feet of temporary impact to the stream. This ditch will be placed directly downstream of drained Pond OWB.

<u>*Permit Site 12C*</u>: A total of 13 linear feet of temporary impact will occur to Stream S2 due to the tail ditch work along Stream S1 associated with Permit Site 12B.

<u>Permit Site 13</u>: The installation of a 66-inch RCP under the L-line, plus a Hazardous Spill Basin (HSB) tie-in east of the roadway, will result in 183 linear feet of permanent impact and 21 linear feet of temporary impact to Stream SR. Due to the placement of roadway fill and rock fill along the L-line, 0.07 acre of permanent fill and 0.01 acre of mechanized clearing will occur in Wetland WF and 0.09 acre of permanent open water impacts will occur to Pond OWC.

<u>*Permit Site 14*</u>: The placement of a 36-inch RCP under a new Y-line section connecting to US 70, just upstream of Stream SS, will result in 19 linear feet of temporary impact to the feature.

<u>Permit Site 15</u>: The installation of a single-barrel (1 at 10-foot by 7-foot) RCBC under the L-line will result in 447 linear feet of permanent impact and 44 linear feet of temporary impact to Stream ST.

<u>Permit Site 16</u>: The installation of a 42-inch RCP under the same Y-line extension that is impacted by Permit Site 14, plus a HSB tie-in west of the roadway, will result in 494 linear feet of permanent impact and 32 linear feet of temporary impact to Stream SR.

<u>*Permit Site 17*</u>: The installation of bank stabilization along Stream SU, as part of the stormwater management design, will result in 35 linear feet of bank stabilization impacts.

<u>*Permit Site 18*</u>: The installation of a double-barrel (2 at 10-foot by 8-foot) RCBC under the realignment/extension of Corrigidor Road will result in 122 linear feet of permanent impact, 69 linear feet of bank stabilization impacts, and 45 linear feet of temporary impact to Stream SI.

<u>*Permit Site 19*</u>: Due to the placement of roadway fill along the realignment/extension of Corrigidor Road, a total of 0.04 acre of permanent fill and 0.01 acre of mechanized clearing will occur in Wetland WA. This is the only wetland that requires a 1:1 mitigation ratio (the rest will require a 2:1 ratio).

<u>Permit Site 20</u>: The placement of a 60-inch RCP under the intersection of the Corrigidor Road realignment/extension and Roosevelt Street tie-in will result in 327 linear feet of permanent impact and 24 linear feet of temporary impact to Stream SL. Additionally, roadway fill and the RCP installation will result in 0.05 acre of permanent impact due to fill, 0.02 acre of permanent impact due to excavation, and 0.06 acre of mechanized clearing in Wetland WC.

<u>U-3109B</u>

Tables 6 and 7 provide site-by-site impacts to streams and wetlands within Section B of the project. These impacts are based on preliminary design; stream and wetland impacts were calculated based on slope stakes plus 25-foot estimates. Hydraulic design has not yet occurred on this Section; therefore, site-specific impact descriptions are not possible at this time. The proposed impacts for this section are 1,306 linear feet of permanent stream impacts and 0.51 acre of permanent wetland fill impacts.

Permit Site No.	Stream Name	Stream ID (FEIS ID) ¹	Int./Per.	Impact Type ²	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio ³	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
1	UT of Mill Creek (Forest Lake)	SA (UT14) ⁴	Per.	Perm. Fill	280	280	2:1	280
2	Mill Creek	Mill Creek	Per.	N/A	0 ⁵	0		0
3	UT of Mill Creek	SB (UT16)	Int.	Perm. Fill	400	400	2:1	0
4	UT of Mill Creek	SC (UT17)	Int.	Perm. Fill	146	146	2:1	0
10	UT of Mill Creek	SI (UT 29 – lower portion only)	Int.	Perm Fill	299	299	2:1	0
11	UT of Mill Creek	SJ (UT28)	Int.	Perm. Fill	181	181	2:1	0
TOTAL PERMANENT FILL IMPACTS					1,306	1,306		280

Table 6. U-3109B Preliminary Stream Impacts

¹ Stream IDs are from the October 2016 JD re-verification. Corresponding Stream IDs that were used in the FEIS are in parentheses, where applicable.

² Impacts are based on preliminary design. Stream impacts were calculated based on slope stakes plus 25 feet. All impacts were assumed to be permanent fill at this stage in design. These designations may change once design is more refined.

³ All impacts were assumed to have a 2:1 mitigation ratio at this stage in design.

⁴ Stream SA is also Stream SU in Section A.

⁵ It is assumed at this point in design that the bridge across Mill Creek will span the creek and no impacts will occur. However, this feature has been assigned a site number in case that changes in final design.

Permit Site No.	Wetland ID ¹	Wetland Type ²	Impact Type	Permanent Impacts (ac.) ³	Impacts Requiring USACE mitigation (ac.) ⁴
4	WA	FP	Perm. Fill	0.01	0.01
5	WB	NTFM	Perm. Fill	0.12	0.12
6	WC	NTFM	Perm. Fill	0.11	0.11
7	WD-1	NTFM	Perm. Fill	0.18	0.18
8	WE-1	HF	Perm. Fill	0.06	0.06
9	WE-2	HF	Perm. Fill	0.01	0.01
10	WG	HF	Perm. Fill	< 0.01	< 0.01
	TOTAL	IMPACTS	0.51	0.51	

 Table 7. U-3109B Preliminary Wetland Impacts

¹ Wetland IDs are from the October 2016 JD re-verification. No wetlands were identified in the FEIS in the B Section of the project.

² FP – Floodplain Pool; HF – Headwater Forest; NTFM – Non-Tidal Freshwater Marsh. All wetlands are Riparian.

³ Rounded totals are sum of actual impacts. Wetland impacts in the B Section of the project are based on preliminary design. Impacts were calculated using slopes stakes plus 25 feet. All impacts were assumed to be permanent fill at this stage in design. These designations may change once design is more refined.

⁴ All impacts were assumed to have a 2:1 mitigation ratio at this stage in design.

MITIGATION OPTIONS

The USACE has adopted, through the Council on Environmental Quality (CEQ), a wetland mitigation policy that embraces the concept of "no net loss of wetlands" and sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of the waters of the United States. CEQ has defined mitigation of wetland and surface water impacts to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts (40 CFR 1508.20).

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts, and to provide full compensatory mitigation of all remaining, unavoidable jurisdictional impacts. Avoidance measures were taken during the planning phase and minimization measures were incorporated as part of the project design. Minimization includes the examination of appropriate and practicable steps to reduce the adverse impacts.

Avoidance and Minimization

Avoidance and minimization has been employed in the project area to the maximum extent practicable. Listed below are some of the measures implemented on the project as a whole (both Sections A and B):

- NCDOT's Best Management Practices (BMPs) for the Protection of Surface Waters will be enforced.
- NCDOT's Best Management Practices for Construction and Maintenance Activities will also be employed.
- Due to a portion of the project being within the Graham-Mebane Reservoir watershed crticial area, Design Standards in Sensitive Watersheds will be employed.

Avoidance and Minimization included in FEIS/CP 4A (both Sections A and B)

Below is an overview of the avoidance and minimization that NCDOT has agreed to for this project, listed based on the document or meeting that it is attributed to. Any additional information for an item is listed below the item in italics.

FEIS

- During the development of the preliminary engineering designs for each Detailed Study Alternative, including the Preferred Alternative (Alternative 9), efforts were made to avoid and minimize impacts to wetlands and streams wherever practicable. Where stream crossings were unavoidable, they were located, within design constraints, as perpendicular as practicable, in order to minimize the length of stream impacted.
- The alignment for all three Detailed Study Alternatives, including the Preferred Alternative (Alternative 9), proposed under the preliminary engineering designs crosses Wetland 1 (WL1) where the direct impacts would be the least; staying as much on the eastern edge of the wetland as possible while not encroaching upon a parallel section of MoAdams Creek to the west.
 - Wetland WL1 is not impacted by the project and appears to have been eliminated in the 2012 re-delineation.
- The alignment skirts between Wetland 3 (WL3), which is near the eastern boundary of the alignment, and Wetland 4 (WL4), which is on the western boundary of the alignment, while avoiding impacts to Craftique Furniture Company.
 - Wetland WL3 is not impacted by the project, but Wetland WL4 (now WF) is impacted at Permit Site 13.
- Wetlands 11 (WL11) and 13 (WL13) are associated with the extension of Corrigidor Road. The alignment impacts the western edge of WL11 and WL13 to avoid impacting the City of Mebane WWTP operations.

- Wetland WL11 (now WA) is impacted at Permit Site 19 and Wetland WL13 (now WC) is impacted at Permit Site 20.
- Jurisdictional impacts would be further minimized by a reduction in side slopes to 2:1 in the areas of wetland impacts. Sensitive placement of drainage structures, during final design of Preferred Alternative 9, would minimize degradation of water quality and reduce adverse impacts on aquatic habitat viability in streams and tributaries. Based on preliminary designs, there are no substantial fill slopes associated with this project. A determination would be made during final design if retaining walls should be included in the design. Once surveys of the project area are available, the preliminary design can be revised to further minimize impacts to the human and natural environments.
- The Mebane Rogers Road tie-in near proposed NC 119 was designed to end before the creek crossing (Site 5; Figure S.4 of the FEIS) for Alternative 8 and Preferred Alternative 9.
 - This feature, Stream UT14 (renamed SU in Section A and SA in Section B), was going to be impacted at this location in the Alternative 9 A Section final design due to the installation of a single-barrel box culvert. However, a design revision was made and the culvert will no longer be installed. However, the stream will still incur minor bank stabilization impacts (35 linear feet) at this location due to the stormwater management design, which was not considered in the FEIS impacts.
- The tie-in from proposed NC 119 to existing NC 119 south of the Mill Creek community was designed to end before the Mill Creek crossing for the Detailed Study Alternatives, including Preferred Alternative 9, in this area.
- In the vicinity of the Fieldstone community, the mainline alignment was shifted slightly outside the corridor limits to reduce impacts to MoAdams Creek, necessitating a slight expansion of the corridor limits in this area.
- A bridge over Mill Creek is an additional minimization component. Bridging floodplain wetlands along the larger stream systems, such as Mill Creek, would decrease the degree of potential habitat fragmentation and reduce potential wildlife mortality due to traffic operations by providing riparian corridors for wildlife use.
 - Preliminary design for the B Section shows that bridges will be employed over Mill Creek.

CP 4A (items that were not listed in the FEIS)

- The realignment of Third Street in the vicinity of the U.S. Post Office was designed to reduce impacts to the Fieldstone apartments, as well as other residences in that area.
- An access road was incorporated into the design near the beginning of the project to reduce impacts to the Fox Run apartments.
- The Cates Farm on-site stream restoration project will be discussed and evaluated at CP 4B.

• Cates Farm is associated with the B Section of the project; a more detailed restoration discussion will occur when Section B is at or near CP 4B.

Avoidance and Minimization, Section A Stormwater Management Plan

After CP 4A, the project was split into its 2 Sections. The information that follows in this section is for the A Section of the project only. Detailed information regarding the post-4A avoidance and minimization for Section A will be provided at a later date.

- A combination of grassed swales, roadway ditches, and structural BMPs were employed to minimize water quality impacts. In most locations, the outlets for the storm drainage systems were placed at least 50 feet from the Jurisdictional Stream. However, due to topography, none of the lateral grass swales located along the embankment fill slope met the recommended minimum length of swale.
- Class B rip rap aprons/pads will be installed at pipe outlets at Stations 80+50 -L-LT and 97+98 -L- LT.
- A Class I rip rap energy dissipator basin will be installed at a pipe outlet at Station 100+70 -L- LT.
- Pre-formed Scour Holes (PSH) comprised of Class B rip rap will be installed at Stations 130+50 -L- LT and 140+50 -L- LT.
- Hazardous Spill Basins will be installed at the following locations:
 - o 161+92 -L- RT
 - o 179+68 -L- RT
 - 20+90 -Y16RPA- LT
 - o 32+55 -Y20- LT

Compensatory Mitigation

<u>U-3109A</u>

Compensatory mitigation requirements for permanent stream and wetland impacts associated with U-3109A are summarized below in Table 12. These impacts are based on final design and occur in HUC 03030002.

A total of 4,926 linear feet of permanent warm water stream impacts will occur in the A Section. Of that total, 167 linear feet are bank stabilization impacts, which do not require mitigation per USACE. Of the remaining 4,759 linear feet of permanent stream impacts, 3,888 linear feet will require compensatory mitigation at a 2:1 ratio per USACE, 618 linear feet will require mitigation at a 1:1 ratio, and 253 linear feet will not require any mitigation (Sites 1 and 7A). These mitigation decisions were made at the December 5, 2012 site visit with USACE and NCDWR.

NCDWR-mandated compensatory mitigation is not required for any permanent impacts along intermittent streams (including bank stabilization). However, NCDWR does require

mitigation along perennial streams if the total permanent impacts along a given stream, including bank stabilization, exceed 150 linear feet. Therefore, NCDWR will require compensatory mitigation for 3,690 linear feet of permanent warm water stream impacts (167 linear feet of which is bank stabilization) at a 1:1 ratio.

The total USACE stream mitigation requirement exceeds the NCDWR stream mitigation requirement; therefore NCDOT will request that DMS provide compensatory mitigation for 3,888 linear feet of permanent stream impacts at a 2:1 ratio and 618 linear feet of permanent stream impacts at a 1:1 ratio.

Compensatory mitigation at a 2:1 ratio for 0.33 acre of permanent riparian wetland impacts resulting from roadway fill (0.23 acre), mechanized clearing (0.08 acre), and excavation (0.02 acre); and 0.05 acre at a 1:1 ratio resulting from roadway fill (0.04 acre) and mechanized clearing (0.01 acre) will be offset by NCDOT by debiting the South Buffalo Creek Mitigation Site. Please see the attached insert regarding the debit ledger transaction.

	Stream Impacts (lin. ft.)	Riparian Wetland Impacts (ac.)	
Impacts Requiring Mitigation	4,506	0.38	
Mitigation Datio	3,888 at 2:1	0.33 at 2:1	
Mugation Katio	618 at 1:1	0.05 at 1:1	
Total DMS Mitigation	8,394		
Total Debit Ledger Mitigation		0.71	

 Table 12. U-3109A Compensatory Mitigation Summary

<u>U-3109B</u>

Compensatory mitigation requirements for permanent stream and wetland impacts associated with U-3109B are summarized below in Table 13. These impacts are based on preliminary design and occur in HUC 03030002. The current proposed Let Date for U-3109B is October 19, 2021. Since this is less than five years from the proposed Let Date of the A Section (May 16, 2017), NCDOT will acquire mitigation now to offset proposed impacts on the B Section. These impacts and mitigation requirements are subject to change once final design is available.

A total of 1,306 linear feet of stream impacts are proposed in the B Section. Since these impacts are based on preliminary design, all impacts are currently considered permanent

stream impact. It is also assumed that all impacts will require mitigation at a 2:1 ratio per USACE. Of the 1,306 linear feet of proposed permanent stream impacts, 280 linear feet are proposed on perennial streams. Since NCDWR-mandated compensatory mitigation is not required for any permanent impacts along intermittent streams, mitigation for NCDWR is only required for this 280 linear feet. This mitigation will be required at a 1:1 ratio.

The total USACE stream mitigation requirement exceeds the NCDWR stream mitigation requirement; therefore NCDOT will request compensatory mitigation for 1,306 linear feet of permanent stream impacts at a 2:1 ratio. NCDOT will also request mitigation to offset 0.51 acre (2:1 ratio) of permanent riparian wetland impacts currently proposed in the preliminary design.

NCDOT will request that DMS provide compensatory mitigation for impacts associated with the B Section at this time. However, other mitigation options such as debit ledger and/or on-site mitigation may be pursued once final design is available. The Cates Farm property is currently being reviewed as a potential on-site mitigation site that could offset impacts in this section. If either/both of these options are pursued in the future, they will replace all/ a portion of the mitigation that is currently being provided by DMS.

	Stream Impacts (lin. ft.)	Riparian Wetland Impacts (ac.)
Impacts Requiring Mitigation	1,306	0.51
Mitigation Ratio	2:1	2:1
Total DMS Mitigation	2,612	1.02

 Table 13. U-3109B Compensatory Mitigation Summary

MORATORIUM

No moratoria are proposed for section of this project.

FEDERALLY PROTECTED SPECIES

Plants and animals with Federal classification of Endangered (E) or Threatened (T) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of September 22, 2010, the U.S. Fish and Wildlife Service (USFWS) lists zero federally protected species for Alamance County.

Northern long-eared bat

The USFWS has developed a programmatic biological opinion (PBO) in conjunction with FHWA, 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. The programmatic determination for NLEB for the NCDOT program is **May Affect, Likely to Adversely Affect**. The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Alamance County, where U-3109 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

Bald eagle

Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water.

A desktop-GIS assessment of the entire project (Sections A and B), as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, was performed on January 3, 2017 using the newest-available color aerials of the review area. Water bodies large enough and/or sufficiently open to be considered potential feeding sources were identified, including the Graham-Mebane Reservoir and Forest Lake. Since there was foraging habitat within the review area, a survey of the project study area and the area within 660 feet of the project limits was conducted on January 24, 2017. No individuals or nests were identified within the nesting survey area. Additionally, a review of the NCNHP database on January 4, 2017 revealed no known occurrences of this species within 1.0 mile of the project study area. Due to the lack of habitat, known occurrences, and minimal impact anticipated for this project, it has been determined that this project will not affect this species.

CULTURAL RESOURCES

Section 4(f) Resources

There is one resource within the boundaries of the preferred alternative (Alternative 9), the Cates Farm, which is protected under Section 4(f) of the Department of Transportation Act. This property is located in the B Section of the project. The Cates Farm is a historic property listed on the NRHP under Criterion A (Agriculture) for the importance of its dairy operation within the agricultural context of Alamance County, as developed for the property's period of significance (1905-1947), and under Criterion B for its association with Charles F. Cates, founder of the Cates Pickle Manufacturing Company and a leader in business, civic, and agricultural affairs.

For Alternative 9, the proposed roadway is anticipated to be visible and audible from the farmhouse. However, it will not require the removal of any structures associated with the Cates Farm. The Historic Preservation Office (HPO) initially determined that Alternative 9 will have an "adverse effect" on the property in their concurrence form dated June 6, 2002, which is included in the FEIS. A subsequent concurrence form, dated August 21, 2007, confirms the HPO's previous finding and is also included in the FEIS.

Several alignments that avoid the Cates Farm were studied during the project planning process. These alternatives required the acquisition of right-of-way from one or more historic properties in the area, had significant relocations of residences or businesses, impacted the West End community, or had additional impacts to the water supply watershed critical area of the Graham-Mebane Reservoir. For these reasons, earlier alignments were eliminated from further study.

In accordance with 23 CFR 771.135(i), the FHWA provided the FEIS and Section 4(f) Evaluation to the Department of the Interior, Office of Environmental Project Review, for coordination and comment on July 9, 2009. A copy of this letter is included in the FEIS. A minimum of 45 days was established by the Administration for receipt of comments. No comments were received from the Department of Interior within the comment period.

A Memorandum of Agreement (MOA) for mitigative measures concerning impacts to the Cates Farm was signed in October 2009 and is included with this permit application. The MOA stipulates that the NCDOT will complete a photo-documentation record of the Cates Farm and its surroundings and prepare a landscape plan that incorporates native plants along the top of the roadway slope in a natural appearance and composition to help to screen the farm from the roadway. The photo-documentation of the Cates Farm will be completed prior to construction. The landscape plan will be prepared in coordination with the property owners when the Section B final design is prepared.

Since the FEIS was approved, the farm owners, along with the City of Mebane, have worked to preserve the farm as an active farming operation, using a conservation easement mechanism. The NCDOT acquired the necessary right-of-way from the farm through the protective purchase process prior to establishment of the conservation easements.

Section 6(f) Resources

The project will not impact any 6(f) resources.

Historical Architecture Resources

As stated above, the Cates Farm is located within the B Section of the project. No historical architecture is located in the A Section of the project.

Archaeological Resources

The common corridor of the Preferred Alternative and Alternatives 8 and 10 crosses archaeological Site 31AM392, located on an upland flat on the Davis property, which is north of and adjacent to the Craftique Furniture Company property on the east side of SR 1949 (Edgewood Church Road). This is located in the A Section of the project. Preliminary archaeological test excavations of this site revealed the eroded nature of the ridge toe. The site has little potential to yield any information important to history or prehistory and does not meet the criterion for listing on the NRHP. Therefore, no additional archaeological work is recommended at this site (see the attached letter from HPO dated January 4, 2005).

The common corridor of the Preferred Alternative and Alternatives 8 and 10 also crosses archaeological Site 31AM395, located on a ridgetop just west of SR 1951 (Woodlawn Road; also in Section A). Due to the heavily deflated nature of the site, it is recommended as being not eligible for the NRHP (Legacy Research Associates, 2009). Therefore, no additional archaeological work is recommended at this site.

The Office of State Archaeology (OSA) commented that Cook's Mill (31AM369**), deemed eligible for listing on the NRHP under Criterion B, C, and D, should be avoided (see attached memo from HPO dated January 27, 2003). The Preferred Alternative (and Alternatives 8 and 10 from the FEIS) avoid this property. The Preferred Alternative (and Alternatives 8 and 10) also avoid Site 31AM394 near Woodlawn Road, which is recommended as being eligible for the NRHP (also in the A Section). Therefore, no further archaeological work is expected for this project.

INDIRECT CUMULATIVE IMPACT ANALYSIS

The following information is taken from the "Indirect and Cumulative Effects Screening and Land Use Scenario Assessment Report" for U-3109, dated February 2015. Copies of this document are available upon request.

Scenario Assessment Conclusions

The proposed relocation of the NC 119 alignment would likely encourage more development along the new alignment. Residential development would likely occur in all four probable development areas (PDA) due to new access, although zoning regulations would limit the density of new residential development. Similarly, industrial and commercial development would likely occur in three of the PDAs – I-40/I-85 to MoAdams Creek; MoAdams Creek to US 70; and US 70 to Mebane Rogers Road. However, development in the US 70 to Mebane Rogers Road PDA may be limited due to zoning restrictions and would not likely be more than that of the "No Build" scenario.

The new alignment would have a slight influence on regional population growth, albeit limited. The proposed alignment would create greater access to an area with limited roads and development. However, as previously stated, zoning regulations would limit the size and amount of residential development, therefore minimizing the growth.

All four PDAs fall within areas strictly regulated by water quality and zoning policies. It is unlikely that either the "Build" or "No Build" scenarios would have a notable impact on water quality. Furthermore, all probable development areas occur within planned areas; therefore minimal water quality impacts are anticipated.

The proposed realignment of NC 119 would slightly influence the development patterns of the area, as the new location would create additional access points. Additionally, the rural nature of the probable development areas would likely allow for sprawling development. However, the impact from the "Build" scenario is just slightly more likely as compared to the "No Build", due to current development patterns and zoning restrictions.

All four PDAs fall within areas where land development is strictly regulated and would comply with storm water management goals. Riparian buffers associated with the watershed and streams will limit the potential impact of the project.

Water Quality

Analysis of the probable development areas suggests that this project will have little or no impact on future water run-off or water quality in the watershed. The relocation of NC 119 would increase access to minimally-developed land. However, the majority of the land available is zoned for low-density development. Additionally, new developments would have minimal impacts on water quality as a result of riparian buffers established to protect and maintain the streams and reservoir present within the study area.

For these reasons, indirect and cumulative effects on the existing resources, including downstream water quality, should be minimal. No additional ICI study is recommended.

FEMA COMPLIANCE

There are streams within the project limits that are within Federal Emergency Management Agency (FEMA)-designated flood zones. Coordination between the NCDOT Hydraulics Unit and FEMA will occur prior to Let to ensure that NCDOT is in full compliance with applicable floodplain/floodway ordinances.

WILD AND SCENIC RIVER SYSTEM

The project will not impact any designated Wild and Scenic Rivers or any rivers included in the list of study rivers (Public Law 90-542, as amended).

ESSENTIAL FISH HABITAT

The project will not impact any essential fish habitat afforded protection under the Magnuson – Stevens Act of 1996 (16 U.S.C 1801 et seq.).

REGULATORY APPROVALS

Application is hereby made for a Department of the Army Section 404 Individual Permit as required for the above-described activities for the proposed T.I.P. Project No. U-3109.

We are also hereby requesting a Section 401 Water Quality Certification. In compliance with Section 143-215.3D(e) of the North Carolina Administrative Code (NCAC), we will provide \$570.00 to act as payment for processing the Section 401 permit. We are providing two copies of this application to the North Carolina Department of Environmental Quality (NCDEQ), NCDWR, for their review and approval.

A copy of this permit application and its distribution list will be posted on the NCDOT website at <u>https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx</u>, under *Quick Links > Permit Applications*. Copies of the NEPA documents are also available at the above website address under *Quick Links > Environmental Documents*. Thank you for your time and assistance with this project. Please contact James Mason at either jsmason@ncdot.gov or (919) 707-6136 if you have any questions or need additional information.

Sincerely,

Philip S. Harris III, P.E., C.P.M.
 Natural Environment Section Head

Cc: NCDOT Permit Application Standard Distribution List

U-3109 Phased Individual Permit Application Page 26 of 26

U.S. ARMY CORPS OF ENGINEERS APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT 33 CFR 325. The proponent agency is CECW-CO-R.

OMB APPROVAL NO. 0710-0003 EXPIRES: 28 FEBRUARY 2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

	(ITEMS 1 THRU 4 TO BE	FILLED BY THE CORPS)		
1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE	E APPLICATION COMPLETE
	(ITEMS BELOW TO BE	FILLED BY APPLICANT)		
5. APPLICANT'S NAME		8. AUTHORIZED AGENT'S	NAME AND TITLE	E (agent is not required)
First - Philip Middle - S.	Last - Harris III	First - M	iddle -	Last -
Company - NCDOT Natural Envi	ronmont Section	Company		
Company - NCDOT-Ivatural Envi	Tonment Section	Company -		
E-mail Address - jsmason@ncdot.g	ov	E-mail Address -		
6. APPLICANT'S ADDRESS:		9. AGENT'S ADDRESS:		
Address- 1598 Mail Service Cent	er	Address-		
City - Raleigh State - M	VC Zip - 27699 Country - 1598	City -	State -	Zip - Country -
7. APPLICANT'S PHONE NOs. w/AF	REA CODE	10. AGENTS PHONE NOs.	w/AREA CODE	
a. Residence b. Busines	s c. Fax	a. Residence b.	Business	c. Fax
919-707-6	5136 919-212-5785			
	STATEMENT OF	AUTHORIZATION		
11. I hereby authorize, supplemental information in support of	to act in my behalf as this permit application.	my agent in the processing o	f this application a	nd to furnish, upon request,
	SIGNATURE OF APPLIC	CANT DATE	_	
	NAME, LOCATION, AND DESCRI	PTION OF PROJECT OR AC	ΤΙVITY	
12. PROJECT NAME OR TITLE (see	instructions)			
U-3109 (Mebane Bypass)				
13. NAME OF WATERBODY, IF KNO	WWN (if applicable)	14. PROJECT STREET AD	DRESS (if applicat	ble)
MoAdams Creek, Back Creek, M	Address		· · · · · · · · · · · · · · · · · · ·	
15. LOCATION OF PROJECT		City	State	Zin
Latitude: •N 36.108733	Longitude: •W -79.286213	City -	State-	Zip-
16. OTHER LOCATION DESCRIPTIC	DNS, IF KNOWN (see instructions)			
State Tax Parcel ID	Municipality Me	bane		
Section - Alamance County To	wnship -	Range -		

17.	DIREC	TIONS TO	THE SIT	Έ			
Ple	ase see	attached	vicinity	map	and	cover	letter

18. Nature of Activity (Description of project, include all features)

NCDOT proposes to improve NC 119 from near the Interstate 40/85 (I-40/I-85) interchange southwest of downtown Mebane to the existing SR 1962 (3rd Street) Extension. The project then proceeds onto new location, relocating NC 119 to the west and north of downtown Mebane before tying into existing NC 119 just south of SR 1918 (Mrs. White Lane). The project terminates just north of Mrs. White Lane. The new location portion of NC 119 will be constructed as a four-lane, median-divided facility. Existing NC 119 in the vicinity of I-40/I-85 is proposed to be widened to six-lanes. Y-line improvements are also proposed. The project, also known as the Mebane Bypass, is comprised of two sections. Section A, which is approximately 3.3 miles in length, will begin near the I-85/I-40 interchange and end north of SR 1921/SR 1996 (Mebane Rogers Road/East Stagecoach Road). Section B, which is approximately 1.5 miles in length, will begin north of Mebane Rogers Road/ East Stagecoach Road and end north of Mrs. White Lane.

19. Project Purpose (Describe the reason or purpose of the project, see instructions) Please see attached cover letter

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Impacts will result from improving the existing roadway and shoulders, construction of new roadway on new location, and work associated with secondary roads along the project.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards: Type Type Amount in Cubic Yards Amount in Cubic Yards

Type Amount in Cubic Yards

See attached cover letter & permit drawings

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres See attached cover letter & permit drawings.

or

Linear Feet See attached cover letter & permit drawings.

23. Description of Avoidance, Minimization, and Compensation (see instructions) See attached cover letter.

25. Addresses of Adjoin	ning Property Owners, Lesse	es, Etc., Whose Property A	djoins the Waterbody (ifm	ore than can be entered here, please	attach a supplemental list).
a. Address- See perm	it drawing packet.			5	
City -		State -	Zip -		
h Address					
7. Address-					
City -		State -	Zip -		
c. Address-					
City -		State -	Zip -		
d. Address-					
City -		State -	Zip -		
Address					
. Address-					
City -		State -	Zip -		
 List of Other Certification AGENCY 	ates or Approvals/Denials rea	ceived from other Federal, IDENTIFICATION	State, or Local Agencies f	for Work Described in This A	DATE DENIED
		NUMBER			
				()	
Would include but is no	t restricted to zoning, buildin	g, and flood plain permits			
7. Application is hereby omplete and accurate.	r made for permit or permits I further certify that I possess	to authorize the work descr s the authority to undertake	ibed in this application. I the work described herei	certify that this information in in or am acting as the duly at	n this application is athorized agent of the
AAT	6	12-27-2017			
SIGNATURE	OF APPLICANT	DATE	SIGNAT	TURE OF AGENT	DATE
ne Application must buthorized agent if the	e signed by the person we statement in block 11 ha	vho desires to undertake s been filled out and sig	e the proposed activity ned.	(applicant) or it may be si	gned by a duly
and the set of the set of the					

ENG FORM 4345, OCT 2012



February 16, 2017

Mr. Philip S. Harris, III, P.E., CPM Project Development and Environmental Analysis Unit North Carolina Department of Transportation 1598 Mail Service Center Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

U-3109A, Mebane Bypass – NC 119 Relocation from I-85 / I-50 Interchange to North of SR 1921 / SR 1996 (Mebane Rogers Road / East Stagecoach Road), Alamance County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on February 13, 2017, the impacts are located in CU 03030002 of the Cape Fear River basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Cape Fear	Stream			Wetlands			Buffer (Sq. Ft.)	
03030002 CP	Cold	Cool	Warm	Riparian	Non- Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	4,506.0	0	0	0	0	0

*Some of the stream and/or wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

The impacts and associated mitigation needs were under projected by the NCDOT in the 2017 impact data. DMS will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

If you have any questions or need additional information, please contact Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill Credit Management Supervisor

cc: Mr. David Bailey, USACE – Raleigh Regulatory Field Office Ms. Amy Chapman, NCDWR File: U-3109A





State of North Carolina | Environmental Quality 217 West Jones Street | 1601 Mail Service Center | Raleigh, North Carolina 27699-1601 919 707 8600



February 16, 2017

Mr. Philip S. Harris, III, P.E., CPM Project Development and Environmental Analysis Unit North Carolina Department of Transportation 1598 Mail Service Center Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

U-3109B, Mebane Bypass – NC 119 Relocation from North of SR 1921 / SR 1996 (Mebane Rogers Road / East Stagecoach Road) to North of SR 1918 (Mrs. White Lane), Alamance County

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the compensatory stream and wetland mitigation for the subject project. Based on the information supplied by you on February 13, 2017, the impacts are located in CU 03030002 of the Cape Fear River basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Cape Fear	Stream			Wetlands			Buffer (Sq. Ft.)	
CP	Cold	Cool	Warm	Riparian	Non- Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	1,306.0	0.51	0	0	0	0

*Some of the stream and/or wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

The impacts and associated mitigation needs were under projected by the NCDOT in the 2017 impact data. DMS will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

If you have any questions or need additional information, please contact Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill Credit Management Supervisor

cc: Mr. David Bailey, USACE – Raleigh Regulatory Field Office Ms. Amy Chapman, NCDWR File: U-3109B



State of North Carolina | Environmental Quality 217 West Jones Street | 1601 Mail Service Center | Raleigh, North Carolina 27699-1601 919 707 8600 South Buffalo Creek Mitigation Site ONEID 041-009

The South Buffalo Creek mitigation site is located in Guilford County within the USGS hydrologic unit 03030002 of the Cape Fear River. NCDOT acquired a 31.73 acres parcel to mitigate for unavoidable, jurisdictional impacts associated with TIP I-2402, U-2525 and I-2201F/E. This parcel produced 16.2 acres of Riparian Wetland Preservation and 15.53 acres of Riparian Wetland Restoration. Monitoring requirements were performed from 1999 to 2003 and the site was closed out in 2004. Table 1 shows the final mitigation quantities approved for the site. The site has been placed on the NCDOT On-site Debit Ledger for use within HUC 03030002. Table 2 indicates all mitigation debits that have occurred per regulatory agency approval.

In order to offset 0.38 acres of unavoidable impacts to U-3109A, NCDOT will be debiting the South Buffalo Creek Mitigation Site, with 0.33 acres at a 2:1 ratio and 0.05 ac. at a 1:1 ratio, totaling 0.71 acres of mitigation.

1	l'able	e	l.	Mitigation	1 Quantit	ties Appro	ved

HUC	Mitigation Type	Starting Amount (AC)	Additional Notes
3030002	Riparian Wetland Restoration	16.2	
3030002	Riparian Wetland Restoration	15.53	

Table 2. Mitigation Debits -

Mitigation Type	Debit Amount (Ac)	Status	SITE TIP	Action ID#	Notes
Riparian Wetland	3.36	Close	I-2201F		
Preservation		Out			
Riparian Wetland	1.23	Close	I-2402D mod	199502886	
Preservation		Out			
Riparian Wetland	9.4	Close	U-2525A & I-2402D	199300243	
Preservation		Out			

ТҮРЕ	Debit Amount (Ac)	Status	SITE TIP	Action ID#	Notes
Riparian Wetland Restoration	0.96	Close Out	I-2201F		
Riparian Wetland Restoration	0.35	Close Out	I-2402D mod	199502886	
Riparian Wetland Restoration	0.14	Close Out	Mit Work		
Riparian Wetland Restoration	0.95	Close Out	R-2000AA/AB		
Riparian Wetland Restoration	9.1	Close Out	U-2525A & I-2402D	199300243	
Riparian Wetland Restoration	0.71	Close Out	U-3109A		impacts were 0.38 acres, with 0.33 at 2:1 ratio, 0.05 at 1:1 ratio