



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

January 31, 2026

DANIEL H. JOHNSON
SECRETARY

U. S. Army Corps of Engineers
Water Resources Development Act (WRDA)
Transportation Permitting Branch

NC Division of Water Resources
Transportation Permitting Branch

ATTN: NCDOT Coordinator

NCDOT Coordinator

Subject: Application for:

Section 404 Regional General Permit 50 & 401 General Water Quality Certification
under the Expedited Processing Provisions for **Hurricane Helene Response** for the
Reestablishment of Bridge 42 over Ivy Creek on SR 1576/ Bend of Ivy Road in Madison
County, Division 13, WBS DF18313.205735

Dear NCDOT Coordinators:

The North Carolina Department of Transportation (NCDOT) proposes the following project as the result of damage caused by Hurricane Helene in September 2024: Re-establishment of Bridge 42 over Ivy Creek.

Approvals Requested:

404 Regional General Permit 50: Notification required due to use of RGP 50.

401 General Certification No. 7679: Written authorization not required/ for the record only.

FEMA is the lead federal agency for this project.

Brief Damage Summary and Current Temporary/ Emergency Structure:

The previous 180-foot long, three-span bridge was completely washed away by the storm.
An off-site detour is currently in-use for SR 1576.

Proposed Replacement:

A new three-span, 200-foot-long bridge will be re-established in the same location as the previous bridge.

Avoidance and Minimization:

- The bridge length will be increased.
- The proposed bridge will have no direct discharge into the creek.
- Stormwater runoff is discharged as far away from the stream and at the lowest velocities practicable.
- A riprap free zone will exist under the bridge.

Proposed Activities in Streams:

Impact Site	Impact Category	Permanent Fill	Bank Stabilization	Temporary Impacts	Permit Proposed/ Impact Description
Site 1 Ivy Creek	Maintenance Exemption	--	--	--	--
	Non-Notifying	--	--	--	--
	Notification Required (Not After the fact)	--	--	0.02 acre 73 lf	NWP 3: Two temporary workpads will be constructed at the water's edge to construct the new bridge piers in dry conditions.
	Notification Required (After the fact)	--	--	--	--
	Totals:	--	--	73 lf 0.02 ac	--

The information above is provided in accordance with the "U.S. Army Corps of Engineers, Wilmington District's Information for Hurricane Helene Recovery and Repair Work Conducted by the North Carolina Department of Transportation in Waters of the U.S." dated February 10, 2025.

Bridge 42 Before:



Bridge 42 after:



Endangered Species Act

Protected Species listed from IPaC¹ as of the date of this application:

Common Name	Habitat Present	Survey Dates	Proposed Biological Conclusion	FWS Concurrence Remarks
Gray bat	Yes	n/a	May Affect, Likely to Adversely Affect	Attached
Tricolored bat	Yes	n/a	May Affect, Likely to Adversely Affect	Attached
Eastern hellbender (Proposed) ²	n/a	n/a	n/a	n/a
Monarch butterfly (Proposed) ²	n/a	n/a	n/a	n/a

1 IPaC – Information for Planning and Consultation (US Fish and Wildlife Service)
2 Due to the recent listings of Eastern hellbender and monarch butterfly within the proposed action area, NCDOT does not have complete information at this time. It is anticipated that construction will be complete by the timeframes proposed for full listing, should the species be formally listed.

Historic Resources Summary (documentation included)

106 Topic	Findings
Historic Architecture	The NCDOT 106 Programmatic Agreement (PA) checklist was completed for this project (attached). The checklist determined the project is exempt from further Section 106 review in accordance with NCDOT's Section 106 PA.
Archaeology	
Tribal Coordination	The PA checklist exempts the project from tribal coordination.

If you have any questions or need additional information, please contact Michael Turchy, at maturchy@ncdot.gov or (919) 707-6157.

Sincerely,

 Digitally signed by
Michael Turchy

Michael A. Turchy
Environmental Coordination and Permitting Group Leader

ePCN

U.S. Army Corps of Engineers (USACE) NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN) For use of this form, see 33 CFR 330; the proponent agency is CECW-CO-R.		Form Approved - OMB No. 0710- 0003 Expires: 2027-10-31	
DATA REQUIRED BY THE PRIVACY ACT OF 1974			
<p>Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Program of the Corps of Engineers (Corps); Final Rule 33 CFR 320-332.</p> <p>Principal Purpose Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.</p> <p>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 the agency coordination process.</p> <p>Disclosure Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can</p>			
<p>The public reporting burden for this collection of information, 0710-0003, 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 the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. 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.</p>			
PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.			
<p>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 <i>sample drawings and/or instructions</i>) 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.</p>			
(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)			
1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
		01/31/2026	
(ITEMS BELOW TO BE FILLED BY APPLICANT)			
5. APPLICANT'S NAME		8. AUTHORIZED AGENT'S NAME AND TITLE (<i>agent is not required</i>)	
First – Michael	Middle –	Last – Turchy	First –
Company – North Carolina Department of Transportation		Middle –	
Company Title –		Last –	
E-mail Address – maturchy@ncdot.gov		E-mail Address –	
6. APPLICANT'S ADDRESS		9. AGENT'S ADDRESS	
Address – 1598 Mail Service Center		Address –	
City – Raleigh	State – NC	ZIP – 27606	Country – US
7. APPLICANT'S PHONE NOs. with AREA CODE		10. AGENT'S PHONE NOs. with AREA CODE	
a. Business	b.	c. Fax	a.
+19197076157		b.	
		c. Fax	

STATEMENT OF AUTHORIZATION

11. I hereby authorize, to act in my behalf as my agent in the processing of this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

SIGNATURE OF APPLICANT

DATE**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

12. PROJECT NAME or TITLE (*see instructions*)

NCDOT / Helene Bridge 42 / Ivy Creek / Bend of Ivy Road (SR 1576) / Madison / Div 13

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)

Latitude: 35.793978 °N Longitude: -82.6133258 °W

Address: 1708 Bend of Ivy Rd

City: Marshall State: NC Zip: 28753

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

Section –

Township –

Range –

County – Madison County

Project Area – 0.388816 Acres

State Tax Parcel ID –

17. DIRECTIONS TO THE SITE

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE

GP 50 - NCDOT - Bridges, Road Widening and Interchanges

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

The North Carolina Department of Transportation (NCDOT) proposes to restore Bridge 42 over Ivy Creek as the result of damage caused by Hurricane Helene in September 2024.

404 Regional General Permit 50: Notification required due to use of RGP 50.

401 General Certification No. 7679: Written authorization not required/ for the record only.

FEMA is the lead federal agency for this project.

The previous 180-foot long, three-span bridge was completely washed away by the storm. An off-site detour is currently in-use for SR 1576.

A new three-span, 200-foot-long bridge will be re-established in the same location as the previous bridge.

Transportation/ Bridge Restoration project/ result of Hurricane Helene

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

-The bridge length will be increased.

-The proposed bridge will have no direct discharge into the creek.

-Stormwater runoff is discharged as far away from the stream and at the lowest velocities practicable.

-A riprap free zone will exist under the bridge.

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

To restore a bridge washed away by Hurricane Helene.

22. QUANTITY OF WETLANDS, STREAMS, OR OTHER TYPES OF WATERS DIRECTLY AFFECTED BY PROPOSED NATIONWIDE PERMIT ACTIVITY
(*see instructions*)

Acres	Linear Feet	Cubic Yards Dredged or Discharged
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Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. (*see instructions*)

24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and/or the loss of greater than 3/100-acre of stream bed and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) and/or paragraph (d) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

25. Is any portion of the nationwide permit activity already complete? Yes No

If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

Eastern Hellbender,Gray bat,Monarch butterfly,Tricolored bat

ADDITIONAL AFFECTED SPECIES:

See included ESA Consultation.

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

The NCDOT 106 Programmatic Agreement (PA) checklist was completed for this project (included). The checklist determined the project is exempt from further Section 106 review in accordance with NCDOTs Section 106 PA.

28. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

29. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? Yes No

If "yes", please provide the date your request was submitted to the Corps district:

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (see *instructions*)

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Michael Turchy

01/31/2026

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The pre-construction notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in Block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguise a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

**Instructions for Preparing a
Department of the Army
Nationwide Permit (NWP) Pre-Construction Notification (PCN)**

Blocks 1 through 4. To be completed by the Corps of Engineers.

Block 5. Applicant's Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the preconstruction notification, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant's Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed Nationwide Permit Activity Name or Title. Please provide a name identifying the proposed NWP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the NWP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed NWP activity is located at a site having a street address (not a box number), please enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed NWP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed NWP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed NWP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed NWP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific Nationwide Permit(s) You Propose to Use. List the number(s) of the Nationwide Permit(s) you want to use to authorize the proposed activity (e.g., NWP 29).

Block 19. Description of the Proposed Nationwide Permit Activity. Describe the proposed NWP activity, including the direct and indirect adverse environmental effects the activity would cause. The description of the proposed activity should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide sketches when necessary to show that the proposed NWP activity complies with the terms of the applicable NWP(s). Sketches usually clarify the activity and result in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed NWP activity (e.g., a conceptual plan), but do not need to be detailed engineering plans.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20. Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed NWP activity. The description of any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or additional mitigation measures.

Block 21. Purpose of Nationwide Permit Activity. Describe the purpose and need for the proposed NWP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed Nationwide Permit Activity. For discharges of dredged or fill material into waters of the United States, provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed NWP activity. For structures or work in navigable waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, or occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed NWP activity.

For multiple NWPs, or for separate and distant crossings of waters of the United States authorized by NWPs 12 or 14, attach an extra sheet of paper marked Block 21 to provide the quantities of wetlands, streams, or other types of waters filled, flooded, excavated, or drained (or dredged or occupied by structures, if in waters subject to Section 10 of the Rivers and Harbors Act of 1899) for each NWP. For NWPs 12 and 14, include the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained for each separate and distant crossing of waters or wetlands. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Identify Any Other Nationwide Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list other separate and distant crossings of waters and wetlands authorized by NWPs 12 or 14 that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 24. Compensatory Mitigation Statement for Losses of Greater Than 1/10-Acre of Wetlands and/or of Greater Than 3/100-Acre of Stream Bed When Pre-Construction Notification is Required. Paragraphs (c) and (d) of NWP general condition 23 require compensatory mitigation at a minimum one-for-one replacement ratio for all wetland losses that exceed 1/10-acre and/or for all losses of stream bed that exceed 3/100-acre, unless the district engineer determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed NWP activity are no more than minimal without compensatory mitigation, and provides an activity-specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than 1/10 acre and/or for losses of stream bed that exceed 3/100-acre, or provide an explanation of why the district engineer should not require wetland and/or stream compensatory mitigation for the proposed NWP activity. If more space is needed, attach an extra sheet of paper marked Block 24.

Block 25. Is Any Portion of the Nationwide Permit Activity Already Complete? Describe any work that has already been completed for the NWP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed NWP activity, or if the proposed NWP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the Nationwide Permit Activity. If you are not a Federal agency, and if any historic properties have the potential to be affected by the proposed NWP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the Nationwide Permit Activity Would Occur in such a River. If the proposed NWP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit <http://www.rivers.gov/>.

Block 29. Nationwide Permit Activities that also Require Permission from the Corps Under 33 U.S.C. 408. If the proposed NWP activity also requires permission from the Corps under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a Corps federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the Corps district having jurisdiction over that project.

Block 30. Other Information Required For Nationwide Permit Pre Construction Notifications. The terms of some of the Nationwide Permits include additional information requirements for preconstruction notifications:

- * NWP 3, Maintenance –information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
- * NWP 31, Maintenance of Existing Flood Control Facilities –a description of the maintenance baseline and the dredged material disposal site.
- * NWP 33, Temporary Construction, Access, and Dewatering –a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre project conditions.
- * NWP 44, Mining Activities –if reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre construction notification.
- * NWP 45, Repair of Uplands Damaged by Discrete Events –documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
- * NWP 48, Commercial Shellfish Aquaculture Activities –(1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).
- * NWP 49, Coal Remining Activities –a document describing how the overall mining plan will result in a net increase in aquatic resource functions must be submitted to the district engineer and receive written authorization prior to commencing the activity.
- * NWP 50, Underground Coal Mining Activities –if reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre construction notification.

If more space is needed, attach an extra sheet of paper marked Block 30.

Block 31. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the NWP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the NWP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the NWP activity (including compliance with special conditions, mitigation, etc.).

DELINeATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. The 45 day PCN review period will not start until the delineation is submitted or has been completed by the Corps.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient

drawings should also be included. Please submit one original, or good quality copy, of all drawings on 8½x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed NWP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived (see NWP general condition 25). Some States, Tribes, or EPA have issued water quality certification for one or more NWPs. Please check the appropriate Corps district web site to see if water quality certification has already been issued for the NWP(s) you wish to use. For proposed NWP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur (see NWP general condition 26). Some States have issued Coastal Zone Management Act consistency concurrences for one or more NWPs. Please check the appropriate Corps district web site to see if Coastal Zone Management Act consistency concurrence has already been issued for the NWP(s) you wish to use.

Appendix B. Aquatic Resource Inventory:

<i>Aquatic Resource Name</i>	<i>State</i>	<i>Cowardin System</i>	<i>Cowardin Class</i>	<i>HGM Class</i>	<i>Local Waterway Name</i>	<i>Measurement Type</i>	<i>Measurement Amount</i>	<i>Measurement Units</i>	<i>Waters Type</i>	<i>Latitude</i>	<i>Longitude</i>
Ivy Creek	NORTH CAROLINA					Area	0.291365	ACRE	DELIN.NOJD-404	35.794013 2	-82.613331

Appendix C. Impact Inventory:

Water Name	Impact Name	Activity	Type of Material Being Discharged	Resource Type	Permanent Loss (Y/N)	Impact Duration	Amount Type	Proposed Length	Proposed Width	Proposed Amount	Amount Units
Ivy Creek	Temporary Workpad	Discharge of fill material	rip rap	Other	No	Temporary	Fill Area			0.02	Acres

Provide any additional information you may have about the proposed quantity of wetlands, streams, or other types of waters directly affected by the proposed activity. This level of detail is helpful to better understand the type of impacts that are proposed for your project.

Two temporary workpads will be constructed at the waters edge to construct the new bridge piers in dry conditions. This will result in 73 linear feet (0.02 acre) of temporary workpads.

Appendix H. Supporting Information:

<i>Document Type</i>	<i>Document Created Date (YYYY-MM-DD)</i>	<i>Document Label</i>	<i>Information Source/Citation</i>	<i>Uploaded file name</i>
Historic Properties Cultural Resources Information	2026-01-31	Section 106 Information	NCDOT	Madison 42 2024-11-06 106 PA checklist.pdf
Endangered Threatened Species Information	2026-01-31	ESA Consultation	NCDOT	Madison 42 2025-09-04 USFWS Concurrence.pdf
Project Plans	2026-01-31	Permit Drawings	NCDOT	Madison 42 2026-01-22 Permit Drawings.pdf
Other Information	2026-01-31	Detailed Project/Impact descriptions	NCDOT	Madison 42 2026-01-31 Permit Application Cover Letter.pdf

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT – PARTNER APPENDIX

For use of this form, see 33 CFR 325. The proponent agency is CECW-COR.

AUTHORITIES: The Department of Army Corps of Engineers (Corps) and partner entities have established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and its partners. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. This supplemental information is provided to the partner entity along with the standard regulatory forms.

PARTNER INFORMATION

ORGANIZATION:	PARTNER ID:	NAME AND CODE:
NC Division of Water Resources (DWR)		Form Name: NATIONWIDE/GENERAL PERMIT - DWR 401 Application Form Form Code: NCDWR 401

In North Carolina, many activities covered by Nationwide and Regional General Permits, as well as Individual Permits, also require a 401 Water Quality Certification from the Division of Water Resources. To streamline the application process for both the U.S. Army Corps of Engineers (USACE) and the North Carolina Division of Environmental Quality (NCDEQ) - Division of Water Resources (DWR), we have collaborated on this joint application form.

This joint application form serves to fulfill reporting requirements for both agencies under Sections 401 and 404 of the Clean Water Act, and Section 10 of the Rivers and Harbor Act of 1899, for specific activities permitted through Nationwide Permits (NWPs), Regional General Permits (RGPs), and Individual Permits. The RRS is now the preferred method for submitting application information for these permits.

For questions, please contact the USACE at (910) 251-4633.

The Wilmington District and the North Carolina Department of Environmental Quality (NCDEQ) have collaborated to develop a Joint Permit Application (JPA) within the Regulatory Request System (RRS) for use with Nationwide Permits (NWP) and Regional General Permits (RGP), as well as, Individual Permits. This system functions similarly to previous versions of the Pre-Construction Notification form (also known as e-PCN). The RRS is an online platform that enables applicants to electronically upload and submit all required information to the reviewing agencies.

The RRS JPA fulfills the application and reporting requirements for both the U.S. Army Corps of Engineers (USACE) and NCDEQ for activities authorized under Sections 401 and 404 of the Clean Water Act, as well as Section 10 of the Rivers and Harbors Act of 1899.

USACE/NCDWR Joint Application Form

For Nationwide Permits and Regional General Permits
(along with corresponding Water Quality Certifications)

SUPPLEMENTAL INFORMATION COLLECTED

ADDITIONAL CONTACT INFORMATION - Property Owner

- Is the owner the same as the applicant?
 - Yes
- Provide Primary Property Owner information
 - Please see the JPA_ContactReport.xlsx to review the provided contact data.
- Provide Additional Property Owner information
 - Please see the JPA_ContactReport.xlsx to review the provided contact data.

PROCESSING INFORMATION -

- Does the project involve maintenance dredging funded by the Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund OR involve the distribution or transmission of energy or fuel (including natural gas, diesel, petroleum, or electricity)?
 - No
- Is this project connected with (American Rescue Plan Act) ARPA funding or S.L. 2023-134 (earmark)?
 - No
- Please select:
 - Not Applicable (Question not presented)
- Please provide the DWI ARPA Funding Project Number (ie: SRP-W-ARP-1234 or SRP-W-134-1234):
*The DWI Funding Project number can be located on the "Letter of Intent to Fund" (LOIF) or "Offer and Acceptance Letter". If you do not know your DWI project #, please contact your DWI project manager or fund recipient (e.g., LGU).
 - Not Applicable (Question not presented)
- Is this a NC Division of Mitigation Services (NCDMS) Project? Note - Select Yes only if NCDMS is the applicant/co-applicant.
 - No
- Is this project a public transportation project?
 - Yes
- Is this a NC Department of Transportation (NCDOT) project?
 - Yes
- (NCDOT only) T.I.P. (Transportation Improvement Program) or state project number:
 - Not Applicable (Question not presented)
- (NCDOT only) WBS #
 - DF18313.205735
- Application for NC Division of Water Resources (DWR) Certification.
Type(s) of approval sought from the DWR? (Select all that apply)
 - 401 Water Quality Certification - Courtesy Copy Only
- Is this a modification OR new project with existing ID?
 - No
- Please provide the DWR ID number.
 - Not Applicable (Question not presented)
- Is the project located in any of NC's twenty coastal counties?
 - No
- Is the project located within a NC Division of Coastal Management (DCM) Area of Environmental Concern (AEC)?
 - Not Applicable (Question not presented)
- Is the project located in a designated trout watershed? [Learn more about Trout](<https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/>)

- Yes
- If yes, attach a copy of existing correspondence from the Wildlife Resource Commission Office.
 - Not Applicable (Question not presented)

WATERS DETAILS -

- Name of nearest waterbody? [Surface Water Lookup](<https://experience.arcgis.com/experience/7073e9122ab74588b8c48ded34c3df55/>)
 - Ivy Creek
- Does the proposed activity impact perennial or intermittent streams?
 - Yes
- Please ensure that the Aquatic Resource Inventory section includes all perennial and intermittent streams and be sure to identify them with appropriate Cowardin codes.
(Click the Aquatic Resources Inventory in the menu on the left to navigate to that section.)
- Use the Cowardin Code "R2 or R3" for perennial. Use Cowardin Code "R4" for intermittent.
***IF NO CODE PROVIDED, WATERS WILL BE ASSUMED TO BE PERENNIAL.
 - Not Applicable (Question not presented)

NON-JD IMPACT DETAILS - NOTE: Questions only appear in this section when 'Non-404 Jurisdictional Waters Permit' has been included among the Type(s) of approval sought from the DWR.

- Will the project result in impacts to Non-404 JD waters?
 - Not Applicable (Question not presented)
- Please ensure that the associated Non-404 Jurisdictional Waters have been entered in the Aquatic Resource Inventory section of the Permit Application. Use the Aquatic Resource Type of "DELIN.NOJD-404".
(Click the "Aquatic Resources Inventory" option in the menu on the left to navigate to that section.)
 - Not Applicable (Question not presented)

BUFFER IMPACTS AND MITIGATION SUMMARY - Additional impacts and mitigation not previously covered in this application: Buffers

- Will project occur in an area subject to state riparian buffer regulations?
 - No
- Will project result in any impacts within a protected riparian buffer?
 - Not Applicable (Question not presented)
- Which protected basin(s) is the project located within?
 - Not Applicable (Question not presented)
- Other Protected Basin
 - Not Applicable (Question not presented)
- Are the buffer regulations implemented by a delegated local government?

- Not Applicable (Question not presented)
- Please specify which local government.
 - Not Applicable (Question not presented)
- Impact Details
 - Please see the JPA_DynamicTableReport.xlsx to review the provided data.
- Total Temporary Buffer Impacts
 - Not Applicable (Question not presented)
- Total Permanent Buffer Impacts
 - Not Applicable (Question not presented)
- Total Combined Buffer Impacts
 - Not Applicable (Question not presented)
- Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?
 - Not Applicable (Question not presented)
- If yes, you must fill out this entire section - please contact DWR for more information.

Identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required in the table below.

 - Please see the JPA_DynamicTableReport.xlsx to review the provided data.
- How is buffer mitigation proposed to be met?
 - Not Applicable (Question not presented)
- If payment to mitigation bank or NCDMS, attach a valid statement of availability or DMS acceptance letter. OR Attach mitigation plan for review.
 - Not Applicable (Question not presented)

STORMWATER MANAGEMENT PLAN -

- Does this project disturb >1 acre of land?
 - Yes
- Is this an NCDOT project subject to compliance with NCDOT's Individual NPDES permit NCS000250?
 - Yes
- Has SELDM (Stochastic Empirical Loading and Dilution Model) been run for this project?
 - No
- Provide reasoning for not utilizing SELDM model.
 -
- Is this project subject to review and approval under a state post-construction stormwater program (DEMLR) or state-approved local government stormwater program?
 - Not Applicable (Question not presented)
- What entity has reviewed/is reviewing the Stormwater Management Plan?

- Not Applicable (Question not presented)
- What is the Stormwater Management Plan status?
 - Not Applicable (Question not presented)
- Does this project meet the requirements for low density projects as defined in 15A NCAC 02H.1003(2)? For details on how Low Density Projects are characterized, click the help icon.
 - Not Applicable (Question not presented)
- For low density projects, submit documentation including built-upon area (BUA) delineation, percent BUA calculations, stormwater drainage plan, and designs for vegetated conveyances.
 - Not Applicable (Question not presented)
- For all High Density projects submit a Stormwater Management Plan that includes stormwater control measures for water quality treatment.
 - Not Applicable (Question not presented)

STORMWATER MANAGEMENT IN BUFFERED BASINS - All stormwater generated from high ground within regulated buffer basins must be in compliance with the stormwater management requirements of the applicable buffer rules.

- Does the project comply with the stormwater management requirements of the applicable buffer rules?
 - No
- Please explain why the project does not comply.
 - no applicable buffer rules.

ENVIRONMENTAL DOCUMENTATION -

- Is an environmental document required under NCEPA (01 NCAC 25 .0100)?
 - Yes
- Has the document review been finalized by the State Clearing House?
 - Yes
- Comments
 - Not Applicable (Question not presented)
- Attach a copy of the SEPA final approval document.
 - Madison 42 2025-02-10 CE.pdf File(s) Uploaded

VIOLATIONS -

- Is the site in violation of DWR Water Quality Certification Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), or DWR Surface Water or Wetland Standards or Riparian Buffer Rules (15A NCAC 2B .0200)?
 - No

CUMULATIVE IMPACTS -

- Will this project (based on past and reasonably anticipated future impacts) result in additional development?
 - No
- Provide a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWR policy. [Learn more about Cumulative Impact Policy](https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Policies_Guides_Manuals/CumulativeImpactPolicy.pdf)
 - Not Applicable (Question not presented)
- If not, provide a short narrative description.
 - Not Applicable (Question not presented)

PLEASE NOTE: The system is still under development, and data currently does not transmit electronically to NCDEQ's Division of Water Resources (DWR). Until further notice, applicants must submit completed RRS JPA documents through [NCDEQ's "Project Submittal Interim Form" website](<https://edocs.deq.nc.gov/Forms/Supplemental-Information-Form>). [Additional Instructions](<https://edocs.deq.nc.gov/WaterResources/Browse.aspx?dbid=0&startid=3890140>)

Project Submittal Interim Form



Updated December 4, 2023

Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.

Project Type:*

- For the Record Only (Courtesy Copy)
- New Project
- Modification/New Project with Existing ID
- More Information Response
- Other Agency Comments
- Pre-Application Submittal
- Re-Issuance\Renewal Request
- Stream or Buffer Appeal

Is this application for a project associated with emergency response/repairs from Hurricane Helene impacts to your project or property?*

Yes No

Project Contact Information

Name:

Michael Turchy

Who is submitting the information?

Email Address:*

maturchy@ncdot.gov

Project Information

Project Name:*

NCDOT / Helene Bridge 42 / Ivy Creek / Bend of Ivy Road (SR 1576) / Madison / Div 13

Is this a public transportation project?*

Yes No

Is this a DOT project?*

Yes No

Is the project located within a NC DCM Area of Environmental Concern (AEC)?*

Yes No Unknown

Does this project involve maintenance dredging funded by the Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund, electric generation projects located at an existing or former electric generating facility, or involve the distribution or transmission of energy or fuel, including natural gas, diesel, petroleum, or electricity?*

Yes No

Is this project connected with ARPA funding?*

Yes No

TIP#:

WBS#:

DF18313.205735

(Applies to DOT projects only)

County (ies)*

Madison

Please upload all files that need to be submitted.

Click the upload button or drag and drop files here to attach document

Generated_Turchy_30806_33741_0_Appx_B_Aquatic_Resources.pdf	50.32KB
Generated_Turchy_30806_33741_0_Appx_C_Impacts.pdf	69.26KB
Generated_Turchy_30806_33741_0_Appx_H_Supporting_Files.pdf	51.78KB
Generated_Turchy_30806_33741_0_ENG_6082_PCN.pdf	549.37KB
Generated_Turchy_30806_33741_0_NCDWR 401_JPA_Report.pdf	93KB
Madison 42 2024-11-06 106 PA checklist.pdf	135.86KB
Madison 42 2025-02-10 CE.pdf	767.74KB
Madison 42 2025-09-04 USFWS Concurrence.pdf	606.9KB
Madison 42 2026-01-22 Permit Drawings.pdf	1.93MB
Madison 42 2026-01-31 Permit Application Cover Letter.pdf	438.12KB

Only pdf or kmz files are accepted.

Describe the attachments or add comments:

*

By checking the box and signing box below, I certify that:

- I, the project proponent, hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.
- I, the project proponent, hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- I agree that submission of this online form is a “transaction” subject to Chapter 66, Article 40 of the NC General Statutes (the “Uniform Electronic Transactions Act”);
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the “Uniform Electronic Transactions Act”);
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the online form.

Signature:*



Michael Turchy

Submittal Date:

Permit Drawings



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 3.02; Released April 23, 2024)

WBS Element: DF18313.2057035.F TIP/Proj No: DF18313.2057035.PR County(ies): Madison Page 1 of 2

General Project Information

WBS Element:	DF18313.2057035.PR	TIP Number:	DF18313.2057035.PR	Project Type:	Bridge Replacement	Date:	1/21/2025
NCDOT Contact:	Joel M Davis	Contractor / Designer:	Jason Patskoski, PE				
	Address:	55 orange st Asheville, NC 28801		Address:	324 Blackwell St Suite 1200 Durham, NC 27701		
	Phone:	828-250-3360		Phone:	(919) 732-1300		
	Email:	jmdavis4@ncdot.gov		Email:	jason.patskoski@threeoaksengineering.com		

City/Town:	Marshall	County(ies):	Madison		
River Basin(s):	French Broad	CAMA County?	No		
Wetlands within Project Limits?	No				

Project Description

Project Length (lin. miles or feet):	0.08	Surrounding Land Use:	Rural/Mountainous area with residential land use
Project Built-Upon Area (ac.)	0.3	ac.	Existing Site

Typical Cross Section Description:	SR 1576 (Bend of Ivy Rd) is a proposed two-lane road with 10-ft lanes and 3-ft shoulders. Portions of Bend of Ivy Rd will include shoulder berm gutter. The proposed bridge along Bend of Ivy Rd will be 30' out-to-out and 27'-10" clear roadway. There will be two lanes, each 10' wide, a 4'-8" paved shoulder on the RT and a 3'-2" paved shoulder on the LT.	The existing SR 1576 (Bend of Ivy Rd) was a 2-lane paved roadway with 9' lanes. It had an out-to-out of 30.833' and clear roadway of 28'. The left shoulder was 2' wide and fully paved, and the right shoulder was 8' wide with only 1' paved closest to the lanes. There was guardrail on both sides of the roadway. The roadway was damaged during hurricane helene and the bridge was washed away. The existing typical cross-section description was gathered from the 2024 bridge inspection report.
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Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	180	Year:	2026	Existing:	180	Year:	2026
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General Project Narrative: (Description of Minimization of Water Quality Impacts)	NCDOT Division 13 proposes to replace Bridge 560042 on SR 1576 (Bend of Ivy Road) over a jurisdictional stream (Ivy Creek) in Madison County, North Carolina. The existing roadway was damaged from Hurricane Helene, and the existing bridge was completely washed away. During project construction, minimization measures such as utilizing 2:1 fill slopes to avoid stream impacts. The existing grass lined ditches were retained to the greatest extent practicable to help promote infiltration, and rip rap toe protection was used where this was not feasible. The proposed -L- crossing is a 3-span bridge. To reduce erosion in the stream, rip rap stabilization along the existing and proposed roadway fill slope on the north side. Stream impacts are limited to two temporary causeways to install the interior bents.
	To keep spread outside the travel lanes, deck drains are proposed. No deck drains are above the water.



(Version 3.02; Released April 23, 2024)

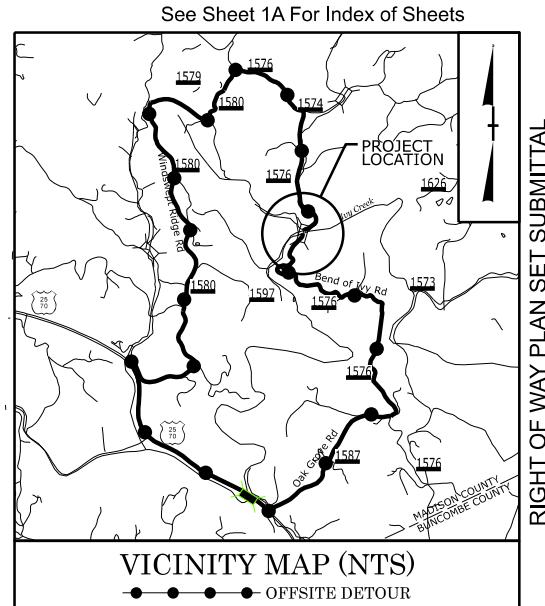
North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS



Page 2 of 2

WBS Element:	DF18313.2057035.F	TIP/Proj No.:	DF18313.2057035.PR	County(ies):	Madison	Page	2	of	2	
General Project Information										
Waterbody Information										
Surface Water Body (1):	Ivy Creek			NCDWR Stream Index No.:	6-96-(11.7)					
NCDWR Surface Water Classification for Water Body		Primary Classification:	Class C							
		Supplemental Classification:	None							
Other Stream Classification:	None									
Impairments:	None									
Aquatic T&E Species?	No	Comments:								
NRTR Stream ID:	Ivy Creek			Buffer Rules in Effect:	N/A					
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	No					
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)			(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)					
(If yes, provide justification in the General Project Narrative)										



NAD 83/ 2011

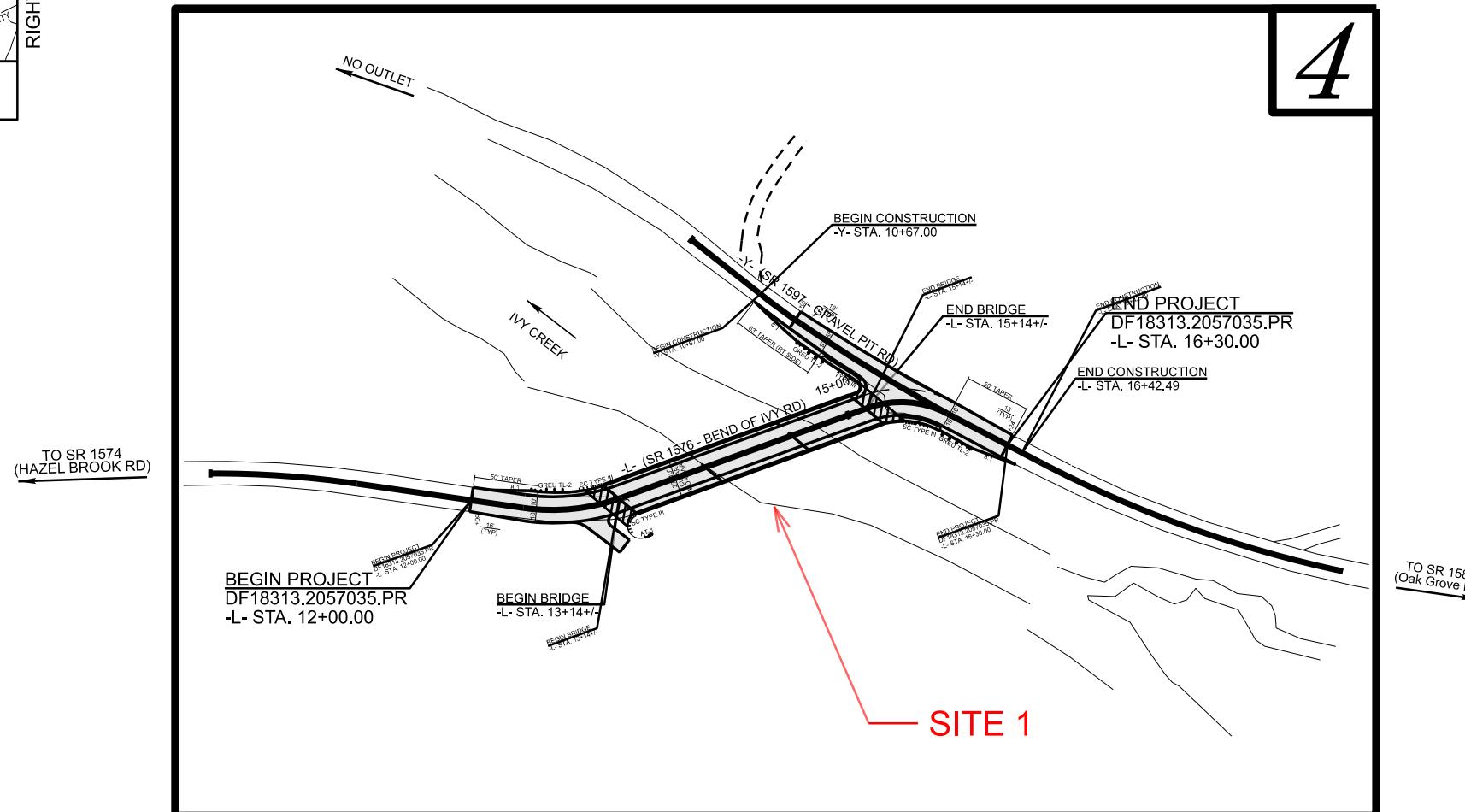
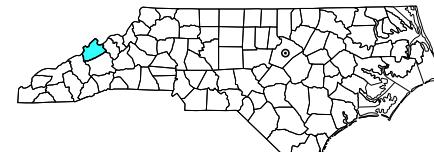
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MADISON COUNTY

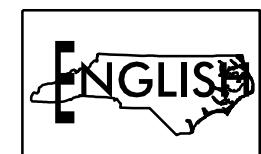
LOCATION: REPLACEMENT OF BRIDGE NO. 560042 ON SR 1576
(BEND OF IVY RD) OVER IVY CREEK

TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	HEET NO.	TOTAL SHEETS
N.C.	DF18313.2057035.PR	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
DF18313.2057035.PR		P.E.	
DF18313.2057035.PR		ROW / UTIL.	
DF18313.2057035.PR		CONST.	



PERMIT DRAWING
SHEET 1 OF 5



CLEARING ON THIS PROJECT WILL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II - MODIFIED.
THERE IS NO CONTROL OF ACCESS ON THIS PROJECT.

GRAPHIC SCALES



DESIGN DATA

ADT (PER RFP) = 180
V = 30 MPH

FUNC CLASS = LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT DF18313.2057035.PR = 0.043 MILES
LENGTH OF STRUCTURE TIP PROJECT DF18313.2057035.PR = 0.038 MILES
TOTAL LENGTH OF TIP PROJECT DF18313.2057035.PR = 0.081 MILES



PLANS PREPARED BY:

VOLKERT
5430 Wade Park Blvd., Suite 410
Durham, NC 27701
Tel: 919-854-0344 Fax: 919-854-0355
NC License No. F-0785

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
DECEMBER 15, 2025

LETTING DATE:
MARCH 14, 2026

PLANS PREPARED FOR:

DIVISION OF HIGHWAYS
DIVISION 13
55 ORANGE ST.
ASHEVILLE, NC 28801

CHRISTOPHER H. LEE, PE
PROJECT ENGINEER
W. CRAIG PARKER, PE
PROJECT DESIGN ENGINEER
JOEL M. DAVIS
NC DOT CONTACT
DIV. 13 ASST. BRIDGE PROGRAM MANAGER

HYDRAULICS ENGINEER

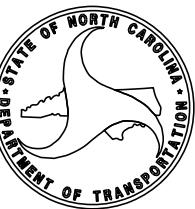
NC Firm License No. F-1334
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Suite 1200
Durham, NC 27701
919.321.3000

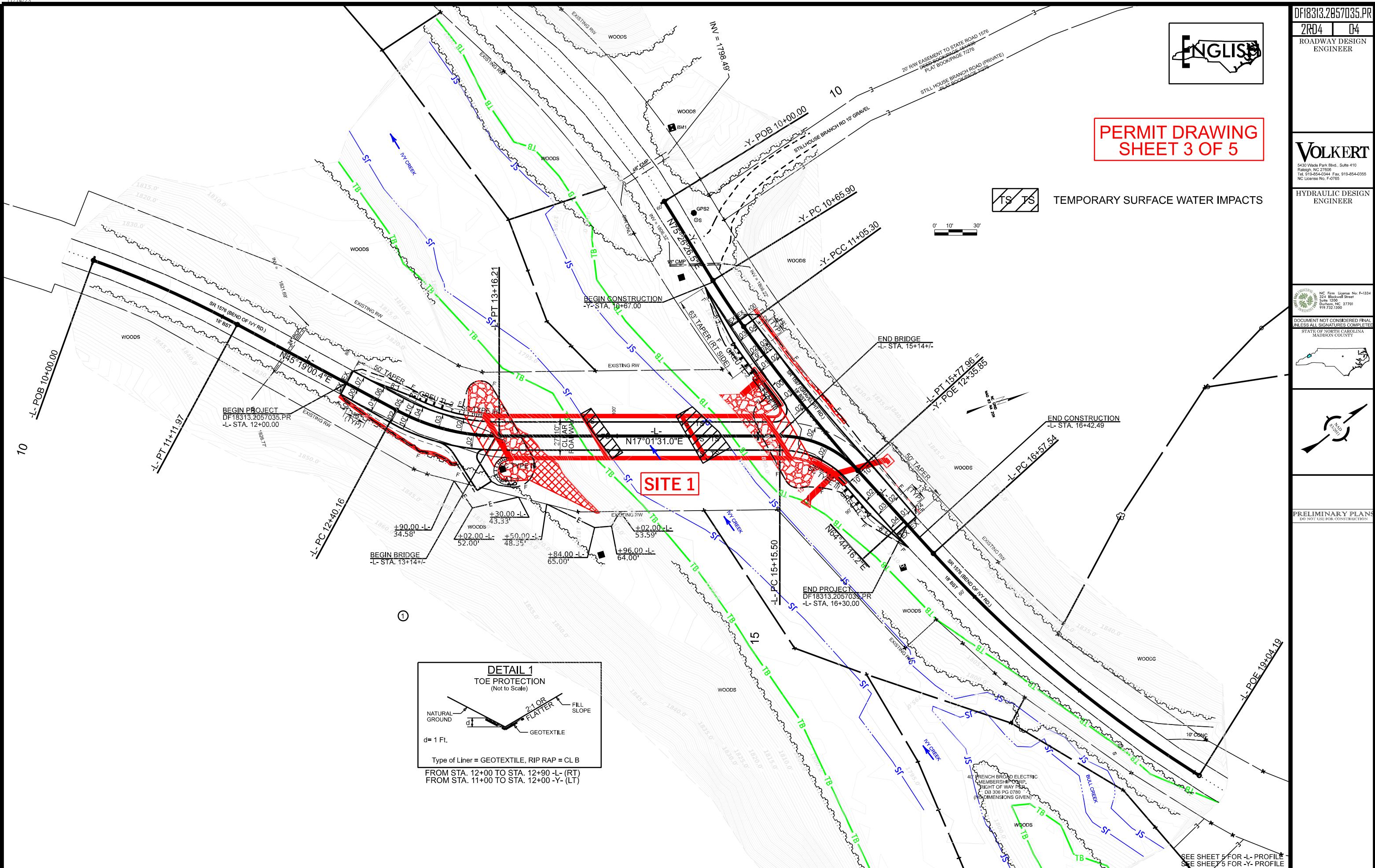
P.E.
SIGNATURE:
ROADWAY DESIGN ENGINEER

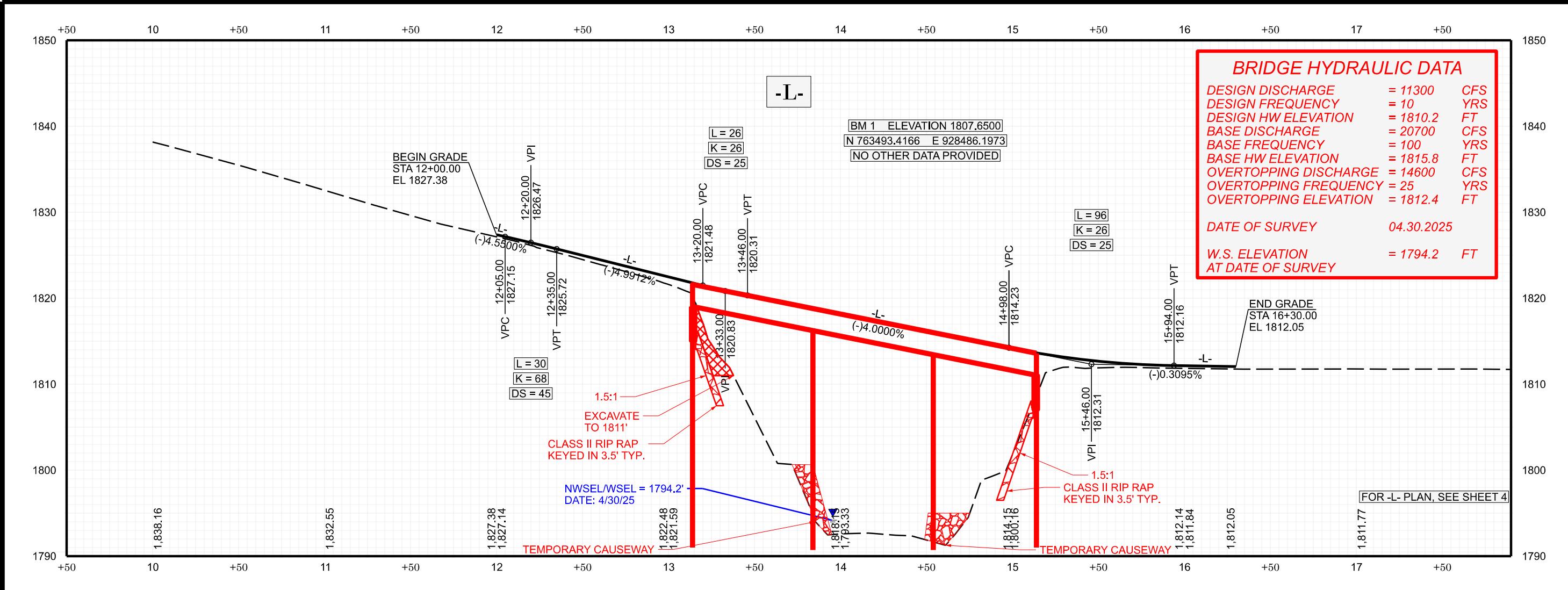
P.E.
SIGNATURE:

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED







VOLKERT

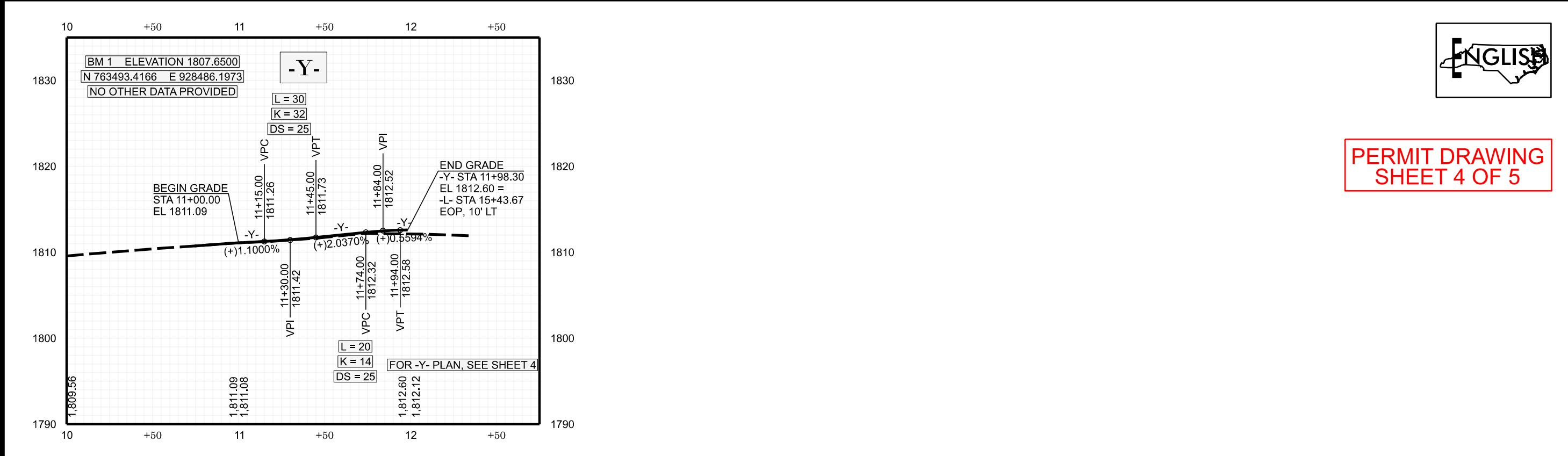
5430 Wade Park Blvd., Suite 410
Raleigh, NC 27606
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NC License No. 1-0785HYDRAULIC DESIGN
ENGINEER

NC Firm License No: F-1334
324 Blakewell Street
Durham, NC 27701
919.322.1000

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

MADISON COUNTY



WETLAND AND SURFACE WATER IMPACTS SUMMARY

*Rounded totals are sum of actual impacts

NOTES:

The temporary surface water impacts due to the temporary causeway includes impacts from the causeways around both end bents

NC DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

01/21/2026
Madison County
DF18313.2057035.PR
DF18313.2057035 PR

ESA Consultation

Biological and Conference Opinions and Informal Consultations – Batch Format

**Replace Multiple Crossing Structures Destroyed by Tropical Storm Helene in
Buncombe, Madison, McDowell, Mitchell, and Yancey Counties, North Carolina**

Service Log #25-276 through 25-299



Prepared by:

U.S. Fish and Wildlife Service
Asheville Ecological Services Office
160 Zillico Street
Asheville, North Carolina 28801

GARY PEEPLES
Digitally signed by GARY
PEEPLES
Date: 2025.09.04 09:55:36
-04'00'

Gary Peeples
Field Supervisor
Asheville Ecological Services Field Office
Asheville, North Carolina

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Consultation History

- **December 2, 2024:** Discussion between U.S. Fish and Wildlife Service (Service) and North Carolina Department of Transportation (NCDOT) regarding consultation batching processes and applicable avoidance and minimization and conservations measures for projects related to Tropical Storm (TS) Helene damage.
- **December 3-6, 2024:** Email correspondence between the Service and NCDOT discussing aspects of batching process and need for a virtual discussion.
- **December 11, 2024:** Virtual meeting between NCDOT and the Service to discuss batching process and avoidance and minimization and conservations measures.
- **August 14, 2025:** NCDOT submitted batched request for informal and formal consultation to the Service.
- **August 18, 2025:** Service asked NCDOT if three projects located in McDowell County submitted to the Western North Carolina programmatic biological opinion for bats would be better suited in this Helene batch submission.
- **August 19, 2025:** NCDOT added three projects in McDowell County to this Helene batch submission.

Background

On September 27, 2024, TS Helene moved across a large swath of Western North Carolina (WNC). Extreme rainfall and high winds resulted in catastrophic damage across much of the region. Record flooding occurred throughout several watersheds, destroying thousands of transportation sites as well as homes and entire communities. Widespread landslides and timber fall contributed to the damage. In the wake of this disastrous event, the North Carolina Department of Transportation (NCDOT) is tasked with responding to, repairing, and [to the extent possible] replacing the transportation infrastructure destroyed by TS Helene. The following informal and formal consultations are presented in batched format to streamline and expedite review of one group of many similar projects. The format utilized in this consultation is intended for TS Helene-related projects and is tailored to the unique challenges and constraints precipitated by this event. Biological determinations presented below are based on the best available scientific data at the time of this document and incorporate the expertise of WNC's Service and partner resource agency biologists.

Projects

The table below represents the projects reviewed in this batch of TS Helene-related projects. Work will involve the replacement of damaged or wholly destroyed crossing structures, which may include minimal tree clearing, grading, demolition, and in-water construction. The current estimated timeline is for these projects to begin in 2025 and be completed by late 2026-early 2027. Additional description of the project-associated activities is provided in Section 2 of this document.

Table 1. Batched Consultation Projects – Crossing Structures

Structure Number	Waterbody	County	Location	Status	Service Log No.
------------------	-----------	--------	----------	--------	-----------------

100110	Broad River	Buncombe	35.4949, -82.2734	Bridge completely gone	25-279
100132	Ivy Creek	Buncombe	35.7897, -82.5338	Bridge completely gone	25-280
100135	Ivy Creek	Buncombe	35.7878, -82.5149	Bridge completely gone	25-281
100139	N. Fork Ivy Creek	Buncombe	35.7788, -82.4556	Bridge damaged but remains, collapsed Crews removed bridge from water	25-282
100147	Dillingham Creek	Buncombe	35.7550, -82.4041	Bridge damaged but remains	25-283
100175	N. Fork Ivy Creek	Buncombe	35.7994, -82.3692	Bridge completely gone	25-284
100200	N. Fork Ivy Creek	Buncombe	35.7994, -82.3692	Bridge completely gone	25-285
100307	Shope Creek	Buncombe	35.6460, -82.4470	Bridge damaged but remains	25-286
100428	Beetree Creek	Buncombe	35.6331, -82.4181	Bridge damaged but remains	25-287
560042	Ivy Creek	Madison	35.7940, -82.6133	Bridge completely gone	25-288
580044	Curtis Creek	McDowell	35.6452, -82.1590	Bridge damaged but remains	25-289
580119	N. Fork Catawba River	McDowell	35.8751, -81.9425	Bridge completely gone	25-290
580285	N. Fork Catawba River	McDowell	35.9047, -81.9427	Bridge completely gone	25-291
580345	Armstrong Creek	McDowell	35.8109, -82.0512	Bridge damaged but remains	25-292
600123	Charles Creek	Mitchell	36.0730, -82.1134	Bridge completely gone	25-293
600152	Left Fork Cane Creek	Mitchell	36.0208, -82.0883	Pipes damaged but remain	25-294
600154	Cane Creek	Mitchell	36.0161, -82.1717	Bridge completely gone	25-295
990100	Ayles Creek	Yancey	35.8795, -82.2229	Bridge destroyed, temporarily replaced with metal rail car bridge	25-296
990014	Banks Creek	Yancey	35.8945, -82.3701	Bridge completely gone	25-297
990156	Colberts Creek	Yancey	35.8010, -82.2080	Bridge destroyed, temporarily installed 3 small culverts	25-298
990047	Mine Fork	Yancey	35.9687, -82.2844	Bridge damaged but remains	25-299
580023	Lake Tahoma	McDowell	35.7281, -82.0924	Bridge damaged but remains	25-276

580079	Buck Creek	McDowell	35.7356, -82.1295	Bridge damaged but remains	25-277
580083	Buck Creek	McDowell	35.7384, -82.1348	Bridge damaged but remains	25-278

Informal Consultation

The NCDOT assessed each project location addressed in this document for the presence of suitable habitat for listed species and for the potential effects of project work on listed species with suitable habitat present. The following table outlines the project locations and associated “No Effect” (NE) determinations, with supporting biological rationale. For this batch of projects there were no “May Affect, Not Likely to Adversely Affect” (NLAA) determinations for any species.

Table 2. Species NE Determinations

Structure Number	Waterbody	Service Log No.	NE and NLAA Species
100110	Broad River	25-279	NE: white irisette (<i>Sisyrinchium dichotomum</i>), rock gnome lichen (<i>Gymnoderma lineare</i>) Rationale: Absence of suitable habitat
100147	Dillingham Creek	25-283	NE: rock gnome lichen Rationale: Absence of suitable habitat
100175	N. Fork Ivy Creek	25-284	NE: rock gnome lichen Rationale: Absence of suitable habitat
100200	N. Fork Ivy Creek	25-285	NE: rock gnome lichen Rationale: Absence of suitable habitat
580044	Curtis Creek	25-289	NE: small whorled pogonia (<i>Isotria medeoloides</i>) Rationale: Absence of suitable habitat
580119	N. Fork Catawba River	25-290	NE: small whorled pogonia Rationale: Absence of suitable habitat
580285	N. Fork Catawba River	25-291	NE: small whorled pogonia Rationale: Absence of suitable habitat
580345	Armstrong Creek	25-292	NE: small whorled pogonia, rock gnome lichen Rationale: Absence of suitable habitat
600123	Charles Creek	25-293	NE: Virginia spiraea (<i>Spiraea virginiana</i>), rock gnome lichen Rationale: Absence of suitable habitat
600152	Left Fork Cane Creek	25-294	NE: Virginia spiraea, rock gnome lichen Rationale: Absence of suitable habitat
600154	Cane Creek	25-295	NE: Virginia spiraea Rationale: Absence of suitable habitat
990100	Ayles Creek	25-296	NE: Virginia spiraea, small whorled pogonia Rationale: Absence of suitable habitat
990014	Banks Creek	25-297	NE: Virginia spiraea, small whorled pogonia Rationale: Absence of suitable habitat
990156	Colberts Creek	25-298	NE: Virginia spiraea, small whorled pogonia

			Rationale: Absence of suitable habitat
990047	Mine Fork	25-299	NE: Virginia spiraea, small whorled pogonia Rationale: Absence of suitable habitat
580023	Lake Tahoma	25-276	NE: rock gnome lichen, small whorled pogonia Rationale: Absence of suitable habitat
580079	Buck Creek	25-277	NE: rock gnome lichen, small whorled pogonia Rationale: Absence of suitable habitat
580083	Buck Creek	25-278	NE: rock gnome lichen, small whorled pogonia Rationale: Absence of suitable habitat

In instances where suitable habitat is absent from the action area, or where project actions would not result in impacts to suitable habitat within the action area, we agree that NE determinations are appropriate.

We believe the requirements under section 7 of the ESA are fulfilled for the species addressed above in relation to the designated projects. However, obligations under section 7 of the ESA must be reconsidered if: (1) new information reveals impacts of this proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) this proposed action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the proposed action.

A species proposed for listing under the ESA is one that the Service or the National Marine Fisheries Service has determined, based on the best available scientific and commercial data may warrant listing as either endangered or threatened. This proposal is a formal step in the process of providing federal protection to species facing potential extinction across all or a significant portion of their range. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective, the protections set forth in the ESA will apply.

On December 13, 2024, eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*) was proposed for listing as endangered under the ESA. Information provided by NCDOT after the originally submitted consultation request for the subject projects indicates that NCDOT has chosen not to conference on eastern hellbender but will consider the species and coordinate with partner resource agencies as project actions move forward.

Biological Opinion and Conference Opinion

1. Introduction

A biological and conference opinion (Opinion) is the document that states the opinion of the Service in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (ESA), as to whether a Federal action is likely to jeopardize the continued existence of species listed as endangered or threatened; or result in the destruction or adverse modification of designated critical habitat.

This document transmits the Service's biological and conference opinions (Opinion) and is based on our review of the proposal to replace several crossing structures (Table 1) and their effects on the federally endangered gray bat (*Myotis grisescens*), federally endangered northern long-eared bat (*Myotis septentrionalis*), and federally proposed endangered tricolored bat (*Perimyotis subflavus*). This Opinion is

based on information provided in the assessment submitted to the Service by the NCDOT, field investigations, correspondence between NCDOT and the Service, communications with experts on the affected species, and other sources of information as cited. The Federal Highway Administration is the lead Federal action agency for these projects, with consultation authority delegated to the NCDOT.

2. Proposed Action

As defined in the Service's section 7 regulations (50 CFR 402.02), "action" means "*all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas.*" The "action area" is defined as "*all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.*" The direct and indirect effects of the actions and activities must be considered in conjunction with the effects of other past and present Federal, state, or private activities, as well as the cumulative effects of reasonably certain future state or private activities within the action areas.

2.1 Action Areas

The project action areas are all areas of construction and include any portions of the project waterbodies, as indicated in Table 3, that may be affected by direct or indirect effects. The action areas are comprised of the:

- 1.) Project construction limits including all project related work such as tree-clearing and grading.
- 2.) Limits of sedimentation effect, anticipated to extend 100 meters (m) (328 feet (ft)) upstream from each bridge and 400 m (1,314 ft) downstream from each crossing structure in each respective river.

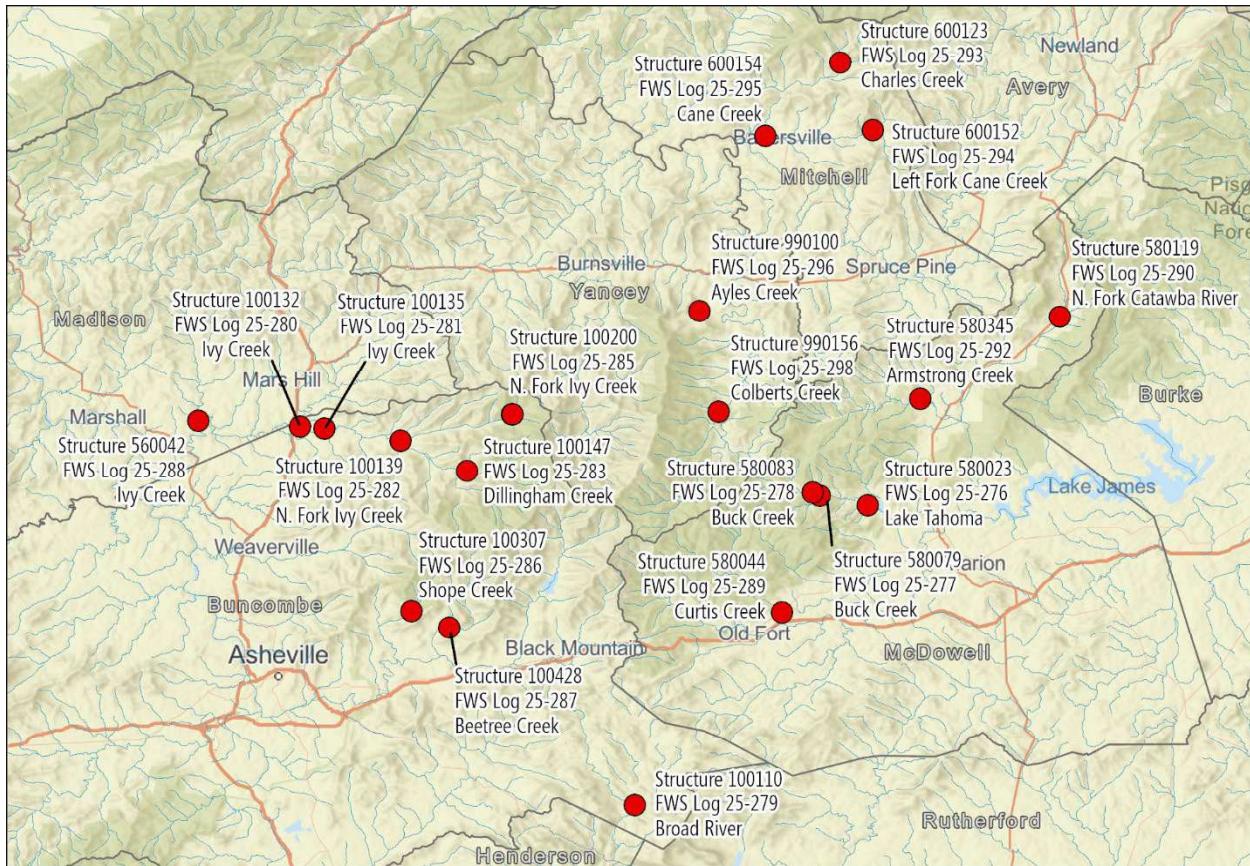
Table 3. Projects that are likely to Adversely Affect (LAA) Listed Species

Structure Number	Waterbody	County	Location	Service Log No.	Taxa Determination
100110	Broad River	Buncombe	35.4949, -82.2734	25-279	Plants: NE Bats: LAA Aquatics: NE
100132	Ivy Creek	Buncombe	35.7897, -82.5338	25-280	Plants: NE Bats: LAA Aquatics: NE
100135	Ivy Creek	Buncombe	35.7878, -82.5149	25-281	Plants: NE Bats: LAA Aquatics: NE
100139	N. Fork Ivy Creek	Buncombe	35.7788, -82.4556	25-282	Plants: NE Bats: LAA Aquatics: NE
100147	Dillingham Creek	Buncombe	35.7550, -82.4041	25-283	Plants: NE Bats: LAA Aquatics: NE

100175	N. Fork Ivy Creek	Buncombe	35.7994, -82.3692	25-284	Plants: NE Bats: LAA Aquatics: NE
100200	N. Fork Ivy Creek	Buncombe	35.7994, -82.3692	25-285	Plants: NE Bats: LAA Aquatics: NE
100307	Shope Creek	Buncombe	35.6460, -82.4470	25-286	Plants: NE Bats: LAA Aquatics: NE
100428	Beetree Creek	Buncombe	35.6331, -82.4181	25-287	Plants: NE Bats: LAA Aquatics: NE
560042	Ivy Creek	Madison	35.7940, -82.6133	25-288	Plants: NE Bats: LAA Aquatics: NE
580044	Curtis Creek	McDowell	35.6452, -82.1590	25-289	Plants: NE Bats: LAA Aquatics: NE
580119	N. Fork Catawba River	McDowell	35.8751, -81.9425	25-290	Plants: NE Bats: LAA Aquatics: NE
580345	Armstrong Creek	McDowell	35.8109, -82.0512	25-292	Plants: NE Bats: LAA Aquatics: NE
600123	Charles Creek	Mitchell	36.0730, -82.1134	25-293	Plants: NE Bats: LAA Aquatics: NE
600152	Left Fork Cane Creek	Mitchell	36.0208, -82.0883	25-294	Plants: NE Bats: LAA Aquatics: NE
600154	Cane Creek	Mitchell	36.0161, -82.1717	25-295	Plants: NE Bats: LAA Aquatics: NE
990100	Ayles Creek	Yancey	35.8795, -82.2229	25-296	Plants: NE Bats: LAA Aquatics: NE
990156	Colberts Creek	Yancey	35.8010, -82.2080	25-298	Plants: NE Bats: LAA Aquatics: NE
580023	Lake Tahoma	McDowell	35.7281, -82.0924	25-276	Plants: NE Bats: LAA Aquatics: NE

580079	Buck Creek	McDowell	35.7356, -82.1295	25-277	Plants: NE Bats: LAA Aquatics: NE
580083	Buck Creek	McDowell	35.7384, -82.1348	25-278	Plants: NE Bats: LAA Aquatics: NE

Figure 1. Projects that are Likely to Adversely Affect (LAA) Listed Species



2.2 Project Description

The details of the proposed project designs for each of the crossing structures in Table 1 are not yet known, given the mass response/repair/rebuild efforts for the hundreds of infrastructure failure projects due to TS Helene destruction. The scale of destruction from TS Helene, and associated response efforts, compel a batched consultation response, and the design-build process be expedited. Thus, exact designs and associated action area impact details are not known at the time of this review. However, project activities and estimated impacts, based on the “knowns” associated with NCDOT’s crossing structure replacement work, are available. At the time of this consultation, the expectation is that the majority of the replacement bridges will be concrete box beam or cored slab structures and the culvert structures will be the same or similar materials to those previously in place. The general and expected elements of these crossing structure replacement projects are described below. The current estimated timeline is for these

projects to be carried out over the next two years.

In-water impacts

Considering the range in structure and waterbody sizes analyzed in this review, and basing amounts on past similarly-sized structure and waterbody NCDOT crossing structure projects in WNC, the estimate of combined temporary and permanent in-water impacts for these projects range from 0.01 – 0.35 acres (or 4,356 – 15,246 square feet) per structure. Some structure replacements will fall in the lower portion of that range of in-water impacts while some will fall in the higher range. These impacts may be in the form of work pad causeways, bent removal and/or placement, and placement of stream-bank stabilization materials.

Tree Clearing, Access Roads, and Demolition

The maximum estimate for tree clearing at structure replacement locations is 0.10 acre. That amount will likely be less at most locations, given the variability in site conditions and the extreme scour (and resulting loss of riparian vegetation) during TS Helene flooding. The season during which clearing will occur is not known for each location. Clearing and grading will occur to allow for access roads and general construction functionality.

Where damaged structures or portions of damaged structures remain in place, demolition will occur. The details of demolition activities and seasonality of demolition will vary by project.

2.3 Avoidance and Minimization and Conservation Measures

NCDOT will employ the following agency Standards, Guides, and Best Practices to avoid and minimize project mediated activities that could negatively impact listed/proposed species or their habitat.

2.3.1 Avoidance and minimization measures (AMMs)

General (regardless of species): The following General AMMs will be implemented on all projects to minimize impacts to listed/proposed species and habitat:

- **General AMM1** - NCDOT will ensure that all operators, employees, and contractors working in areas of suitable habitat for federally listed/proposed species are aware of all NCDOT environmental commitments, including all applicable AMMs and all associated NCDOT guidance documents.
- **General AMM2** - Best management practices (BMP) and sediment and erosion control (SEC) measures will be utilized to prevent non-point source pollution, control storm water runoff, and minimize sediment damage to avoid and reduce overall water quality degradation.
- **General AMM3** - Areas of disturbance, such as tree clearing, grubbing, and grading, will be limited to the maximum extent possible.

Bats - The General AMMs will minimize impacts to listed and proposed bat species. **To the maximum extent possible**, the following AMMs will also be incorporated into project work – though implementation of all bat AMMs below cannot be guaranteed at the time of this consultation, given the scale, scope, and timeline constraints addressed previously.

- Bat AMM Noise - Percussive activities will occur only after tree clearing within the action area has been completed, helping to reduce the exposure of any tree-roosting bats within the action area to high decibel noise.
- Bat AMM Lighting - No new lighting will be added to the action area. Any lighting needed for night work will be directed at the work area and shielded from surrounding waters/landscape, only on when needed, no brighter than necessary, and blue light emissions will be limited.
- Bat AMM Riparian Planting - Disturbed riparian areas will be replanted with native, fast-growing tree and shrub species where feasible, with the understanding that plantings likely cannot be done in utility/drainage/construction easements.

Aquatics- The General AMMs above will minimize impacts to listed/proposed aquatic species. **To the maximum extent possible**, the following AMMs will also be incorporated into project work – though implementation of all aquatic AMMs below cannot be guaranteed at the time of this consultation, given the scale, scope, and timeline constraints addressed previously.

- Aquatic AMM Structure - To the maximum extent possible, structure will be built in the same location as the previous structure, with minimal impact [such as in-water bents] to water resource, built to NCDOT's current improved highway and hydraulic standards.
- Aquatic AMM Equipment - To the maximum extent possible, heavy machinery will not be utilized within the waterbody. Additionally, staging and storage areas for equipment and materials will be managed in such a way to ensure that potential spills and leaks do not have access to the waterbody.
- Aquatic AMM Temporary and Permanent Fill - Any temporary fill (i.e. causeways) or permanent (i.e. bents/piers) fill in excess of what was previously present will be avoided and minimized to the maximum extent possible.
- Aquatic AMM Abutments - Existing abutments will be completely removed unless removal results in destabilizing of banks or increases the adverse effect to listed/proposed aquatic species.
- Aquatic AMM Deck Drains - Deck drains that empty directly to the waterbody below will not be included in new bridge designs. Surface water drainage transport will be designed to incorporate improved treatment prior to drainage entering the waterbody.
- Aquatic AMM Erosion Control Matting - Coir fiber matting will be utilized instead of plastic or other synthetic matting.

2.3.2 Conservation Measures (CMs)

CMs represent actions, pledged in the project description, that the action agency will implement to further the recovery of the species under review. The beneficial effects of CMs are considered in making determinations of whether the projects will jeopardize the species under consideration in this document.

Bat CM - Tree Clearing Bat Fund Contribution: For individual bridge projects that are LAA bat species during tree removal, the NCDOT will contribute a payment* to the N.C. Nongame Terrestrial Species Fund (or other Service-approved Fund) in support of the recovery of federally protected bat species.

Bat CM Structure Removal Bat Fund Contribution: For individual bridge projects that are LAA bat species during structure removal, the NCDOT will contribute a payment** to the N.C. Nongame Terrestrial Species Fund (or other Service-approved Fund) in support of the recovery of federally listed bat species.

*Contributions made will be based on a 2:1 ratio multiplier specified for the non-volant pup season (May 15-July 31). This ratio offers the most protective coverage based on the current unknowns surrounding time-of-year clearing. The amount will be determined using the United States Department of Agriculture Farm Real Estate Value for North Carolina for 2024 (\$5,190/acre).

https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0824.pdf

If tree clearing amount is unknown, an assumed clearing acreage of 0.1 acre will be used based on estimates from previous clearing work at crossing structures (NCDOT 2015). The formula is calculated as follows:

$\$5,190 \times 0.1 \text{ ac} = 519 \times 2 \text{ (critical life stage multiplier)} = \$1,038 \text{ contribution.}$

**Structures with documented bat use are generally larger than the average bridge, with a median size of 0.10 acre (length x width) (Service 2020b). Therefore 0.10 acre per crossing structure is used to calculate the amount of suitable bat habitat lost for projects involving structure impacts. However, the impacts to bats that may be displaced during structure demolition/construction are considered temporary in nature because the replacement structures are understood to provide adequate roosting habitat, as addressed in the project description. Additionally, the structures being analyzed here are all damaged and understood to provide reduced areas of suitable bat roosting habitat. Therefore, the 1.5:1 ratio multiplier was determined to be appropriate. If the structures are demolished between March 15 – November 15 (the period during which gray bats could be present on the landscape, which also encompasses the northern long-eared bat and tricolored bat active seasons) a structure-related payment will be made; if not, no structure-related payment will be made. The formula is calculated as follows: $\$5,190 \times 0.1 \text{ ac} = 519 \times 1.5 \text{ (temporary impact multiplier)} = \$779 \text{ contribution/structure.}$

3. Status of the Species

This section summarizes best available data about the biology and current condition of the gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis*), and tricolored bat (*Perimyotis subflavus*) throughout their ranges that are relevant to formulating an opinion about the actions. More in-depth species information such as species status assessments can be found at the species-specific pages at the Service's Environmental Conservation Online System (ECOS): ecos.fws.gov/ecp/

3.1 Gray Bat

Scientific Name:	<i>Myotis grisescens</i>
Status:	Endangered
Date of Listing:	April 28, 1976
Critical Habitat:	None designated

3.1.1 Description and Life History

The gray bat is a medium-sized insectivorous bat with an overall length of about 3.5 inches and a wingspan of 10 to 11 inches. As the name implies, gray bats have gray fur, but the hair often bleaches to reddish-brown by early summer. The gray bat largely occurs in limestone karst areas, meaning a landscape marked by caves, sinkholes, springs and other features, of the southeastern and midwestern United States.

Gray bats use caves year-round for roosting and hibernating. Seasonal occupancy of caves differs between summer roost and winter hibernacula, and gray bats are known to migrate more than 300 miles between the two. While gray bats are predominantly found roosting in caves, they are known to roost in structures including buildings, bridges and culverts. Bats emerge from summer roosts early in the evening and forage along waterbodies adjacent to forested areas. The species has been documented traveling from a few miles to 20 or more miles between their day roosts and nightly foraging areas.

Adult bats mate upon arrival at the wintering caves in September or early October. Hibernation occurs in deep vertical caves in the winter, where colder temperatures are preferable. Gray bats require consistently cold temperatures to maintain hibernation and conserve energy in the winter months. The adult females will emerge from hibernation in late March or early April. At that time, the females who have mated will begin their pregnancy, dispersing to maternity caves. Males and juveniles emerge shortly after the females and disperse to bachelor caves. Gray bats are documented using bridges and culverts as roosting habitat during the spring, summer, and fall and show strong philopatry to their summer ranges and typically use the same roost sites year after year (Tuttle 1976; Martin 2007). Gray bats are most observed in bridges with concrete and their preferred roosting location is in the vertical expansion joints of a bridge deck above piers (NCDOT 2023a), though they can also roost in clogged deck drains and other sheltered areas on crossing structures. According to approximately 2,000 bridge surveys conducted throughout WNC from 2000 - 2023, gray bats have been recorded roosting in bridges at a usage rate of 3% (NCDOT 2023a), with bridge use observed in the covered area from March – November. Up to 1,000 individuals, including males and females, have been observed day-roosting throughout the summer in expansion joints between box beams at two separate bridges (Weber et al. 2020). Sporadic summer use of other concrete type bridges has also been noted for smaller numbers of day-roosting gray bats (NCDOT, 2023a). Gray bats have also been observed within culverts, most commonly of concrete material.

Gray bats primarily forage over open water bodies, such as rivers, streams, lakes, and reservoirs, and associated riparian areas (Tuttle 1976; LaVal et al. 1977; Weber et al. 2020). On a macroscale, gray bats feed in aquatic-based habitats where specific types of insect prey are abundant (Brack and LaVal 2006). Bats typically travel individually or in small groups that forage in an area for a short period before moving to another area. Studies suggest that gray bats visit multiple foraging areas during the night and travel frequently between these areas.

3.1.2 Status and Distribution

The primary range of gray bats is concentrated in the cave regions of Alabama, Arkansas, Kentucky, Missouri and Tennessee, though its overall range stretches from Virginia to Oklahoma, and Missouri to Alabama. WNC is on the eastern edge of the bat's range. In North Carolina, the gray bat is currently documented from 14 western counties and is possible in an additional 10 counties. Most gray bat occurrences in WNC are centered on the French Broad and Pigeon River watersheds. Gray bats are generally present in North Carolina from March 15 to November 15, when they leave for winter hibernacula. It is believed that many of the gray bats in North Carolina migrate to hibernacula in Tennessee, using the French Broad River as a commuting pathway. The closest active hibernaculum is

near Newport, Tennessee (Weber et al. 2020), approximately 20 miles from the border with Haywood and Madison Counties in North Carolina.

Ellison et al. (2003) of the U.S. Geological Survey (USGS) statistically analyzed 1,879 observations of gray bats obtained from 334 roost locations in 14 south-central and southeastern states. They determined that 94.4% of the populations showed stable or increasing populations while 6% revealed a decreasing population. For populations where there was a downward population trend, decreases in population numbers were mostly attributed to continued problems with human disturbance. This increasing population trend has been reflected in the work of Sasse et al. (2007), Martin (2007), and again by Elliott in 2008 in looking at high-priority caves. It is estimated that more than 95% of the species range-wide population hibernate in only 9 caves.

Emergence counts conducted by Indiana State University researchers at known roosts in WNC from 2018-2019 suggested there were at least 2,820 gray bats in the French Broad River basin (Weber et al. 2020). Due to 2024 flooding associated with TS Helene, these numbers may be significantly lower now, though at the time of this document, the impacts from Helene on imperiled species numbers are still unknown. Throughout WNC, there are 58 current element occurrences of the gray bat based on N.C. Natural Heritage Program, NCWRC, and NCDOT records; most are from built structures (largely bridges). The number of gray bats found at each occurrence range from 1 to about 1,500 bats, with some roosts surveyed in the Weber et al. (2020) study hosting >1,000 gray bats during certain times of the season. The most recent winter population estimate of gray bats in the closest hibernaculum to the action area (Rattling Cave, near Newport TN) was 250,689 bats (TWRA 2019).

3.1.3 Threats

Cave disturbance and alteration, loss of forested habitat, pollution of waterways, and significant natural factors including those caused by climate change (flooding, freezing, and forest destruction) are threats to gray bats. Gray bats have been infected by the invasive fungus *Pseudogymnoascus destructans*, the causative agent of white-nose syndrome (WNS), a fungal disease contributing to the declines of several bat species in the U.S.; however, WNS is not considered a major threat to the species.

3.2 Northern long-eared Bat

Scientific Name:	<i>Myotis septentrionalis</i>
Status:	Endangered
Date of Listing:	April 1, 2015 as Threatened; November 30, 2022 as Endangered
Critical Habitat:	None designated

3.2.1 Description and Life History

The northern long-eared bat is a wide-ranging species, found in 37 states and eight provinces in North America. The species typically overwinters in caves and mines and spends the remainder of the year in forested habitats. As its name suggests, the northern long-eared bat is distinguished by its long ears, particularly as compared to other bats in the genus *Myotis*.

Northern long-eared bats are a forest bat species that roosts in a variety of forest types and structures. They are known to roost in trees and have also been documented using roost sites such as buildings, artificial roosts, and bridges. During the active season, northern long-eared bats typically roost singly or in maternity colonies underneath bark or more often in cavities or crevices of both live trees and snags (Service 2023). Males' and non-reproductive females' summer roost sites may also include cooler locations, such as caves and mines (Service 2023). According to approximately 2,000 bridge surveys

conducted throughout western North Carolina from 2000 - 2023, northern long-eared bats have been recorded roosting in western North Carolina bridges at a usage rate of 0.2% (NCDOT 2023a) with use documented to occur from May - October. With one exception, all bridge roost records in North Carolina are associated with a water crossing. There are no records of northern long-eared bats roosting in culverts in North Carolina, though they have been documented using culverts in other states. Northern long-eared bats will overwinter in caves or mines and have been documented using railroad tunnels, storm sewers, and bunkers. Length of hibernation varies depending on location. They may hibernate singly or in small groups and can be found hibernating in open areas but typically prefer caves with deep crevices, cracks, and bore holes that protect from drafts. They typically hibernate from September or October to March or April. More than 780 hibernacula have been documented within the northern long-eared bat range.

Prior to hibernation, between mid-August and mid-November, bat activity will increase during the evenings at the entrance of a hibernaculum (fall swarming). Suitable fall swarming habitat is like roosting, foraging, and commuting habitat selected during the summer and is most typically within 4-5 miles of a hibernaculum (Service 2023). Likewise, in the spring they emerge from and stage near hibernacula before moving to maternity areas typically in early April to mid-May; however, they may leave as early as March. Northern long-eared bats also roost in trees near hibernacula during spring staging, and Thalken et al. (2018) found that roost trees were situated within 1.2 miles (2km) of hibernacula during spring staging and the early maternity season. The species migrates relatively short distances between maternity areas and hibernacula.

Northern long-eared bats are more likely to forage under the canopy on forested hillsides and ridges (Nagorsen and Brigham 1993) rather than along riparian areas (Brack and Whitaker 2001; LaVal et al. 1977). Because of this, alternative water sources like seasonal woodland pools may be an important source of drinking water for these bats (rather than just streams and ponds; Franci 2008). Mature forests may be an important habitat type for foraging (Service 2015). Northern long-eared bats have a diverse diet including moths, beetles, flies, leafhoppers, caddisflies, and arachnids (Service 2020a), which they catch while in flight or by gleaning insects off vegetation (Ratcliffe and Dawson 2003).

3.2.2 Status and Distribution

The species' range includes all or portions of 37 eastern and mid-western states and the District of Columbia in the U.S. The northern long-eared bat's range also includes eight Canadian provinces. In WNC, the species range includes all or portions of 26 counties in the western portion of the state.

Prior to the emergence of WNS, northern long-eared bat was abundant and widespread throughout much of its range with 737 occupied hibernacula, a maximum count of 38,181 individuals and its range being spread across >1.2 billion acres in 29 states and 3 Canadian provinces. Numbers vary temporally and spatially, but abundance and occurrence on the landscape were stable (Cheng et al. 2022, p. 204; Wiens et al. 2022, p. 233). Currently, declining trends in abundance and occurrence are evident across much of northern long-eared bat's summer range. Range-wide summer occupancy declined by 80% from 2010–2019. Data collected from mobile acoustic transects found a 79% decline in range-wide relative abundance from 2009–2019 and summer mist-net captures declined by 43–77% compared to pre-WNS capture rates.

There are approximately 169 element occurrences for northern long-eared bat in NC, based on N.C. Natural Heritage Program records, 19 of which are considered historical. The number of bats found at each occurrence ranges from one to more than 80. There have been 22 documented hibernacula, all in caves or mines; however, northern long-eared bats have not been observed using hibernacula in North

Carolina since 2014 (NCWRC personal communication September 2022). The Service estimates that there has been an occupancy drop of 85% and a 24% loss of winter colony sites across the Southeast Representation Unit (RPU) overall since 2006 when white-nose syndrome was first documented (Service 2022a).

3.2.3 Threats

The primary factor influencing the viability of the northern long-eared bat range-wide population is WNS. Other primary factors that influence the decline in northern long-eared bat numbers include wind energy mortality, effects from climate change, and habitat loss.

3.3 Tricolored Bat

Scientific Name:	<i>Perimyotis subflavus</i>
Status:	Proposed Endangered
Date of Proposed Listing:	September 14, 2022
Critical Habitat:	None proposed

3.3.1 Description and Life History

The tricolored bat is one of the smallest bats in North America. The once common species is wide-ranging across the eastern and central US and portions of southern Canada, Mexico and Central America. As its name suggests, the tricolored bat is distinguished by its unique tricolored fur that appears dark at the base, lighter in the middle and dark at the tip.

During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. Additionally, tricolored bats have been observed roosting among pine needles, eastern red cedar (*Juniperus virginiana*), within artificial roost structures, beneath porch roofs, bridges, concrete bunkers, and rarely within caves. Female tricolored bats form maternity colonies and switch roost trees regularly. Maternity colonies typically consist of one to several females and pups. They usually have twins in late spring or early summer, which are capable of flight in four weeks.

During the winter, across much of their range tricolored bats hibernate in caves and mines; although, in the southern United States, where caves are sparse, they often hibernate in culverts, as well as sometimes in tree cavities and abandoned water wells. In the southern US, hibernation length is shorter compared to northern portions of the range. Hibernating tricolored bats do not typically form large clusters; most commonly roost singly, but sometimes in pairs, or in small clusters of both sexes away from other bats (Service 2021). Tricolored bat hibernacula following population crashes from WNS generally host <100 individuals (Service 2021), though solitary hibernation can often occur with this species (Whitaker and Hamilton 1998).

Before entering hibernacula for the winter, tricolored bats demonstrate ‘swarming’ behavior. The peak swarming period for tricolored bats in much of WNC/eastern Tennessee generally starts in mid to late August and extends into November and is a sensitive period for bats. Suitable fall swarming habitat is like roosting, foraging, and commuting habitat selected during the summer. Spring staging is the time period between winter hibernation and spring migration to summer habitat (Service 2023). During this time, bats begin to gradually emerge from hibernation, exit the hibernacula to feed, but re-enter the same or alternative hibernacula to resume daily bouts of torpor (state of mental or physical inactivity). Tricolored bats also roost in trees near hibernacula during spring staging.

Tricolored bats are opportunistic feeders and consume small insects including caddisflies, moths, beetles, wasps, flying ants and flies. The species most commonly forages over waterways and along forest edges.

3.3.2 Status and Distribution

Tricolored bats have a very wide range that encompasses most of the eastern US from Canada to Florida and west to New Mexico (39 states). They can be found throughout North Carolina and are one of the most encountered cave-dwelling species seen in winter, albeit at much lower densities than prior to the arrival of WNS in the state.

There are 147 NC element occurrences of the tricolored bat based on N.C. Natural Heritage Program records, seven of which are considered historical. The number of bats found at each occurrence range from 1 to 3,000 bats. There have been 79 tricolored bat hibernacula documented, including caves (50), mines (22), root cellars (4), and culverts (3). According to approximately 2,000 bridge surveys conducted throughout western North Carolina from 2000 - 2023, tricolored bats have been recorded roosting in bridges at a usage rate of 1.3% (NCDOT 2023a). Tricolored bat bridge use has been documented to occur in western North Carolina from April – October (with one outlier record from 2013 citing February use). Approximately 900 culvert surveys have been conducted in western North Carolina from 2010 – 2023 (NCDOT 2023b) with year-round data coverage. Tricolored bats have been found using culverts in western North Carolina, again at a relatively low rate (0.8% observed use). Culvert use has been observed in western North Carolina from January – April.

For tricolored bats, the Service split the bat's range into three Representation Units (RPUs), two of which, the Northern and Southern RPUs, include the western and eastern halves of WNC, respectively. The Service estimates that, since 2006, the Northern RPU has experienced a 17% decline in summer occupancy and a 57% decline in the number of winter colonies, while the Southern RPU has experienced a 37% decline in summer occupancy and a 24% decline in the number of winter colonies (Service 2021).

3.3.3 Threats

WNS is the primary driver of the species' decline and is predicted to continue to be the primary influence into the future. Wind energy-related mortality is also considered a consequential driver to the bat's viability. Although habitat loss is considered pervasive across the species' range, severity has likely been low given historical abundance and spatial extent; however, as tricolored bat's spatial extent is projected to decline in the future (i.e., consolidation into fewer winter and summer colonies) negative impacts (e.g., loss of a hibernaculum or maternity colony) may be significant.

4. Environmental Baseline

The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process [50 CFR §402.02].

The project action areas contain the existing crossing structures and the roadway approaches, along with the existing utilities and surrounding riparian areas in which project work will occur, and are located in the Environmental Protection Agency Blue Ridge Ecoregion in WNC. Past impacts include the original construction and placement of the crossing structures within waterbodies to facilitate transportation in the surrounding locations. Because this document addresses several projects, more detailed information

regarding other human activities at each location is not included for the purposes of this consultation review.

4.1 Listed and Proposed Bats Within the Action Areas

Structures

Portions of damaged McDowell County crossing structures 023, 044, 079, 083; and Mitchell County crossing structure 152 remain in place; however, suitable structural roosting habitat on all structures is extensively reduced and degraded from pre-storm conditions. For gray bats, primary roost structures can support several hundred to over 1,000 individuals, but most structures with observed gray bat roosting in WNC contain only one to 10 individuals. The bridges or culverts that support higher numbers of gray bats are typically larger than average. Northern long-eared bats are only known to roost on bridges in WNC typically between one and two individuals at any given time. Tricolored bats are known to roost on both bridges and culverts typically between 1-2 individuals per structure. In more detail, Natural Heritage data shows three gray bat and one tricolored bat bridge roost locations in McDowell County. Within the action areas of these damaged crossing structures, given the degraded and reduced roosting habitat available, and based on existing WNC data, it is estimated that one individual per species could be present within each structure at each crossing location.

Trees

Gray bats are not considered “tree-roosting” species. While individuals have been observed utilizing trees in rare occasions, they are generally considered a cave/structure-specific roosting species; therefore, no gray bats are expected to be roosting in trees within the action areas. Northern long-eared bats and tricolored bats roost in trees during the warmer months. Buncombe County projects 110, 132, 135, 139, 147, 175, 200, and 307, Madison County projects 042, McDowell projects 023, 044, 079, 083, 119, 345, and 428, Mitchell County projects 123, 152, and 154, and Yancey County projects 100 and 156 may involve tree clearing, but no project anticipates clearing more than 0.1 acres. Given the minimal amount of riparian vegetation and trees remaining within the action areas, it is unlikely that high number of bats would be utilizing the small amount of available habitat. Based on that rationale, 1 individual per species (of northern long-eared bat or tricolored bat) could be present in trees within the action area per crossing structure location.

5. Effects of the Action

Under section 7(a)(2) of the ESA, "effects of the action" refers to the consequences, both direct and indirect, of an action on the species or critical habitat. The effects of the proposed action are added to the environmental baseline to determine the future baseline, which serves as the basis for the determination in this Opinion. Should the effects of the Federal action result in a situation that would jeopardize the continued existence of the species, we may propose reasonable and prudent alternatives that the Federal agency can take to avoid a violation of section 7(a)(2).

5.1 Gray Bat, Northern Long-eared Bat, and Tricolored Bat

5.1.1 Proximity of the Action, Nature of the Effect, and Disturbance Duration for Bats

Based on the description of the action and the species' biology, stressors to gray bat, northern long-eared bat, and tricolored bat have been identified and are shared below. The proximity of these actions will be within the entire action area of each project, including the structures, waterways, riparian zone, and any existing forested areas. Duration of disturbance is expected primarily during the construction phase of project work.

5.1.2 Effects Analysis for Bats

Replacement structures: Due to the constraints associated with the TS Helene response, such as the high volume of projects and timeline unknowns, the exact designs of replacement crossing structures are not known at the time of this document. However, according to information provided by NCDOT, most replacement bridge structures are expected to be either cored slab or box beam bridges. Such precast concrete bridges may provide suitable bat roosting habitat depending on factors such as spacing between beams/girders, arrangement above any bents, and other design elements that could result in potential roosting crevices. Generally, concrete is a favorable material for roosting due to its thermal stability.

Direct Impacts – Direct effects are caused by the action and occur at the same time and place (50 CFR 402.02).

Structure Work

The demolition of remaining portions of structures, if conducted while bats are present, could result in causing bats to flush, which would expose them to risk of predation and would cause increased energy expenditure and create the need for bats to find alternative roost locations. It could also result in physical wounding or death. High-decibel percussive noises associated with demolition or construction may cause nearby roosting bats to flush, exposing them to harm and increased energy expenditure. Additionally, while adults may be able to flush, any non-volant pups present would be left behind with mortality as the likely outcome. In summary, these activities, should they occur while bats are present, are likely to adversely affect gray bat, northern long-eared bat, and tricolored bat in the form of harm.

Tree Removal

The removal of suitable roost trees, if conducted while northern long-eared bats, or tricolored bats are present, could result in causing bats to flush, which would expose them to risk of predation, would cause increased energy expenditure, and create the need for bats to find alternative roost locations. It could also result in physical wounding or death. Given the presence of alternative forested habitat near the action areas, bats could likely find trees for roosting. Harm would be expected in the increased exposure to predation from flushing and from the potential for wounding or killing when trees are felled.

Additionally, while adults may be able to flush, any non-volant pups would be left behind and would likely perish. In summary, these activities, should they occur while bats are present, are likely to adversely affect northern long-eared bat and tricolored bat in the form of harm.

Indirect Impacts – Indirect effects are defined as those that are caused by the proposed action and are later in time but are still reasonably certain to occur (50 CFR 402.02).

If bats were utilizing structures or trees (when considering northern long-eared bat and tricolored bat) within the action areas as roost sites prior to demolition/clearing/construction and return to those roost sites to find the habitat gone or altered, the bats may then have to expend extra energy in finding alternative roosting areas. While this could occur, it is considered unlikely to result in adverse effects given that replacement structures are expected to offer suitable roosting features, and alternative forested habitat is available near the action areas.

Operational Effects

Because these projects are limited to the replacement of damaged or destroyed crossing structures and their approaches, which will not result in changes to traffic volumes, any operational effects above the existing baseline conditions are not expected to occur; or, if they do occur, are expected to be minimal.

5.2 Cumulative Effects

Cumulative effects are defined as "those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation" (50 CFR 402.02). Future federal actions unrelated to the proposed action are not considered because they require separate consultation pursuant to Section 7 of the ESA.

These structure replacements are not expected to induce land development or substantially change the function of the roadways. Any potential effects are anticipated to be localized and consistent with baseline land use patterns. Many private landowners and local governments are recovering from TS Helene and rebuilding homes/businesses and infrastructure. Therefore, there will likely be increased construction in WNC Counties for an undefined period of time. Some of this work will be conducted during seasons when bats are active on the landscape, potentially increasing exposure to construction-related stressors. However, other effects from these private actions cannot be determined at this time.

6. Conclusion and Jeopardy Determination

After reviewing the current status of gray bat, northern long-eared bat, and tricolored bat, the environmental baselines for the action areas, the effects analyses and cumulative effects, the Service's biological and conference opinions are shared below.

6.1 Gray Bat, Northern Long-eared Bat, and Tricolored Bat

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat as endangered under the ESA. As a result, NCDOT requested a conference for the tricolored bat as the projects may be on-going after the effective date of any final listing rule, if one is published. It is the Service's biological and conference opinion that the proposed actions are not likely to jeopardize the continued existence of gray bat, northern long-eared bat, or tricolored bat. This opinion is based on the following factors: Effects of the actions occur as a result the planned replacement of Buncombe County crossing structures 110, 132, 135, 139, 147, 175, 200, 307, and 428; Madison County crossing structure 042; McDowell County crossing structures 023, 044, 079, 083, 119, and 345; Mitchell County crossing structures 123, 152, and 154; and Yancey County crossing structures 100 and 156. These action areas comprise only a small amount of active season habitat within the overall ranges of these species. No changes in the long-term viability of gray bat, northern long-eared bat, or tricolored bat are expected because, given the low numbers of each species which could be expected to occur at each crossing structure location (that is, an estimate of 1 individual per species per structure and an estimate of 1 northern long-eared bat and 1 tricolored bat per forested area within each action area), and the occurrence range-wide of each species – gray bat in 14 states, northern long-eared bat in 37 states, and tricolored bat in 39 states as well as in portions of other North and Central American countries – only a minuscule percentage of those overall populations may be affected. Crossing structure construction activities are likely to negatively affect gray bat, northern long-eared bat, and tricolored bat within the action areas, but the incorporated conservation measures are expected to reduce impacts.

7. Incidental Take Statement

Section 9 of the Endangered Species ESA and Federal regulations pursuant to section 4(d) of the Endangered Species Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take "*means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct*" (16 U.S.C §1532). Harm is further defined by the Service as "*an act which actually kills or injures wildlife. Such act may include significant habitat*

modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 CFR 17.3). Incidental taking “means any taking otherwise prohibited, if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity” (50 CFR 17.3). Harass is defined by the Service as “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering” (50 CFR 17.3). Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered to be prohibited under the Endangered Species Act, provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

7.1 Amount of Take for Gray Bat, Northern Long-eared Bat, and Tricolored Bat

The Service anticipates incidental take of gray, northern long-eared, and tricolored bats may result from the demolition (if applicable) and construction of crossing structures 110, 132, 135, 139, 147, 175, 200, 307, and 428 (Buncombe County); 042 (Madison County); 023, 044, 079, 083, 119, and 345 (McDowell County); 123, 152, and 154 (Mitchell County); and 100 and 156 (Yancey County). Specifically, take of these species may occur as a result of flushing, wounding, or direct mortality during demolition activities (if applicable); or, for northern long-eared bat and tricolored bat, take may occur as a result of clearing suitable roost trees during times of year that these bats could be tree-roosting within the action area, which may similarly result in flushing, wounding, or direct mortality during clearing activities.

Incidental take of bats is difficult to measure or detect given that 1) the animals are small, cryptic, and generally difficult to observe, 2) finding dead or injured bats during or following project implementation is unlikely, and 3) some incidental take is in the form of non-lethal harm and not directly observable. Given this, the 1) maximum estimated tree clearing (for northern long-eared bat and tricolored bat only) and 2) number of structures replaced, are used as surrogate measures of take for this Opinion.

Additionally, as discussed in the Environmental Baseline, no more than one individual of gray bat or two individuals of northern long-eared bat or tricolored bat (given structure and tree roosting) are estimated to be present within the action areas of each crossing structure.

Therefore, the incidental take permitted by the Opinion would be exceeded if:

1. *Tree clearing amount exceeds 0.10 acre at a single structure location for the crossing structures listed at the beginning of section 7.2.
2. Any more than one structure is demolished/replaced per crossing structure, as listed at the beginning of section 7.2.

**For northern long-eared bat and tricolored bat only*

Exceedance of take as defined above will represent new information that was not considered in this Opinion and shall result in reinitiation of this consultation. The incidental take of gray bat, northern long-eared bat, and tricolored bat is expected to be in the form of harm, wounding, or death.

7.2 Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize take of gray bat, northern long-eared bat, and tricolored bat. These non-discretionary measures reduce the level of take associated with project activities and include only actions that occur within the action area.

1. NCDOT shall ensure that the contractor(s) understands and follows the measures listed in the “Conservation Measures”, “Reasonable and Prudent Measures,” and “Terms and Conditions” sections of this Opinion.
2. NCDOT shall minimize the area of disturbance within the action areas to only the area necessary for the safe and successful implementation of the proposed actions.
3. NCDOT shall monitor and document any take numbers and the surrogate measures of take and report those to the Service in a batched format.

7.3 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the Applicant must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting and/or monitoring requirements. When incidental take is anticipated, the terms and conditions must include provisions for monitoring project activities to determine the actual project effects on listed fish or wildlife species (50 CFR §402.14(i)(3)). These terms and conditions are nondiscretionary. If this conference opinion is adopted as a biological opinion following a listing or designation, these terms and conditions will be non-discretionary.

1. NCDOT shall adhere to all measures as listed in the Avoidance and Minimization and Conservation Measures section as summarized in this Opinion.
2. The NCDOT will immediately inform the Service if the amount or extent of incidental take in the incidental take statement is exceeded.
3. When incidental take is anticipated, the Terms and Conditions must include provisions for monitoring project activities to determine the actual project effects on listed fish or wildlife species (50 CFR §402.14(i)(3)). In order to monitor the impact of incidental take, the NDOT must report the action impacts on the species to the Service according to the following:
 - a. The NCDOT will submit a report each year not later than September 30 identifying, per individual project (via Service Log # and NCDOT identifiers), the following for the preceding calendar year ending December 31:
 - i. Acreage and dates of tree removal (if any), if LAA for bats (excepting gray bat).
 - ii. Dates of structure removal (if any), if LAA for bats.
 - iii. List of implemented AMMs and BMPs [as listed in Section 2.3].

8. Conservation Recommendations

Section 7(a)(1) of the Endangered Species ESA directs Federal agencies to use their authorities to further the purposes of the Endangered Species ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- **Eastern Hellbender:** Proximity to eastern hellbender occurrence records was noted for the following crossing structures: Buncombe County structures 132, 135, and 139, and Yancey County structure 298. Ahead of work at this location, coordinate with the NCWRC and the Service to survey for/relocate any hellbender that may be within the action area and vulnerable to impacts from project work.
- **State Species of Concern:** Proximity to aquatic species with North Carolina designations was noted for Buncombe County crossing structures 132, 135, 175, and 200, Madison County crossing structure 042, McDowell County crossing structure 044, and Mitchell County crossing structure 123. While these species are not currently afforded legal protection under the ESA, we recommend the most

protective sediment and erosion control measures possible be used in waters occupied by these species, and we encourage you to coordinate any relocation efforts of such species with the NCWRC.

- **Refueling and Materials Storage:** Refuel construction equipment outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater) and protected with secondary containment. Store hazardous materials, fuel, lubricating oils, or other chemicals outside the 100-year floodplain or at least 200 feet from all water bodies (whichever distance is greater).
- **Provide Terrestrial Wildlife Passage:** Where riparian corridors suitable for wildlife movement occur adjacent to a project, a spanning structure that also spans a portion of the floodplain and provides or maintains a riprap-free level path underneath for wildlife passage would provide a safer roadway and facilitate wildlife passage. A 10-foot strip may be ideal, though smaller widths can also be beneficial. Alternatively, a “wildlife path” can be constructed with a top-dressing of finer stone (such as smaller aggregate or on-site alluvial material) to fill riprap voids if full bank plating is required. If a multi-barrel culvert is used, the low flow barrel(s) should accommodate the entire stream width and the other barrel should have sills to the floodplain level and be back-filled to provide dry, riprap-free wildlife passage and well as periodic floodwater passage.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

9. Reinitiation Notice

This concludes formal consultation on the action(s) outlined in the consultation request dated December 12, 2024. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

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Section 106

Checklist

Cultural Resources Programmatic Agreement Screening Checklist for Section 106

Project TIP:

FA:

WBS: DF18313.2057035

Project Name: repair/replace Bridge 042

County: Madison

Project Description: Repair/replace Bridge 042 over Ivy Creek (River) on Bend of Ivy Road due to damages incurred by Hurricane Helene

Funding Source: anticipated federal reimbursement

Lead Federal Agency: FHWA/FEMA

Permits Anticipated: none anticipated

Instructions:

NCDOT Project Managers, Project Engineers, or the Division Environmental Staff shall complete the following checklist based upon knowledge of the project site and adjacent parcels. Webservices (<https://www.ncdcr.gov/about/history/division-historical-resources/gis-maps-and-data>) should be reviewed for NRHP Eligible or Listed Buildings, Districts, Objects, Sites, or Structures. Before checking “Unable to Determine”, efforts should be made to acquire any available information. If the answer to any question is “Yes” or “Unable to Determine”, the undertaking is subject to further historic preservation review by NCDOT Cultural Resources staff. If answers to all the questions are “No”, the undertaking will be considered to have *Little Potential to Cause Effects – Exempt Activities* and excluded from further historic preservation review, until differing information is discovered. Please reference “Appendix A *Exempt Activities Under Section 106*” of the Programmatic Agreement for Transportation Program in North Carolina prior to completion.

	Yes	No	Unable to Determine
A. Would this activity have the potential to cause effects on historic properties, assuming historic properties are present? See list in Appendix A.		X	
B. Is this project directly related to other actions with individually insignificant, but cumulatively significant environmental effects?		X	
C. Are you aware of any concerns raised by the owner of a historic property or public controversy for this undertaking?		X	
D. Locations of cemeteries have been found on the webservices? (https://www.ncdcr.gov/about/history/division-historical-resources/gis-maps-and-data)		X	

By my signature, I certify that I have completed a site visit or am familiar with the specifics of the project and to the best of my knowledge answers to the questions above are correct. I also understand that no further environmental analysis is required at this time, as all of the answers are “No”.

Christine Farrell

Christine Farrell

11/6/2024

Name (print)

Signature

Date

NEPA Document

Type I or II Categorical Exclusion Action Classification Form

STIP/Project No. Bridge 042, Div 13, Madison County

WBS/DF Element DF18313.2057035

Federal Project No. _____

A. Project Description:

The North Carolina Department of Transportation (NCDOT) intends to re-establish Bridge 042 over Ivy Creek (River) on Bend of Ivy Road in Madison County, North Carolina (Division 13). See vicinity map.

B. Description of Need and Purpose:

The Purpose of the project is to replace a structure damaged by floodwaters associated with Hurricane Helene which made landfall in Florida on September 26, 2024. The repair/replacement work is needed to restore essential traffic in Western North Carolina.

C. Categorical Exclusion Action Classification:

Type I(A) - Ground Disturbing Action

D. Proposed Improvements:

9. The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 U.S.C. 5121):

a) Emergency repairs under 23 U.S.C. 125; and

b) The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action:

i) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and

ii) Is commenced within a 2-year period beginning on the date of the declaration.

and/or

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

E. Special Project Information:

NCDOT conducted a desktop GIS analysis for potential natural and human environment features in early November 2024. The study area was defined as a 200-foot buffer around the bridge location. NCDOT is utilizing an Emergency Express Design-Build contracting process to expedite this process. The repair/replacement bridge work is anticipated to occur within the current NCDOT right-of-way (ROW). If additional ROW is required, or if the final design results in potential impacts outside of the study area, NCDOT will re-evaluate and document any additional effects. NCDOT is conducting

ongoing federal and state agency coordination to determine the most expedient processes for accomplishing NEPA compliance while adhering to emergency relief protocols.

NCDOT is providing comprehensive public outreach to our western NC communities in lieu of site-specific outreach. As site-specific information becomes available, NCDOT will use its various outreach platforms to inform the public.

A Direct and Indirect Screening Tool (DIST) was used to assess potential impacts to the local community, farm lands, and pedestrian accommodations (see project site). The bridge location is surrounded by protected farmland. Should any additional ROW or permanent easements be needed after design is available, the preliminary screening process should be initiated with Community Studies.

The NCDOT 106 PA checklist was completed for this project (see project site). The checklist determined the project is exempt from further Section 106 review in accordance with NCDOT's Section 106 PA. The PA also exempts the project from any further tribal coordination.

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was reviewed on November 1, 2024. USFWS lists the following species below as federally protected with potential to be found within the project study area as of this date:

Species Name	Scientific Name	ESA Status	Biological Conclusion	Habitat Present
Gray bat Tricolored bat	<i>Myotis griseescens</i> <i>Perimyotis subflavus</i>	Endangered Proposed Endangered	No Effect No Effect	No No

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)			
<p>Proposed improvement(s) that fit Type I Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix A) including 2, 3, 6, 7, 9, 12, 18, 21, 22 (ground disturbing), 23, 24, 25, 26, 27, 28, &/or 30; &/or Type II Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix B) answer the project impact threshold questions (below) and questions 8 – 31.</p> <ul style="list-style-type: none"> • <i>If any question 1-7 is checked “Yes” then NCDOT certification for FHWA approval is required.</i> • <i>If any question 1-31 is checked “Yes” then additional information will be required for those questions in Section G.</i> 			
<u>PROJECT IMPACT THRESHOLDS</u> (FHWA signature required if any of the questions 1-7 are marked “Yes”.)		Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>If any question 8-31 is checked “Yes” then additional information will be required for those questions in Section G.</p>			
<u>Other Considerations</u>		Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or is the project covered by a Programmatic Agreement under Section 7?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)? https://data-ncdenr.opendata.arcgis.com/datasets/surface-water-classifications/explore	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Does the project impact Waters of the United States in any of the designated mountain trout streams? https://data-ncdenr.opendata.arcgis.com/datasets/surface-water-classifications/explore	<input type="checkbox"/>	<input checked="" type="checkbox"/>

12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area? https://www.rivers.gov/carp/map	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGIP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
31	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F (ONLY for questions marked 'Yes'):

8. NCDOT and our federal partners, USACE and FHWA, completed consultation with USFWS in August 2024 to develop a Programmatic Section 7 Agreement for federally listed bat species in western NC (Divisions 9-14) after initiating the formal consultation process on 5/16/24. Per 50 CFR 402.12 issuance of a Programmatic Biological Opinion (PBO) was required on or before 09/30/24. Following recent and ongoing discussions with all parties, USFWS is expected to issue the PBO in February 2025. Once the PBO is issued, if Section 7 for this project has not been completed, it may need to be evaluated under the terms and conditions of the agreement.

25. This project is an emergency relief project due to Hurricane Helene impacts. Per 40 CFR § 93.126, it is exempt from the requirement to determine conformity because it does not involve substantial functional, locational or capacity changes (23 CFR 450.218(g)).

H. Project Commitments (attach as Green Sheet to CE Form):

NCDOT PROJECT COMMITMENTS

WBS/DF DF18313.2057035

Re-establishment of Bridge 042 over Ivy Creek (River) on Bend of Ivy Road
Madison County

Federal Aid Project No. **Federal Aid Number**

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

NCDOT and our federal partners, USACE and FHWA, completed consultation with USFWS in August 2024 to develop a Programmatic Section 7 Agreement for federally listed bat species in western NC (Divisions 9-14) after initiating the formal consultation process on 5/16/24. Per 50 CFR 402.12 issuance of a Programmatic Biological Opinion (PBO) was required on or before 09/30/24. Following recent and ongoing discussions with all parties, USFWS is expected to issue the PBO in February 2025. Once the PBO is issued, if Section 7 for this project has not been completed, it may need to be evaluated under the terms and conditions of the agreement.

Eastern Hellbender

The Eastern Hellbender was proposed for federal listing in December 2024. However, no restrictions will take effect until the proposal is finalized, which is expected in late 2025 or early 2026. Until then, proposed species do not receive protection under the Endangered Species Act (ESA), except that federal action agencies must ensure their actions do not jeopardize the species' existence. These agencies may also consult with the U.S. Fish and Wildlife Service (USFWS) to obtain a conference opinion, which will automatically convert to a biological opinion upon the final listing decision.

In the meantime, NCDOT construction or division environmental offices may voluntarily coordinate with the North Carolina Wildlife Resources Commission (NCWRC) to assess and potentially relocate hellbenders from project sites in western North Carolina. It is recommended that they contact the NCWRC liaison at least two months before construction begins.

David McHenry

Email: david.mchenry@ncwildlife.org

Phone: (828) 476-1966

Monarch Butterfly

The Monarch Butterfly was proposed for federal listing in December 2024. However, no restrictions will take effect until the proposal is finalized, which is expected in late 2025 or early 2026. Until then, proposed species do not receive protection under the Endangered Species Act (ESA), except that federal action agencies must ensure their actions do not jeopardize the species' existence. These agencies may also consult with the U.S. Fish and Wildlife Service (USFWS) to obtain a conference opinion, which will automatically convert to a biological opinion upon the final listing decision.

I. Categorical Exclusion Approval:

STIP/Project No. Bridge 042, Div 13, Madison County
WBS/DF Element DF18313.2057035
Federal Project No. _____

Prepared By:

1/7/2025

Date



Christine Farrell, NEPA Program Consultant
Environmental Policy Unit, NCDOT

Prepared For: NCDOT Division 13

Reviewed By:

2/10/2025

Date



Marissa Cox, Western Regional Team Lead
Environmental Policy Unit, NCDOT



Approved

- If NO grey boxes are checked in Section F (pages 2 and 3), NCDOT approves the Type I or Type II Categorical Exclusion.
- If ANY grey boxes are checked in Section F (pages 2 and 3), NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.
- If classified as Type III Categorical Exclusion.



Certified

2/10/2025

Date



John Jamison, Environmental Policy Unit Manager
North Carolina Department of Transportation

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

Date

for Yolonda K. Jordan, Division Administrator
Federal Highway Administration

Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VII of the NCDOT-FHWA CE Programmatic Agreement for more details).



Bridge Number	Division	County	Location Description	Latitude	Longitude
560042	13	Madison	SR 1576 (Bend of Ivy Rd) from 500ft south of Bridge #560042 to 900ft north of the Bridge.	35.794004	-82.613306