



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

August 11, 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 Permit and 401 Water Quality Certification** as the result of **Hurricane Helene** for the **Replacement of Bridge 245** over **Featherstone Creek** on SR 1528 (Locust Grove Road) in **Henderson County**, Division 14, WBS DF18314.2045335.

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: Restoration of Bridge 245 over Featherstone Creek.

Approvals Requested:

404 Nationwide Permit 3: Notification required due to

- Greater than 0.008 acre of impacts other than temporary dewatering in a Designated Trout Watershed.
- A biological conclusion of other than No Effect.

401 General Certification 8562 Certificate of Coverage required due to stream impacts > 150 lf.

FEMA is the lead federal agency for this project.

Brief Damage Summary and Current Temporary/ Emergency Structure:

The previous 17-foot long, single-span bridge was destroyed by the storm.

Three emergency / temporary pipes are currently serving SR 1528.

Proposed Replacement:

A new single-span, 33-foot-long bridge will replace the damaged bridge, in the same location as the previous bridge. An off-site detour will be used during construction.

Avoidance and Minimization:

- The new structure will be 16 feet longer than the previous structure, providing improved hydraulic connectivity.
- 2:1 fill slopes in as many areas as possible to stay out of the existing stream and avoid encroachment on the nearby driveway bridge.
- Rip rap / bank stabilization has been incorporated to minimize erosion in sites where vegetation will not be adequate.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

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

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Proposed Activities in Streams:

Impact Site	Permanent Fill	Permanent Bank Stabilization	Temporary Impacts	Impact Description
Site 1	--	98 lf 0.02 ac	10 lf < 0.01 ac	Featherstone creek runs parallel to Locust Grove Road and is located at the toe of the roadway slope at this location. Due to the need to correct the geometrics of Locust Grove Road to modern design standards, 98 lf of Featherstone Creek will be relocated away from the road. NCDOT is proposing mitigation for this change at a 1:1 ratio due to the creation of a more typical channel profile and increased long-term separation between the stream and the roadway. This will allow the stream to experience a typical flood event and not compromise the integrity of the roadway. Native material will be used at the bottom of the relocated channel.
Site 2	--	--	5 < 0.01 ac	5 lf of temporary impact is required to replace an adjacent 24" corrugated metal pipe with a 36" reinforced concrete pipe which will be buried 20%.
Site 3	62 ft < 0.01 ac	--	10 lf < 0.01 ac	The previous bridge was narrow, and water was touching both abutments. The new structure will be wider and allow for a natural stream width and a floodplain bench. There will be 62 lf of stream bank stabilization to stabilize the new streambanks and protect the new bridge. 10 lf of temporary impact is required for dewatering operations.
Total	62 ft < 0.01 ac	98 lf 0.02 ac	25 < .01 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 Before:



Bridge 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
Northern long-eared bat	Yes	n/a	May Affect, Likely to Adversely Affect	Attached
Tricolored bat	Yes	n/a	May Affect, Likely to Adversely Affect	Attached
Small whorled pogonia	No	5/14/2025	No Effect	n/a
White Irisette	No	5/14/2025	No Effect	n/a
Bog Turtle ²	n/a	n/a	n/a	n/a
Eastern hellbender (Proposed) ³	n/a	n/a	n/a	n/a
Monarch butterfly (Proposed) ³	n/a	n/a	n/a	n/a
1 IPaC – Information for Planning and Consultation (US Fish and Wildlife Service) 2 Similarity of Appearance (Threatened); A species that is threatened due to similarity of appearance with another listed species and is listed for its protection. 3 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	No Surveys Required	
Archaeology	No Surveys Required	
Tribal Coordination	Tribe	Response
Tribal Coordination Letters were sent to the following Tribes on February 11, 2025:	Catawba Indian Nation	Response received
	Eastern Band of Cherokee Indians	No response received
	Muscogee (Creek) Nation	Response received
	Cherokee Nation	No response received
	United Keetoowah Band of Cherokee Indians in Oklahoma	No response received

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

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.

Principal Purpose Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.

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.

Disclosure Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can

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.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see *sample drawings and/or instructions*) and be submitted to the district engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED 08/11/2026	4. DATE APPLICATION COMPLETE
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First – Robert Middle – Last – Crowther Company – NCDOT Company Title – E-mail Address – recrowther@ncdot.gov	8. AUTHORIZED AGENT'S NAME AND TITLE (<i>agent is not required</i>) First – Middle – Last – Company – E-mail Address –
6. APPLICANT'S ADDRESS Address – 1598 Mail Service Center City – Raleigh State – NC ZIP – 27699 Country – US	9. AGENT'S ADDRESS Address – City – State – ZIP – Country –
7. APPLICANT'S PHONE NOS. with AREA CODE a. Business b. c. Fax +19197076112	10. AGENT'S PHONE NOS. with AREA CODE a. 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 245 / Featherstone Creek / Locust Grove Road (SR 1528) / Henderson / Div 14 / DF18314.2045335

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY13. NAME OF WATERBODY, IF KNOWN (*if applicable*)14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)

Latitude: 35.393944 °N

Longitude: -82.44225 °W

Address: 2279 Locust Grove Rd

City: Hendersonville State: NC Zip: 28792

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

Section –

Township –

Range –

County – Henderson County

Project Area – 2 Acres

State Tax Parcel ID –

17. DIRECTIONS TO THE SITE

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

NWP 3 Maintenance

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

NCDOT proposes the Replacement of Bridge 245 over Featherstone Creek on Locust Grove Road (SR 1528) in Henderson County, Division 14, WBS DF18314.2045335, under the Expedited Processing Provisions for Hurricane Helene Response.

State Department of Transportation/ Bridge Replacement Project.

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

- The new structure will be 16 feet longer than the previous structure, providing improved hydraulic connectivity.
- 2:1 fill slopes in as many areas as possible to stay out of the existing stream and avoid encroachment on the nearby driveway bridge.
- Rip rap / bank stabilization has been incorporated to minimize erosion in sites where vegetation will not be adequate.

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

To restore a transportation facility (Bridge) damaged or destroyed by Hurricane Helene.

22. QUANTITY OF WETLANDS, STREAMS, OR OTHER TYPES OF WATERS DIRECTLY AFFECTED BY PROPOSED NATIONWIDE PERMIT ACTIVITY (see instructions) See Appendix B
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.
25. 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)
26. 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. NCDOT is proposing mitigation for the proposed Site 1 channel change at a 1:1 ratio due to the creation of a more typical channel profile and increased long-term separation between the stream and the roadway. This will allow the stream to experience a typical flood event and not compromise the integrity of the roadway.
27. Is any portion of the nationwide permit activity already complete? Yes No If Yes, describe the completed work:
28. 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, Tricolored bat, Monarch butterfly, Small whorled pogonia, Northern Long-Eared Bat, White irisette ADDITIONAL AFFECTED SPECIES: Bog Turtle: SAT See included USFWS Consultation.
29. 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) See included Section 106 documentation.
30. 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":
31. 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:
32. 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)

33. 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.

Robert Crowther

08/11/2026

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 disguises 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>
Featherstone Creek	North Carolina	RIVERIN E	R2- RIVERINE, LOWER PERENNIAL	RIVERINE	Featherstone Creek	Linear	680	FOOT	DELIN.CONC	35.393944	-82.44225
SA	North Carolina	RIVERIN E	R2- RIVERINE, LOWER PERENNIAL	RIVERINE	Featherstone Creek	Linear	60	FOOT	DELIN.CONC	35.393944	-82.44225

Appendix C. Impact Inventory:

<i>Water Name</i>	<i>Impact Name</i>	<i>Activity</i>	<i>Type of Material Being Discharged</i>	<i>Resource Type</i>	<i>Permanent Loss (Y/N)</i>	<i>Impact Duration</i>	<i>Amount Type</i>	<i>Proposed Length</i>	<i>Proposed Width</i>	<i>Proposed Amount</i>	<i>Amount Units</i>
Featherstone Creek	Site Three Stream Re-establishment	Discharge of fill material	Rock	River/Stream	No	Temporary	Fill Area	10	1	10	Square Feet
Featherstone Creek	Site Three Stream Re-establishment	Discharge of fill material	Rock	River/Stream	No	Permanent	Fill Area	62	1	62	Square Feet
SA	Site Two Pipe Installation	Discharge of fill material	Pipe	River/Stream	No	Temporary	Fill Area	5	1	5	Square Feet
Featherstone Creek	Site One Channel Change	Discharge of fill material	Rock	River/Stream	No	Temporary	Fill Area	10	1	10	Square Feet
Featherstone Creek	Site One Channel Change	Discharge of fill material	Rock	River/Stream	Yes	Permanent	Fill Area	98	9	882	Square Feet

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.

Featherstone creek runs parallel to Locust Grove Road and is located at the toe of the roadway slope at this location. Due to the need to correct the geometrics of Locust Grove Road to modern design standards, 98 lf of Featherstone Creek will be relocated away from the road.

5 lf of temporary impact is required to replace an adjacent 24" corrugated metal pipe with a 36" reinforced concrete pipe which will be buried 20%.

There will be 62 lf of stream bank stabilization to stabilize the new streambanks and protect the new bridge.

Additional temporary impacts will be the result of dewatering operations.

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	2025-02-02	HAL No Survey Required	NCDOT	Henderson 245 2025-02-05 HAL No Survey Required.pdf
Historic Properties Cultural Resources Information	2025-02-10	No Archaeological Survey Required Form	NCDOT	Henderson 245 2025-02-10 No Archaeological Survey Required Form.pdf
Historic Properties Cultural Resources Information	2025-02-11	Tribal Coordination	NCDOT	Henderson 245 2025-02-11 Tribal Coordination Letter Distribution.pdf
Historic Properties Cultural Resources Information	2025-02-13	Muscogee Creek Nation Response	NCDOT	Henderson 245 2025-02-13 Muscogee Creek Nation Response.pdf
Historic Properties Cultural Resources Information	2025-02-25	Catawba Indian Nation Response	NCDOT	Henderson 245 2025-02-25 Catawba Indian Nation Response.pdf
Threatened Endangered Species Report	2026-08-11	Updated USFWS ESA Consultation	NCDOT	Henderson 245 2025-05-13 and 2026-07-14 USFWS Concurrence.pdf
Project Plans	2026-08-11	Permit Impact Drawings	NCDOT	Henderson 245 2026-07-01 Permit Drawings.pdf
Mitigation Plan	2026-08-11	NCDMS Acceptance Letter	NCDOT	Henderson 245 2026-08-05 DMS Mitigation Acceptance.pdf
Other Information	2026-08-11	Application Cover Letter / Impact Descriptions	NCDOT	Henderson 245 2026-08-11 Application Cover Letter.pdf

U.S. Army Corps of Engineers (USACE)

PERMIT INFORMATION SHEET

PERMIT FORM TYPE

ENG 6082

DATE RECEIVED

08/11/2026

TYPE OF PERMIT YOU'RE REQUESTING

Standard

Letter Of Permission

General Permit

APPLICABLE STATUTORY AUTHORITY

Section 404 Clean Water Act

Section 10 Rivers and Harbors Act

Section 103 of the Marine Protection, Research, and Sanctuaries Act

DO YOU PROPOSE COMPENSATORY MITIGATIONS?

Yes

COASTAL DISTRICT

WOULD THE PROJECT OCCUR IN THE TERRITORIAL SEAS OR OCEAN WATERS?

No

DESCRIBE THE ACTIVITY'S RELATIONSHIP TO THE BASELINE FROM WHICH THE TERRITORIAL SEA IS MEASURED

SECTION 408 USACE CIVIL WORKS PROJECTS

WILL THE PROPOSED ACTIVITY REQUIRES PERMISSION FROM THE USACE 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?

Yes

No

I'm not sure

IF YES, HAVE YOU SUBMITTED A WRITTEN REQUEST FOR SECTION 408 PERMISSION FROM THE USACE DISTRICT HAVING JURISDICTION OVER THAT PROJECT?

Yes

No

GENERAL PERMIT INFORMATION

WILL THE PROPOSED ACTIVITY RESULT IN A LOSS TO WETLANDS OR WATERS THAT EXCEEDS NATIONAL OR DISTRICT THRESHOLDS?

Yes

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: NC Division of Water Resources (DWR)	PARTNER ID:	NAME AND CODE: Form Name: NATIONWIDE/GENERAL/INDIVIDUAL PERMIT - DWR 401 Application Form NC Division of Water Resources Application Information 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 (NWP), 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.

Projects that fall within the North Carolina Division of Coastal Management (NCDQM) review area, will need to coordinate their application with NCDQM directly. To learn more, visit the [NCDQM website](<https://www.deq.nc.gov/about/divisions/division-coastal-management>).

USACE/NCDWR Joint Application Form for Nationwide Permits, Regional General Permits, and Individual Permits (along with corresponding Water Quality Certifications)

****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>)

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 #
 - Not Applicable (Question not presented)
- 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
- 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/Agency-Coordination/Trout.aspx)
 - Yes
- If yes, attach a copy of existing correspondence from the Wildlife Resource Commission Office.
 - Henderson 245 03-25-25 NCWRC Comments.pdf File(s) Uploaded

WATERS DETAILS -

- Name of nearest waterbody? [Surface Water Lookup](https://experience.arcgis.com/experience/7073e9122ab74588b8c48ded34c3df55/)
 - Featherstone 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.)

Note: 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
- 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.

NOTE: Questions only appear in this section when 'Will project occur in an area subject to state riparian buffer regulations?' is answered Yes.

- Does the project comply with the stormwater management requirements of the applicable buffer rules?
 - Not Applicable (Question not presented)
- Please explain why the project does not comply.
 - Not Applicable (Question not presented)

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.
 - Henderson 245 2025-08-14 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

- Please explain.

- Not Applicable (Question not presented)

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.

- Repair of bridge damaged by Hurricane Helene.

****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 March 16, 2026



*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 |

*** If this is a GP reissuance/renewal please reference the date of the plans and PCN that were originally verified.**

New Project - Please check the new project type if you are trying to submit a new project that needs an official approval decision.

Pre-Application Submittal – Please check the pre-application submittal if you just want feedback on your submittal and do not have the expectation that your submittal will be considered a complete application requiring a formal decision.

Modification/New Project With An Existing ID - Please check this box if you are submitting for a new phase of an existing project, a modification to an existing project or for any additional impacts to an existing project for an official approval decision.

More Information Response - Please check this type if you are responding to a request for information from staff and you have an ID# and version for this response.

Other Agency Comments - Please check this if you are submitting comments on an existing project.

Re-issuance/Renewal Request – Please check this if you are submitting for a re-issuance/renewal prior to expiration date for the corresponding 401/404. If submitting after the expiration date or if modification needed use Modification/New Project with Existing ID option.

Submittal Type: *

401 Application - Certificate of Coverage

Is buffer approval also required? *

☐ Yes ☒ No

Project Contact Information

Name:

Robert Crowther

Who is submitting the information?

Email Address: *

recrowther@ncdot.gov

Project Information

Project Name: *

NCDOT / Helene Bridge 245 / Featherstone Creek / Locust Grove Road (SR 1528) / Henderson / Div 14 / DF18314.2045335

Is this a public transportation project? *

☒ Yes ☐ No

Is this a DOT project? *

☒ Yes ☐ No

TIP#:

WBS#:

DF18314.2045335

(Applies to DOT projects only)

Project Status

If you selected "Re-Issuance/Renewal Request" or "Modification/New Project with Existing ID" for your project type at the top of this form, please enter the current status of your project.

☒ Pre-let ☐ Under Construction
☐ Utility Relocation Underway ☐ In-Field Adjustment

Only choose "In-Field Adjustment" if directed to do so by 401 staff

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

☒ 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 or S.L. 2023-134 (earmark)? *

☐ ARPA ☐ S.L. 2023-134 (earmark) ☒ No

Is this application being filed jointly with another party involved with this project? *

☐ Yes ☒ No

County (ies) *

Henderson

Please upload all files that need to be submitted.

[Click the upload button or drag and drop files here to attach document](#)

Henderson 245 2025-08-14 CE.pdf	157.44KB
Henderson 245 2026-07-01 Permit Drawings.pdf	2.19MB
Henderson 245 2026-08-05 DMS Mitigation Acceptance.pdf	269.99KB
Generated_Crowther_47955_55728_0_Appx_B_Aquatic_Resources.pdf	50.24KB
Generated_Crowther_47955_55728_0_Appx_C_Impacts.pdf	70.6KB
Generated_Crowther_47955_55728_0_Appx_D1_MB_ILF.pdf	46.25KB
Generated_Crowther_47955_55728_0_Appx_H_Supporting_Files.pdf	52.12KB
Generated_Crowther_47955_55728_0_ENG_6082_PCN.pdf	544.99KB
Generated_Crowther_47955_55728_0_NCDWR 401_JPA_Report.pdf	91.46KB
Generated_Crowther_47955_55728_0_Permit_Additional_Info.pdf	215.79KB
Henderson 245 03-25-25 NCWRC Comments.pdf	156.94KB
Henderson 245 2025-02-05 HAL No Survey Required.pdf	397.03KB
Henderson 245 2025-02-10 No Archaeological Survey Required Form.pdf	2.94MB
Henderson 245 2026-08-11 Application Cover Letter.pdf	1.15MB
Henderson 245 2025-02-11 Tribal Coordination Letter Distribution.pdf	5.05MB
Henderson 245 2025-02-13 Muscogee Creek Nation Response.pdf	1.03MB
Henderson 245 2025-02-25 Catawba Indian Nation Response.pdf	405.43KB
Henderson 245 2025-05-13 and 2026-07-14 USFWS Concurrence.pdf	842.77KB

[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: *



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: DF18314.2045335 TIP/Proj No: DF18314.2045335 County(ies): Henderson Page 1 of 2

General Project Information

WBS Element:		DF18314.2045335	TIP Number:	DF18314.2045335	Project Type:	Bridge Replacement	Date:	7/1/2026
NCDOT Contact:		Zach Shuler			Contractor / Designer:		Trent Cormier	
	Address:	345 Toot Hollow Road Bryson City, NC 28713				Address:	324 Blackwell St Suite 1200 Durham, NC 27701	
	Phone:	(828) 488-0922		Phone:		(919)-414-4410		
	Email:	ztshuler@ncdot.gov		Email:		trent.cormier@threeoaksengineering.com		
City/Town:		Hendersonville			County(ies):	Henderson		
River Basin(s):		French Broad			CAMA County?	No		
Wetlands within Project Limits?		No						

Project Description

Project Length (lin. miles or feet):	0.048 mi	Surrounding Land Use:	Rural, mountainous, with some residential					
	Proposed Project				Existing Site			
Project Built-Upon Area (ac.)	0.2	ac.	0.1				ac.	
Typical Cross Section Description:	Two 10' asphalt lanes with 3' paved shoulders				Two 10' lanes with 3' gravel shoulders			
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	450	Year:	2026	Existing:	450	Year:	2026

General Project Narrative:
(Description of Minimization of Water
Quality Impacts)

NCDOT Division 13 proposed to replace Bridge 440245 on SR 1528 (Locust Grove Rd.) over a jurisdictional stream (Featherstone Creek) in Henderson County, North Carolina. The existing roadway and structure were damaged by Hurricane Helene. During construction, minimization measures will be used, such as 2:1 fill slopes in many areas to stay out of the existing stream and not encroach on the existing driveway bridge. The slopes on the proposed ditch were held to 2:1 in order to completely avoid the Dam. A pipe system was added that connects to the proposed ditch in order to avoid a utility pole relocation that would have occurred very close to the existing stream bank as well. Rip rap outlet pads are constructed at all pipe outlets to minimize erosion.

At the beginning of the project, there was no way to avoid stream impacts while keeping the existing stream banks stable. In order to cause the least amount of long term impacts to the environment, a channel change was made to help retain the channel width and structure as much as possible while creating a stable roadway embankment.

For the main crossing, there are currently 3 @ 48" corrugated metal pipes that are filled over with gravel in place of the bridge that was washed out from Hurricane Helene. During construction, the gravel and pipes will be removed. There will be stream re-establishment along the vertical abutments and banks in order to minimize any bank erosion and to stabilize the banks from the hurricane damage. The stream re-establishment will be keyed in, and the bottom of the channel will be returned to its natural material. Vertical abutments will also be constructed so the bridge will stay out of the stream to the greatest extent.



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 3.02; Released April 23, 2024)

WBS Element: DF18314.2045335 TIP/Proj No.: DF18314.2045335 County(ies): Henderson Page 2 of 2

General Project Information

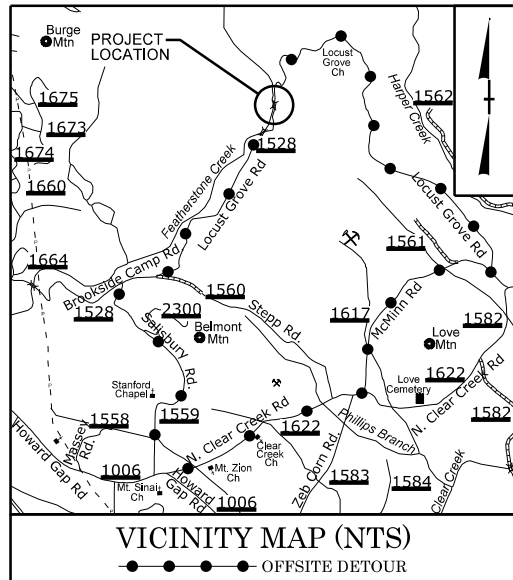
Waterbody Information

Surface Water Body (1):	Featherstone Creek		NCDWR Stream Index No.:	6-55-12	
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:	N/A			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)					
Surface Water Body (2):	UT Featherstone Creek		NCDWR Stream Index No.:	6-55-12	
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:	N/A			Buffer Rules in Effect:	N/A
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(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)					

CONTRACT: DN01095 TIP PROJECT: DF18314.2045335

CONTRACT: DN01095 TIP PROJECT: DF18314.2045335

See Sheet 1A For Index of Sheets



RIGHT OF WAY PLAN SET SUBMITTAL

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

HENDERSON COUNTY

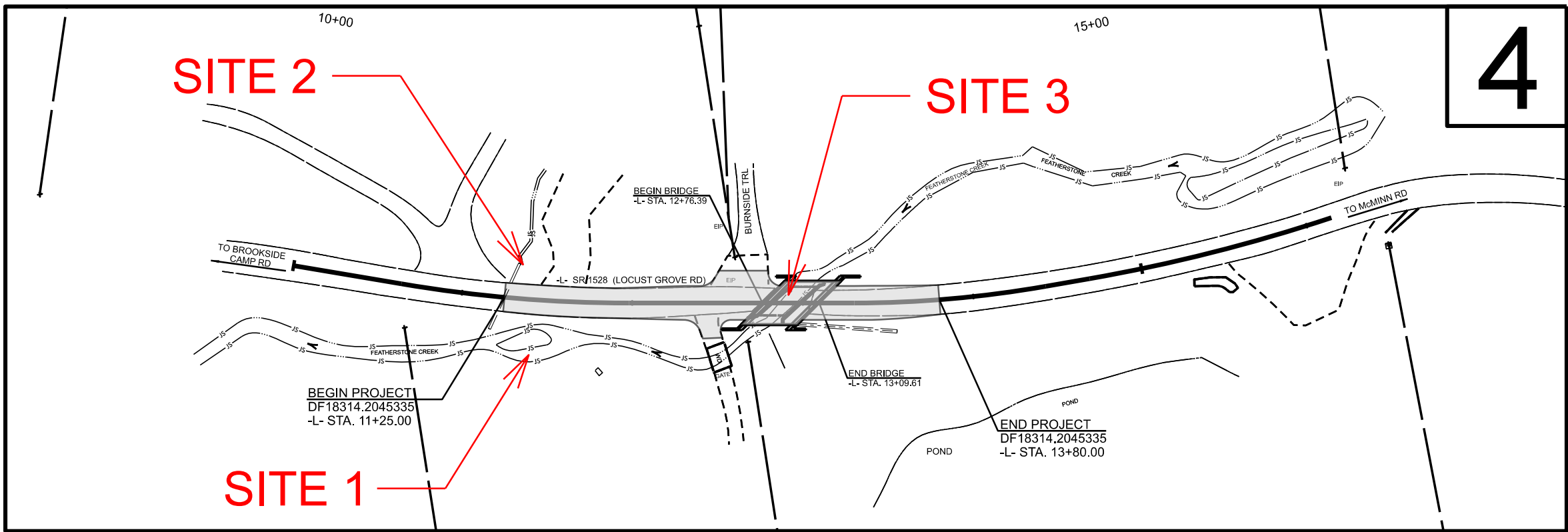
LOCATION: *REPLACEMENT OF BRIDGE NO. 440245 ON SR 1528
(LOCUST GROVE RD) OVER FEATHERSTONE CREEK*

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

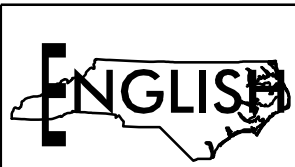


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DF18314.2045335	11	
STATE PROJ. NO.		F.A. PROJ. NO.	DESCRIPTION
DF18314.2045335			PE
DF18314.2045335			ROW / UTIL.
DF18314.2045335			CONST.

PERMIT DRAWING
SHEET 1 OF 5



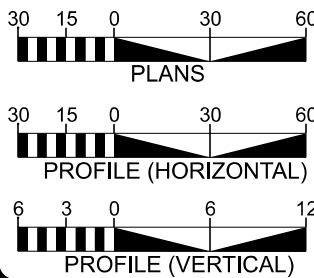
4



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

GRAPHIC SCALES



DESIGN DATA

ADT (PER RFP) = 450
V = 35 MPH

FUNC CLASS = LOCAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT DF18314.2045335 = 0.042 MILES
LENGTH OF STRUCTURE TIP PROJECT DF18314.2045335 = 0.006 MILES
TOTAL LENGTH OF TIP PROJECT DF18314.2045335 = 0.048 MILES

PLANS PREPARED BY:

VOLKERT
5430 Wade Park Blvd., Suite 410
Raleigh, NC 27606 Tel. 919-484-0344
NC License No. F-0765

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

EEDB

LETTING DATE:

EEDB

PLANS PREPARED FOR:

DIVISION OF HIGHWAYS
DIVISION 14
345 TOOT HOLLOW RD.
BRYSON CITY, NC 28713

CHRISTOPHER H. LEE, PE
PROJECT ENGINEER

W. CRAIG PARKER, PE
PROJECT DESIGN ENGINEER

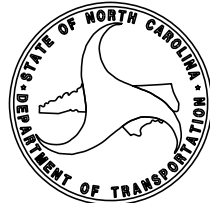
ZACH SHULER, PE
NCDOT CONTACT
DIVISION 14 PROJECT MANAGER

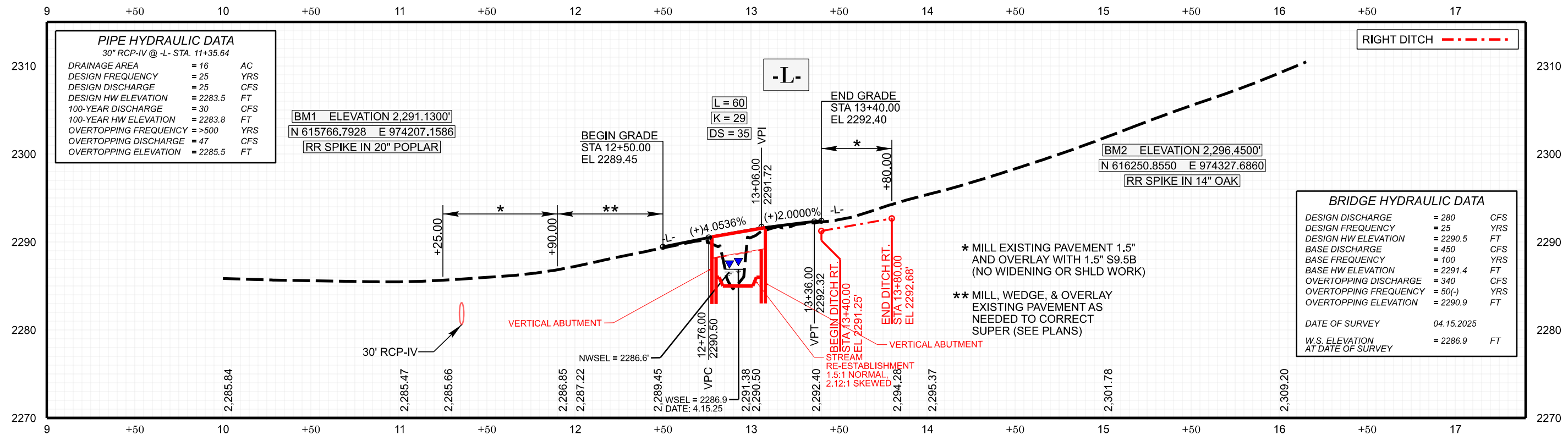
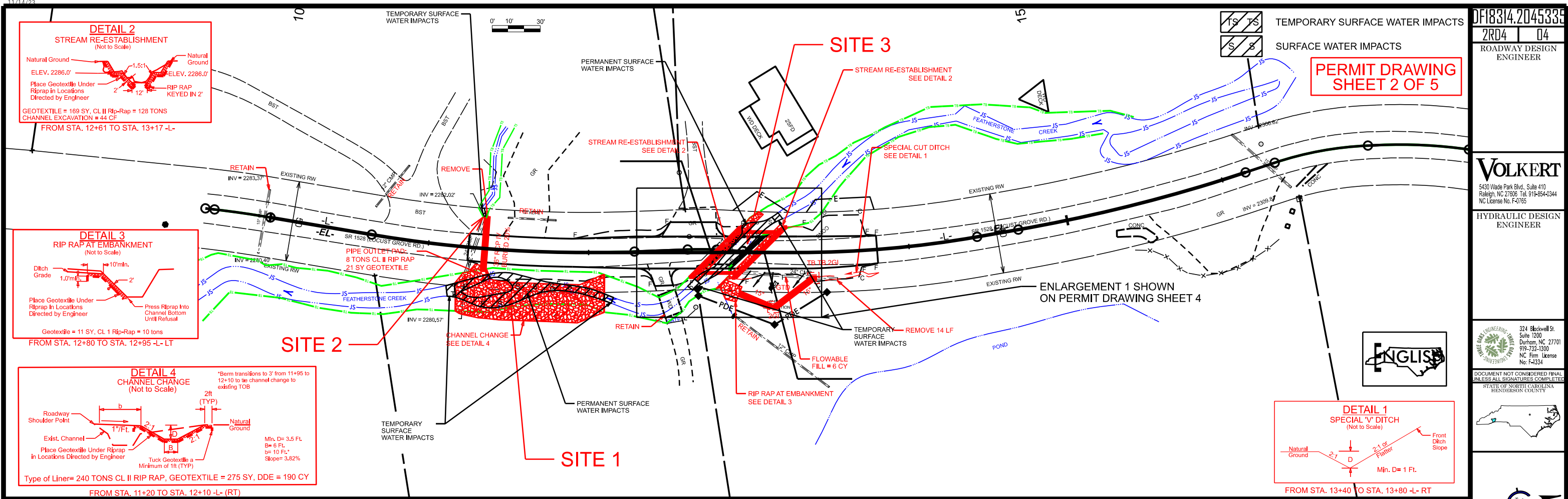
HYDRAULICS ENGINEER

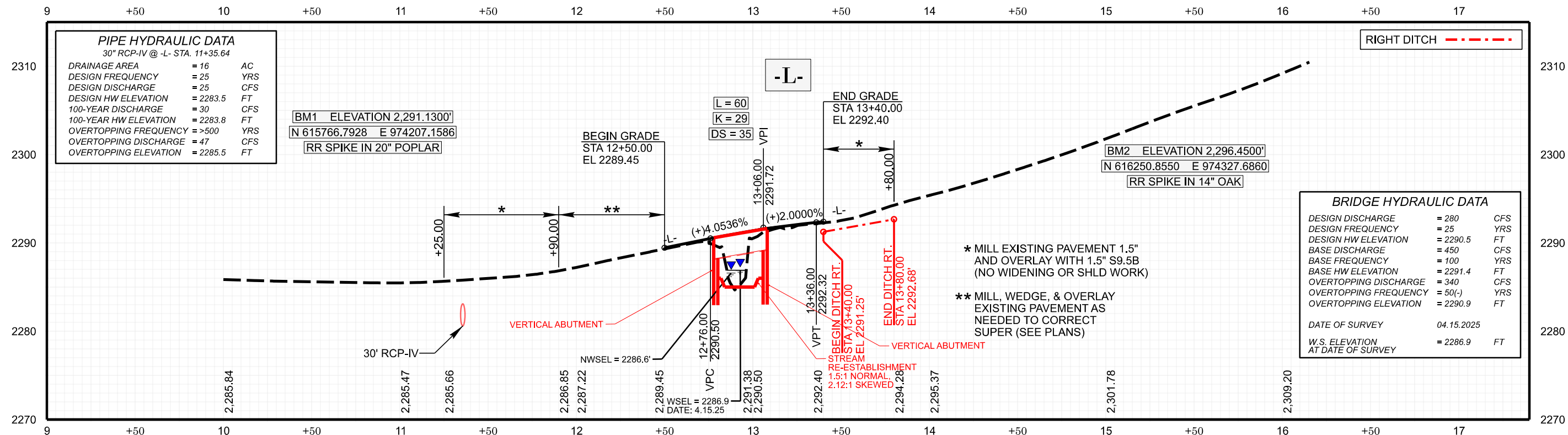
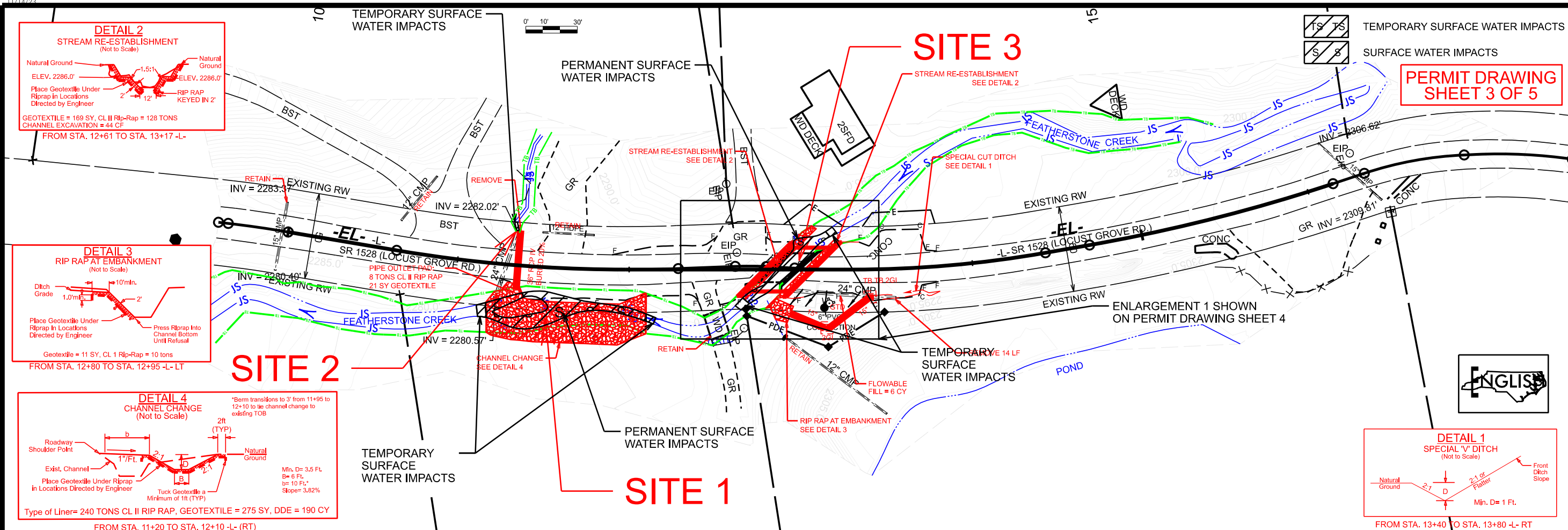
324 Blackwell St., Suite 1200
Durham, NC 27701
919-732-1300
NC Firm License No. F-1334

SIGNATURE: _____
ROADWAY DESIGN ENGINEER

SIGNATURE: _____
P.E.







DF18314.2045335

2RD4 04
ROADWAY DESIGN
ENGINEER

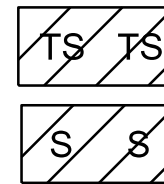
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HENDERSON COUNTYPRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTIONINCOMPLETE PLANS
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PERMIT DRAWING
SHEET 4 OF 5

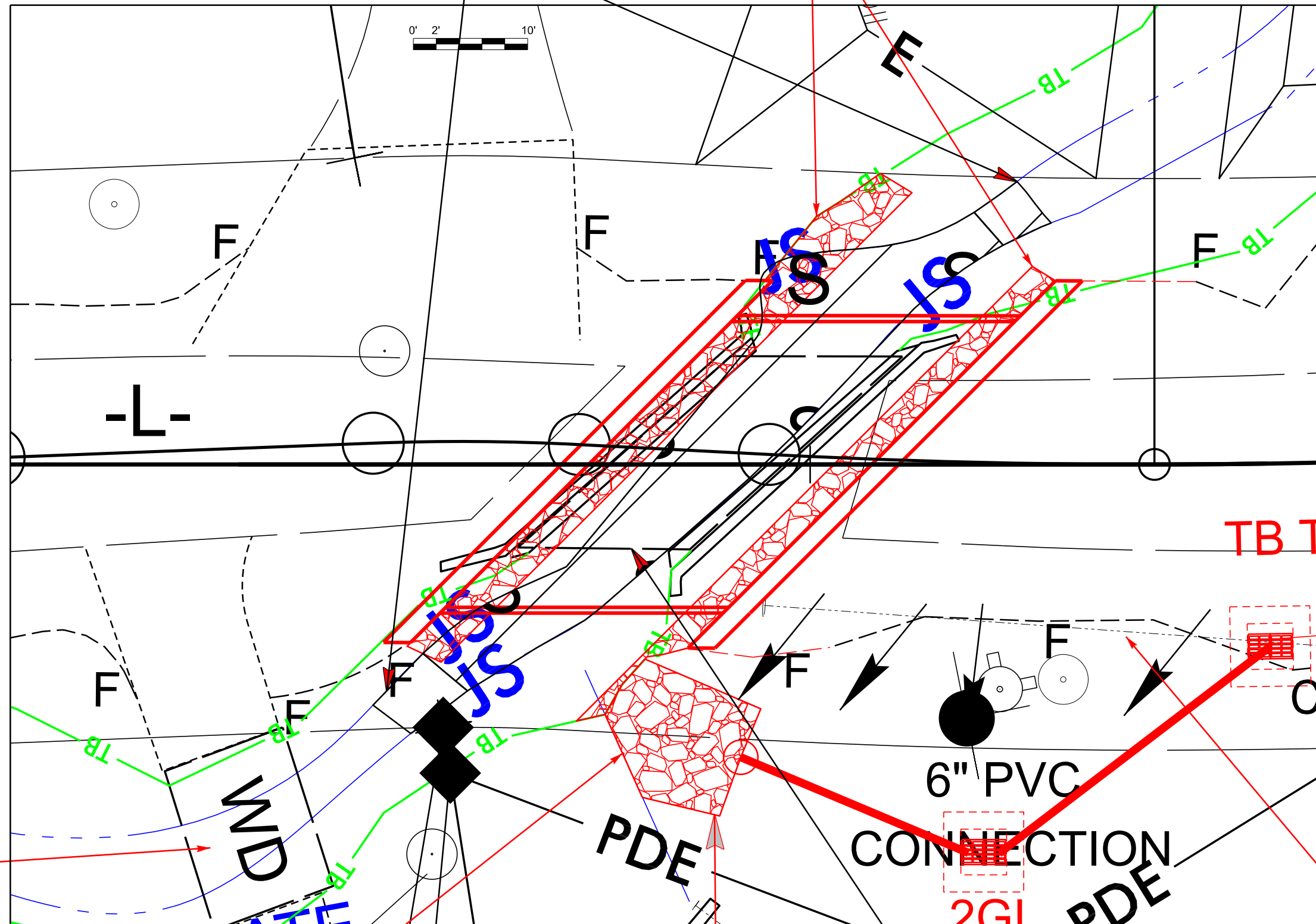
TEMPORARY SURFACE WATER IMPACTS

STREAM RE-ESTABLISHMENT
SEE DETAIL 2



TEMPORARY SURFACE WATER IMPACTS

SURFACE WATER IMPACTS



RETAIN

RIP RAP AT EMBANKMENT
SEE DETAIL 3

SITE 3

PERMANENT SURFACE
WATER IMPACTS

FLOWABLE
FILL = 6 CY



DF18314.2045335

ROADWAY DESIGN
ENGINEER

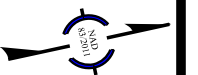
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WETLAND AND SURFACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	11+14 to 12+16 -L-	Channel Change						0.02	< 0.01	98	10	
2	11+31 to 11+34 -L-	Pipe installation							< 0.01		5	
3	12+62 to 13+21 -L-	Stream Re-establishment						< 0.01	< 0.01	62	10	
TOTALS*:								0.03	< 0.01	160	25	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

06/30/2026

Henderson County

DF18314.2045335

DF18314.2045335

SHEET

5

OF

5

Mitigation Acceptance

JOSH STEIN
Governor
D. REID WILSON
Secretary
MARC RECKTENWALD
Director



August 5, 2026

Mr. Robert Crowther
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Crowther:

Subject: Mitigation Acceptance Letter:

Replace Bridge 245 on SR 1528 (Locust Grove Road) over Featherstone Creek, Henderson County, WBS
DF18314.2045335

The purpose of this letter is to notify you that the North Carolina Department of Environmental Quality – Division of Mitigation Services (NCDEQ-DMS) will provide the mitigation for the subject project. Based on the information received from you on August 5, 2026, the impacts are located in CU 06010105 of the French Broad River basin, and are as follows:

Stream and Wetlands	Service Area	Stream			Wetlands		
		Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh
Impacts	French Broad 06010105	0	98.000	0	0	0	0

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

This impact and associated mitigation needs were not projected by the NCDOT in the 2026 impact dataset. NCDMS commits to implementing sufficient mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies in accordance with the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from NCDEQ-DMS.

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

Sincerely,

Elizabeth A. Harmon
DMS NCDOT ILF Coordinator

cc: Mr. Scott Jones, USACE
Ms. Faith Hardin, NCDWR
Mr. Brad Chilton, NCDOT – EAU
File: SR 1528 – Bridge 245 – Division 14



North Carolina Department of Environmental Quality | Division of Mitigation Services
217 West Jones Street | 1652 Mail Service Center | Raleigh, North Carolina 27699-1652
919.707.8976

ESA Consultation

Turchy, Michael A

From: Knepp, Cheryl L
Sent: Monday, July 27, 2026 11:23 AM
To: Turchy, Michael A; Crowther V., Robert E
Subject: Hurricane Helene project updates

From: Endries, Mark mark_endries@fws.gov
Sent: Tuesday, July 14, 2026 12:52 PM
To: Knepp, Cheryl L clknepp@ncdot.gov
Cc: Stanton, Tyler P tpstanton@ncdot.gov
Subject: Re: [EXTERNAL] Hurricane Helene project updates

Hello Everyone,

We have received your July 9, 2026, request to reinitiate consultation for five ongoing projects (25-144, 249, 258, 25-257, and 262) related to Tropical Storm Helene. These projects were previously addressed through the Helene batch consultation process but have not yet been completed.

Reinitiation is requested to address changes in the take prohibitions for the following species and projects:

- Northern long-eared bat, and tricolored bat - Projects 25-144, 249, and 258.
- Northern long-eared bat - Projects 25-257 and 262.

The reinitiation addresses changes to project plans, which now include minimal tree clearing (0.1 acres per project) with no ability to determine time of year for this tree clearing. This activity was not part of the original analysis for these particular projects and creates the potential for incidental take for the northern long-eared bat and tricolored bat.

After reviewing the revised action, the Service concludes that it is not likely to jeopardize the continued existence of these species. All provisions from the original biological opinions for each project now apply to the revised project activities. These provisions include the effects analyses, incidental take statements, terms and conditions, reasonable and prudent measures, and conservation measures, including contributions determined by the amount and season of tree clearing.

Sincerely,

Mark

Mark Endries
USFWS
160 Zillicoa St
Asheville, NC 28801
Office & Mobile: 828.373.4504
Mobile Only: 828.215.1740
[Chat](#)

From: Endries, Mark <mark_endries@fws.gov>
Sent: Friday, July 10, 2026 10:00 AM
To: Knepp, Cheryl L <clknepp@ncdot.gov>
Cc: Stanton, Tyler P <tpstanton@ncdot.gov>
Subject: Re: [EXTERNAL] Hurricane Helene project updates

Hello All,

Received. I should be able to get this to you next week.

Thanks!

Mark

Mark Endries

USFWS
160 Zillicoa St
Asheville, NC 28801
Office & Mobile: 828.373.4504
Mobile Only: 828.215.1740
[Chat](#)

From: Knepp, Cheryl L <clknepp@ncdot.gov>
Sent: Thursday, July 9, 2026 12:13 PM
To: Endries, Mark <mark_endries@fws.gov>
Cc: Stanton, Tyler P <tpstanton@ncdot.gov>
Subject: [EXTERNAL] Hurricane Helene project updates

Mark, we have several projects that went through the Helene batch process where previously they were determined to be No Effect based on early tree clearing estimates = 0 ac, however, plans now include minimal tree clearing. Can you please revise the below mentioned Helene batches and update these projects to MALAA using the updated biological rationale information. For ease, I would have run them through the PBO, but Buncombe 100199 and Henderson 440245 have acoustic buffers associated with them. Until we can get that issue resolved, we are not using the PBO if projects have acoustic records associated with their buffers. So, for consistency with the Helene process, we will individually consult for all of these. I will be leaving for vacation so I'm cc'ing Tyler and if you all decide a different path in the coming weeks for these, just cc me for my records.

Thank you,
Cheryl

TIP	County and Bridge No	Batch	USFWS Log Nos.	USFWS Date	Remarks	Original biological rationale and determination	Updated biological rationale and determination
DF18313.2011262.PR	Buncombe 100159	D 13, Batch 3	25-258	7/21/2025	Currently developing permit application	Terrestrial: wooden bridge contains no habitat for listed bat species. No tree clearing. This project is not expected to result in adverse effects. No Effect . Aquatics: For mussels USFWS IPaC review on 06/12/2025 revealed no aquatic species in the project area. No Effect based on this review. Per phone conversation on 1/29/2025 with USFWS there are no needed actions for the proposed Eastern Hellbender at this time.	Terrestrial: wooden bridge contains no habitat for listed bat species. However, minimal suitable tree clearing (0.1 ac) and unable to determine tree clearing TOY for bats, LAA. Bat CM - Tree Clearing Bat Fund. Aquatics: no change
DF18313.2011267.PR	Buncombe 100199	D 13, Batch 3	25-249	7/21/2025	Currently developing	Terrestrial: wooden bridge contains no habitat	Terrestrial: wooden bridge contains no

					permit application	for listed bat species. No tree clearing. This project is not expected to result in adverse effects. No Effect Aquatics: For mussels USFWS IPaC review on 06/12/2025 revealed no aquatic species in the project area. No Effect based on this review. Per phone conversation on 1/29/2025 with USFWS there are no needed actions for the proposed Eastern Hellbender at this time.	habitat for listed bat species. However, minimal suitable tree clearing (0.1 ac) and unable to determine tree clearing TOY for bats, LAA. Bat CM - Tree Clearing Bat Fund. Aquatics: no change
DF18314.2045335	Henderson 440245	D 14, Batch 1	25-144	5/13/2025		Terrestrial: Three temporary CMPs <60' in length do not provide habitat for bats. No evidence of bat use observed on 12/13/2024. No Effect. Aquatics: No mussels listed. No effect. Per phone conversation on 1/29/2025 with USFWS there are no needed actions for the proposed Eastern Hellbender at this time.	Terrestrial: pipe contains no habitat for listed bat species. However, minimal suitable tree clearing (0.1 ac) and unable to determine tree clearing TOY for bats, LAA. Bat CM - Tree Clearing Bat Fund. Aquatics: no change
DF18313.2061559.PR	Mitchell 600156	D 13, Batch 3	25-262	7/21/2025		Terrestrial: wooden bridge contains no habitat for listed bat species. No tree clearing. This project is not	Terrestrial: wooden bridge contains no habitat for listed bat species. However, minimal suitable tree

					expected to result in adverse effects. No Effect. Aquatics: For mussels USFWS IPaC review on 06/12/2025 revealed no aquatic species in the project area. No Effect based on this review. Per phone conversation on 1/29/2025 with USFWS there are no needed actions for the proposed Eastern Hellbender at this time.	clearing (0.1 ac) and unable to determine tree clearing TOY for bats, LAA. Bat CM - Tree Clearing Bat Fund. Aquatics: no change
18313.110052.PR	Yancey 990188	D 13, Batch 3	25-257	7/21/2025	Terrestrial: wooden bridge contains no habitat for listed bat species. No tree clearing. This project is not expected to result in adverse effects. No Effect. Aquatics: For mussels USFWS IPaC review on 06/12/2025 revealed no aquatic species in the project area. No Effect based on this review. Per phone conversation on 1/29/2025 with USFWS there are no needed actions for the proposed Eastern Hellbender at this time.	Terrestrial: wooden bridge contains no habitat for listed bat species. However, minimal suitable tree clearing (0.1 ac) and unable to determine tree clearing TOY for bats, LAA. Bat CM - Tree Clearing Bat Fund. Aquatics: no change

From: Knepp, Cheryl L clknepp@ncdot.gov
Sent: Thursday, July 9, 2026 3:58 PM
To: Turchy, Michael A maturchy@ncdot.gov
Cc: Crowther V., Robert E recrowther@ncdot.gov
Subject: RE: Helene No Effects to LAA?

FYI, I sent the projects off to USFWS, I ended up not utilizing the PBO since a couple were in excluded areas. So, I just asked USFWS to use the same Log no as before and individually consult. Tyler was cc'd in case you have questions.

Thank you,
Cheryl

Biological and Conference Opinions and Informal Consultations – Batch Format

**Replace Multiple Crossing Structures Destroyed by Tropical Storm Helene in
Haywood, Henderson, Polk, Transylvania Counties, North Carolina**

Service Log #25-133 through 25-162



Prepared by:

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

GARY PEEPLES

Digitally signed by GARY
PEEPLES

Date: 2025.05.13 12:05:20 -04'00'

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

Table of Contents

Consultation History	4
Background	4
Projects	4
Informal Consultation	6
Biological Opinion and Conference Opinion.....	9
1. Introduction	9
2. Proposed Action.....	9
2.1 Action Areas	9
2.2 Project Description.....	11
2.3 Avoidance and Minimization and Conservation Measures	12
2.3.1 Avoidance and minimization measures (AMMs)	12
2.3.2 Conservation Measures (CMs).....	13
3. Status of the Species	14
3.1 Appalachian Elktoe	14
3.1.1 Description and Life History.....	14
3.1.2 Status and Distribution.....	15
3.1.3 Threats.....	15
3.2 Gray Bat	16
3.2.1 Description and Life History.....	16
3.2.2 Status and Distribution.....	17
3.2.3 Threats.....	18
3.3 Indiana Bat	18
3.3.1 Description and Life History.....	18
3.3.2 Status and Distribution.....	19
3.3.3 Threats.....	20
3.4 Northern long-eared Bat.....	20
3.4.1 Description and Life History.....	20
3.4.2 Status and Distribution.....	21
3.4.3 Threats.....	21
3.5 Tricolored Bat	21
3.5.1 Description and Life History.....	22
3.5.2 Status and Distribution.....	22
3.5.3 Threats.....	23
4. Environmental Baseline	23
4.1 Appalachian Elktoe Within the Action Areas.....	23
4.2 Listed and Proposed Bats Within the Action Areas.....	23

5. Effects of the Action	24
5.1 Appalachian Elktoe	24
5.1.1 Proximity of the Action, Nature of the Effect, and Disturbance Duration.....	24
5.1.2 Effects Analysis	24
5.2 Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat	26
5.2.1 Proximity of the Action, Nature of the Effect, and Disturbance Duration for Bats	26
5.2.2 Effects Analysis for Bats.....	26
5.3 Cumulative Effects.....	27
6. Conclusion and Jeopardy Determination	27
6.1 Appalachian elktoe.....	27
6.2 Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat	28
7. Incidental Take Statement.....	28
7.1 Amount of Take for Appalachian Elktoe	28
7.2 Amount of Take for Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat	29
7.3 Reasonable and Prudent Measures.....	30
7.4 Terms and Conditions	30
8. Conservation Recommendations.....	30
9. Reinitiation Notice	31
Literature Cited	32

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.

December 30-31, 2024: Service asked NCDOT questions about project impact estimates and NCDOT provided responses.

January 2, 2025: Phone discussion between NCDOT and the Service regarding aquatic impact area estimates.

January 7, 2025: NCDOT provided needed information on aquatic impact area estimates.

March 20, 2025: NCDOT submitted batched request for informal and formal consultation to the Service.

April 3, 2025: Service asked NCDOT questions on bridge information and related effect determinations.

April 9, 2025: NCDOT provided requested information.

April 10, 2025: NCDOT requested updates to the project information and effect determination for a bridge site.

April 16, 2025: NCDOT submitted three additional bridge locations to the batched request.

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 Express Design Build bridges are slated for completion in 2025, construction of some Design Bid Build bridges is expected to begin that year, with all construction concluding by late 2026 based on best-case scenarios. 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.
440055	Hungry River	Henderson	35.29855, - 82.3506	Severe sub damage, span two gone, east approach washed	25-133
440091	North Fork Big Willow Creek	Henderson	35.28937, - 82.55027	Bridge gone	25-134
440095	Reedypatch Creek	Henderson	35.44973, - 82.28779	Bridge gone; temporary bridge installed	25-135
440109	Clear Creek	Henderson	35.37995, - 82.39918	Bridge gone	25-136
440198	Clear Creek	Henderson	35.42464, - 82.34445	Bridge gone	25-137
440214	Broad River	Henderson	35.45092, - 82.2873	Severe sub damage, approach slabs, piles, bent caps	25-138
440263	Hickory Creek	Henderson	35.47757, - 82.34517	Bridge gone; temporary culvert installed	25-139
440262	Hickory Creek	Henderson	35.47692, - 82.34277	Bridge gone, temporary culvert and bridge installed	25-140
440250	Perry Creek	Henderson	35.28145, - 82.48741	Bridge gone; temporary bridge installed	25-141
440197	Reedypatch Creek	Henderson	35.43759, - 82.29491	Severe sub damage, approach slabs, railing, piles, temporary culvert installed	25-142
440186	South Fork Mills River	Henderson	35.37579, - 82.61464	Severe sub damage, decking, railing, bent caps, slope protection, approach slabs	25-143
440245	Featherstone Creek	Henderson	35.39394, - 82.44225	Bridge destroyed; three temporary culverts installed	25-144
440156	Little Hungry River	Henderson	35.38353, - 82.29722	Moderate damage, bent caps, slope protection	25-145
440166	Kyles Creek	Henderson	35.41837, - 82.40537	Severe sub damage, approach slabs, end bent, bridge settled one foot	25-146
440336	Clear Creek	Henderson	35.43633, - 82.32203	Bridge gone; temporary culvert installed	25-147
440024	Cane Creek	Henderson	35.43541, - 82.48887	Severe sub damage, severe erosion and undermining	25-148
430002	Cold Creek	Haywood	35.42304, - 82.82276	Bridge gone; temporary culverts installed	25-149
430034	Bald Creek	Haywood	35.61458, - 82.89736	Severe sub damage, half of the bridge is missing	25-150
430219	Jonathan's Creek	Haywood	35.5181, - 83.08622	Bridge gone; temporary bridge installed	25-151
430042	Pigeon River	Haywood	35.61439, - 82.96665	Severe sub damage, approach slabs, railing	25-152
430178	Liner Creek	Haywood	35.61996, - 82.86757	Severe sub damage, decking, railing, piles, bent caps, girders, bearing plates, slope protection.	25-153

430062	Cove Creek	Haywood	35.67633, - 82.93224	Bridge gone, temporary replacement with two corrugated metal pipes	25-154
430011	Crawford Creek	Haywood	35.39952, - 82.82522	Severe sub damage, decking, railing, piles, bent caps, girders, bearing plates, slope protection.	25-155
430031	Liner Creek	Haywood	35.61479, - 82.87074	Severe sub damage, decking, railing, piles, bent caps, girders, bearing plates, slope protection.	25-156
430163	West Fork Pigeon River Overflow	Haywood	35.47129, - 82.88723	Erosion around end bent	25-157
740112	North Pacolet River	Polk	35.22396, - 82.27063	Bridge gone	25-158
870066	North Fork French Broad River	Transylvania	35.15461, - 82.84002	Bridge gone	25-159
430266	Campbell Creek	Haywood	35.51388, - 83.09998	Bridge gone; temporary bridge installed	25-160
430046	Jonathan's Creek	Haywood	35.59170, - 83.00759	Bridge gone	25-161
430041	Crabtree Creek	Haywood	35.60272, - 82.93927	Bridge gone	25-162

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) and “May Affect, Not Likely to Adversely Affect” NLAA determinations, with supporting biological rationale.

Table 2. Species NLAA and NE Determinations

Structure Number	Waterbody	Service Log No.	NE and NLAA Species
440091	North Fork Big Willow Creek	25-134	NE: Gray bat, mountain sweet pitcher-plant (<i>Sarracenia rubra ssp. jonesii</i>), small whorled pogonia, swamp pink (<i>Helonias bullata</i>), Appalachian elktoe (<i>Alasmidonta raveneliana</i>). Rationale: For bats, absence of roosting habitat – bridge structure completely gone. For plants and Appalachian elktoe, absence of suitable habitat.
440095	Reedypatch Creek	25-135	NLAA: Gray bat, northern long-eared bat (<i>Myotis septentrionalis</i>), tricolored bat. Rationale: Lack of suitable roosting habitat, no tree clearing NE: rock gnome lichen (<i>Gymnoderma lineare</i>), small whorled pogonia, White irisette, swamp pink. Rationale: Absence of suitable habitat.

440109	Clear Creek	25-136	NE: Gray bat, northern long-eared bat, tricolored bat, small whorled pogonia, white irisette. Rationale: For bats, absence of roosting habitat – bridge structure completely gone, no tree clearing. For plants, absence of suitable habitat.
440198	Clear Creek	25-137	NE: Gray bat, northern long-eared bat, tricolored bat, rock gnome lichen, small whorled pogonia, white irisette. Rationale: For bats, absence of roosting habitat – bridge structure completely gone, no tree clearing. For plants, absence of suitable habitat.
440263	Hickory Creek	25-139	NE: Gray bat, northern long-eared bat, tricolored bat, rock gnome lichen, small whorled pogonia, white irisette. Rationale: For bats, absence of roosting habitat, no tree clearing. For plants, absence of suitable habitat.
440262	Hickory Creek	25-140	NE: Gray bat, northern long-eared bat, tricolored bat, rock gnome lichen, small whorled pogonia, white irisette. Rationale: For bats, absence of roosting habitat, no tree clearing. For plants, absence of suitable habitat.
440250	Perry Creek	25-141	NE: Gray bat, tricolored bat, bunched arrowhead, mountain sweet pitcher-plant, rock gnome lichen, small whorled pogonia, swamp pink. Rationale: For bats, absence of roosting habitat, no tree clearing. For plants, absence of suitable habitat.
440245	Featherstone Creek	25-144	NE: Gray bat, northern long-eared bat, tricolored bat, small whorled pogonia, white irisette. Rationale: For bats, absence of roosting habitat, no tree clearing. For plants, absence of suitable habitat.
440156	Little Hungry River	25-145	NE: Gray bat, northern long-eared bat, tricolored bat, small whorled pogonia, white irisette. Rationale: For bats, absence of roosting habitat, no tree clearing. For plants, absence of suitable habitat.
440166	Kyles Creek	25-146	NE: Gray bat, northern long-eared bat, tricolored bat, small whorled pogonia, white irisette, rock gnome lichen. Rationale: For bats, absence of roosting habitat, no tree clearing. For plants, absence of suitable habitat.
440336	Clear Creek	25-147	NE: Gray bat, northern long-eared bat, tricolored bat, small whorled pogonia, white irisette, rock gnome lichen. Rationale: For bats, absence of roosting habitat. For plants, absence of suitable habitat.
440024	Cane Creek	25-148	NLAA: Gray bat, northern long-eared bat, tricolored bat. Rationale: Existing cored slab bridge will remain, only provides marginal habitat, no tree clearing. NE: Small whorled pogonia, white irisette, Appalachian elktoe. Rationale: Absence of suitable habitat.
430034	Bald Creek	25-150	NE: Gray bat, Indiana bat, tricolored bat, small whorled pogonia, rock gnome lichen, Appalachian elktoe. Rationale: For bats, absence of roosting habitat, no tree removal. For plants and Appalachian elktoe, absence of suitable habitat.

430178	Liner Creek	25-153	NE: Gray bat, Indiana bat, tricolored bat, small whorled pogonia, rock gnome lichen, Appalachian elktoe. Rationale: For bats, existing timber bridge provides only marginal habitat, no tree removal. For plants and Appalachian elktoe, absence of suitable habitat.
430163	West Fork Pigeon River Overflow	25-157	NE: Gray bat, Indiana bat, northern long-eared bat, tricolored bat, small whorled pogonia, rock gnome lichen, Appalachian elktoe. Rationale: For bats, no evidence of bat use, no tree clearing. For plants and Appalachian elktoe, absence of suitable habitat.
740112	North Pacolet River	25-158	NE: Northern long-eared bat, tricolored bat, dwarf-flowered heartleaf (<i>Hexastylis naniflora</i>), white irisette. Rationale: For bats, absence of roosting habitat – bridge structure completely gone, no tree clearing. For plants, 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.

The NLAA determinations for listed bats are based on the presence of suitable riparian roosting, commuting, or foraging habitat and the lack of suitable structure-based roosting habitat; or on the presence of marginally suitable roosting habitat on temporary bridges where roosting would be considered unlikely, as addressed in the table. For these projects, adverse impacts to the noted bat species are not expected – that is, any impacts from the clearing of riparian vegetation or the removal of marginally suitable bridge structures is considered discountable, meaning extremely unlikely to occur based on what is known about the species, the site conditions, and the anticipated activities. Additionally, general protective measures will be implemented to the maximum extent possible. These measures are listed in Section 2.3 of this document, below, and further serve to reduce the likelihood that project work could adversely affect any bats occurring within the action areas.

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 Endangered Species Act (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 prohibitions against jeopardizing its continued existence and “take” will apply.

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 has 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. Based on the information provided and the analysis discussed for listed bat species above which also has applicability

here, we have determined that the proposed projects will not jeopardize the continued existence of the tricolored bat. Additionally, we would concur with the NCDOT's determination that the projects are NLAA the tricolored bat should the species become listed.

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 Opinion and is based on our review of the proposal to replace several crossing structures (Table 1) and the effects on the federally endangered Appalachian elktoe (*Alasmidonta raveneliana*), gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), and 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

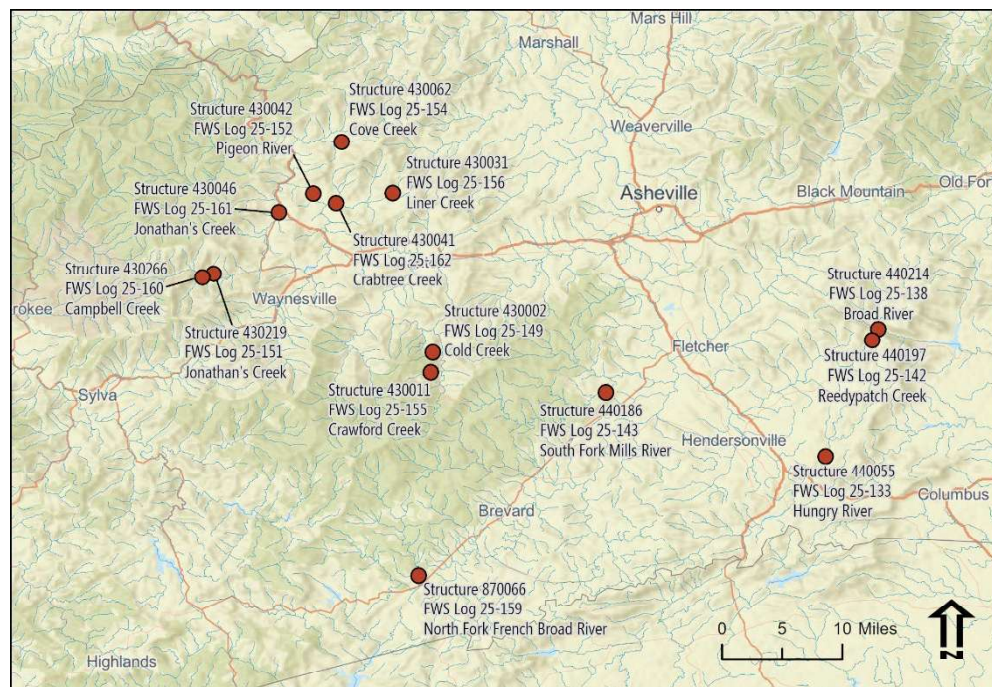
The project action areas are all areas of construction and include any portions of the project waterbodies, as indicated in Table 1, that may be affected by direct or indirect effects. The action areas are comprised of the:

- 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
440055	Hungry River	Henderson	35.29855, - 82.35060	25-133	Plants: NE Bats: LAA Aquatics: NE
440214	Broad River	Henderson	35.45092, - 82.2873	25-138	Plants: NE Bats: LAA Aquatics: NE
440197	Reedypatch Creek	Henderson	35.43759, - 82.29491	25-142	Plants: NE Bats: LAA Aquatics: NE
440186	South Fork Mills River	Henderson	35.37579, - 82.61464	25-143	Plants: NE Bats: LAA Aquatics: LAA
430002	Cold Creek	Haywood	35.42304, - 82.82276	25-149	Plants: NE Bats: LAA Aquatics: NE
430219	Jonathan's Creek	Haywood	35.5181, - 83.08622	25-151	Plants: NE Bats: LAA Aquatics: NE
430042	Pigeon River	Haywood	35.61439, - 82.96665	25-152	Plants: NE Bats: LAA Aquatics: NE
430062	Cove Creek	Haywood	35.67633, - 82.93224	25-154	Plants: NE Bats: LAA Aquatics: NE
430011	Crawford Creek	Haywood	35.39952, - 82.82522	25-155	Plants: NE Bats: LAA Aquatics: NE
430031	Liner Creek	Haywood	35.61479, - 82.87074	25-156	Plants: NE Bats: LAA Aquatics: NE
870066	North Fork French Broad River	Transylvania	35.15461, - 82.84002	25-159	Plants: NE Bats: LAA Aquatics: NE
430266	Campbell Creek	Haywood	35.51388, - 83.09998	25-160	Plants: NE Bats: LAA Aquatics: NE
430046	Jonathan's Creek	Haywood	35.59170, - 83.00759	25-161	Plants: NE Bats: LAA Aquatics: NE
430041	Crabtree Creek	Haywood	35.60272, - 82.93927	25-162	Plants: NE Bats: LAA Aquatics: NE

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



2.2 Project Description

The widespread infrastructure failure of numerous DOT bridges and roadways due to TS Helene necessitates an expedited design build repair/replacement process and batched consultation response. Consequently, specific details regarding the proposed project designs in Table 1 and associated action area impact details are not yet finalized. However, project activities and estimated impacts, based on the established practices of NCDOT's crossing structure replacement work, are available. At the time of this consultation, it is anticipated that most replacement bridges will be constructed using concrete box beam or cored slab designs. The general and expected elements of these crossing structure replacement projects are described below. The current estimated timeline for completion of these projects is late fall of 2026.

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 per structure replacement location 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 but is assumed to occur during any time of year, including summer months. 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, with an assumption that these activities will occur during any time of year, including summer months.

2.3 Avoidance and Minimization and Conservation Measures

NCDOT will employ the following agency Standards, Guidelines, 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 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.

Aquatics- General AMMs will minimize impacts to listed/proposed aquatic species and **to the maximum extent possible** the following AMMs 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 [bents] to water resource, built to today's 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 implemented on 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.

Bats - General AMMs will minimize impacts to listed/proposed bats. **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 the 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.

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.

Aquatic CM: Aquatics Contribution - For individual bridge projects that are LAA aquatic species, the NCDOT will contribute \$10,000 for each project structure to the N.C. Nongame Aquatic Species Fund.

Aquatic CM: Relocation - For projects that are LAA aquatic species, prior to project construction, the Service Asheville Field Office NCDOT liaison and the NC Wildlife Resources Commission NCDOT liaison will be contacted to discuss the potential for aquatic species relocation, if applicable and practicable.

Bat CM - Tree Clearing Bat Fund Contribution: For individual bridge projects that are likely to adversely affect 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 as time of year clearing will occur is unknown. 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 is unknown, an assumed clearing acreage of 0.1 acre will be used based on estimates from previous clearing work at bridges (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) (KYTC 2019). Therefore 0.10 acre per bridge is used to calculate the amount of suitable bat habitat lost for projects involving structure impacts. However, the displacement affects to bats that must find a new roost while a new structure is being constructed are considered temporary in nature because the new structure will be replaced with a similar structure that will provide adequate roosting habitat again. Therefore, the ratio multiplier was reduced to 1.5:1 vs 2:1 used in the tree clearing contribution explained above. If the structure is demolished after March 15 when bats return to the landscape, a payment will be required, if not, no payment is required. The formula is calculated as follows:

$\$5,190 \times 0.1 \text{ ac} = 519 \times 1.5 \text{ (temporary affect multiplier)} = \$779 \text{ contribution/structure}$

3. Status of the Species

This section summarizes best available data about the biology and current condition of the Appalachian elktoe, gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), 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 Appalachian Elktoe

Scientific Name:	<i>Alasmidonta raveneliana</i>
Status:	Endangered
Date of Listing:	November 23, 1994
Critical Habitat:	Designated in 2002

3.1.1 Description and Life History

The Appalachian elktoe is a freshwater mussel endemic to the Blue Ridge Physiographic Province of WNC. This species exists in several small populations in the Upper Tennessee River system of North Carolina and Tennessee, inhabiting relatively shallow medium-sized creeks and rivers with cool, well-oxygenated, and moderate- to fast-flowing water.

Lea (1834) described the Appalachian elktoe from the French Broad River (FBR) system in North Carolina. Its shell is thin but not fragile, oblong, and somewhat kidney-shaped, with a sharply rounded anterior margin and a broadly rounded posterior margin. The periostracum (outer shell) of the Appalachian elktoe varies in color from dark brown to yellowish-brown in color. Rays may be prominent in some individuals, usually on the posterior slope, and nearly obscure in other specimens. The reproductive cycle of the Appalachian elktoe is similar to that of other native freshwater mussels. Males

release sperm into the water column, which is then taken in by the female through their siphons during feeding and respiration. The females retain the fertilized eggs in their gills until the larvae (glochidia) fully develop, after which they are released into the water and attach to appropriate species of fish hosts. Juveniles then detach from their fish host and sink to the stream bottom where they may continue to develop, provided that suitable substrate and water conditions are present (Service 2002).

3.1.2 Status and Distribution

The Appalachian elktoe is known only from the mountain streams of WNC and eastern Tennessee. It is found in gravelly substrates often mixed with cobble and boulders, in cracks of bedrock, and in relatively silt-free, coarse sandy substrates (Service 1996).

Although the complete historic range of the Appalachian elktoe is unknown, available information suggests that the species once lived in most of the rivers and larger creeks of the upper Tennessee River system in North Carolina, with the possible exception of the Hiwassee and Watauga River systems. In Tennessee, the species is known only from its present range in the main stem of the Nolichucky River. At the time of listing, two known populations of the Appalachian elktoe existed: the Nolichucky River, including its tributaries (the Cane River and the North Toe River); and the Little Tennessee River and its tributaries. The record in the Cane River was represented by one specimen found just above its confluence with the North Toe River (Service 1996). Since listing, the Appalachian elktoe has been found in additional areas. These occurrences include extensions of the known ranges in the Nolichucky River (North Toe River, South Toe River, and Cane River) and the Little Tennessee River (Tuckasegee River and Cheoah River) as well as a rediscovery in the FBR basin (Pigeon River, Little River, Mills River, and the main stem of the FBR). Many of these newly discovered populations are relatively small in number and range.

The Appalachian elktoe has experienced declines in two populations across its range. A sudden die-off in the Little Tennessee River, (once considered the largest and most secure population), occurred from 2005 – 2015. Surveys in 2017, 2018 and 2019 produced very low numbers, indicating a remnant population only a tiny fraction of its previous size. The species has also declined in the lower portion of the Nolichucky River. Appalachian elktoe were once common in all three tributaries of the Nolichucky River: North Toe, South Toe and Cane Rivers. In 2008, a fish kill resulted in the death of most of the Appalachian elktoe in the Cane River. Beginning in 2013, the Appalachian elktoe population in the lower South Toe River declined steeply which coincided with a major highway construction project and only occurred downstream of receiving streams in the project footprint. Appalachian elktoe are still present in the North and South Toe Rivers, but at reduced densities. It appears that the North Toe population is limited by urban runoff and mining effects to the river. The other populations of Appalachian elktoe appear to be stable (Tuckasegee, Cheoah, and Pigeon Rivers) or expanding (FBR). Prior to 2004, the FBR population appeared to be confined to two tributary streams (Little River and Mills River), but over the last few years the known range of Appalachian elktoe in the main stem of the FBR has expanded and it now appears to be well established, albeit at low density, over a broad area. At the time of this document, impacts to Appalachian elktoe from TS Helene in September of 2024 remain largely unknown. Extreme flooding and scour in many of the rivers occupied by the species is believed to have resulted in reduced abundance in several locations, while other areas likely lost fewer individuals.

3.1.3 Threats

The decline of the Appalachian elktoe throughout its historic range has been attributed to a variety of factors, including sedimentation, point and nonpoint-source pollution, and habitat modification (impoundments, channelization etc.). The low numbers of individuals and the restricted range of most of

the surviving populations make them extremely vulnerable to extirpation from a single catastrophic event or activity. Catastrophic events may consist of natural events, such as flooding or drought, as well as human influenced events, such as toxic spills associated with highways or railroads.

Natural flooding events combined with alteration of watersheds can lead to large fluctuations in abundance observed in Appalachian elktoe populations. Record catastrophic flooding in the range of Appalachian elktoe occurred during TS Helene during late September 2024. Many areas inhabited by Appalachian elktoe were severely damaged by erosive flooding, bedload scour, and bank failures. Observations immediately after the flooding in October 2024 revealed that despite severe flooding, certain portions of Appalachian elktoe occurrences in North Carolina, such as the upper Pigeon River, were relatively intact. Those observations indicate that the species is likely to remain in most of the affected areas, though individual numbers were likely greatly reduced in many inhabited locations. Portions of the FBR basin experienced catastrophic flooding in late summer 2021 due to the remnants of Tropical Storm Fred. The flooding likely resulted in loss of Appalachian elktoe individuals within populations in the hardest-hit portions of the Pigeon, Mills and French Broad Rivers.

Siltation resulting from improper erosion control of various types of land use, including agriculture, forestry, road construction, and development, has been recognized as a major contributing factor to the degradation of mussel populations (Service 1996). Siltation degrades substrate and water quality, increasing potential exposure to other pollutants, and direct smothering of mussels (Ellis 1936). The abrasive action of sediment on mussel shells has been shown to cause erosion of the outer shell, which allows acids to reach and corrode underlying layers (Harman 1974).

Sewage treatment effluent has been documented to significantly affect the diversity and abundance of mussel fauna (Goudreau *et al.* 1988). Goudreau *et al.* found that recovery of mussel populations might not occur for up to 2 river miles (3.22 kilometers) below points of chlorinated sewage effluent. Most of the water bodies where Appalachian elktoe still exist have relatively few point source discharges within the watershed and are rated as having "good" to "excellent" water quality by the North Carolina Division of Water Resources.

The introduction of exotic species, such as the Asian clam (*Corbicula fluminea*) and zebra mussel (*Dreissena polymorpha*), pose significant threats to native freshwater mussels. Competitive interactions for space, food, and oxygen between these species and native mussels, possibly at the juvenile stages (Neves and Widlak 1987) are the main concerns. At the time the Appalachian elktoe was listed, the Asian clam was not known from the stretch of the Little Tennessee River that it occupies; however, it has been observed in the Little Tennessee River in recent years and as mentioned earlier, may be a contributing factor to the decline of that population. When the Appalachian elktoe was listed, it was speculated that, due to its restricted distribution, it "may not be able to withstand vigorous competition" (Service 1996).

3.2 Gray Bat

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

3.2.1 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, while 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 commonly observed in bridges of concrete material 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). While foraging, the gray bat consumes a variety of insects, most of which are aquatic (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.

3.2.2 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).

3.2.3 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.

3.3 Indiana Bat

Scientific Name:	<i>Myotis sodalis</i>
Status:	Endangered
Date of Listing:	March 11, 1967
Critical Habitat:	Established in 1976

3.3.1 Description and Life History

The Indiana bat is a temperate, insectivorous, migratory bat that hibernates colonially in caves and mines in the winter. The species is widely distributed in a variety of wooded habitats, ranging from highly fragmented woodlands in agricultural landscapes to extensively forested areas. Roosting areas are preferred in forest stands with uneven-aged trees that can supply the canopy with large, dead trees in more direct sunlight and are near foraging areas and water sources. Some roosts do occur in living trees (primarily shagbark hickory) or damaged trees from several species. During winter, Indiana bats are restricted to suitable underground hibernacula. Most of these sites are caves located in karst areas of the east-central United States; however, Indiana bats also hibernate in other cave-like locations, including abandoned mines.

Maternity colonies form in early May and remain together until August. Females will rear a single pup from May into July. Temperatures and weather will alter the length of the time a pup will stay in the primary roost and females will relocate the pup to another snag to manage temperatures and

environmental conditions. In summer, most reproductive females occupy roost sites under the exfoliating bark of dead trees that retain large, thick slabs of peeling bark. Habitats in which maternity roosts occur include riparian zones, bottomland and floodplain habitats, wooded wetlands, and upland communities. Indiana bats typically forage in semi-open to closed (open understory) forested habitats, forest edges, and riparian areas.

Fall swarming and mating takes place between August and November and are at different sites from the actual hibernaculum. Typically, hibernation begins in November and lasts through March. Several variables influence hibernacula selection, but generally Indiana bats prefer caves with stable temperatures that remain below 50°F with humidity greater than 74 percent. Indiana bats emerge from hibernation in March or April and remain near the hibernacula to refuel before migrating to summer ranges. Migration distances vary but have been observed greater than 300 miles. Bats may be concentrated near hibernacula and often roost in trees during fall swarming and spring staging.

Indiana bats primarily feed on flying insects, including some from orders with both an aquatic and terrestrial stage. Numerous foraging habitat studies have found that Indiana bats often forage in closed to semi-open forested habitats and forest edges located in floodplains, riparian areas, lowlands, and uplands; however, old fields and agricultural fields are also used (Service 2007). Drinking water is essential, especially when bats actively forage. Indiana bats obtain water from streams, ponds, and water-filled road ruts in forest uplands. Consistent use of moths, flies, beetles, and caddisflies throughout the year at various colonies suggests that Indiana bats are selective predators to a certain degree, but incorporation of other insects into the diet also indicates that these bats can be opportunistic (Murray and Kurta 2002).

3.3.2 Status and Distribution

Indiana bats can be found primarily in the midwestern and eastern part of the United States, with a range stretching east to west from Vermont to Oklahoma, and north to south from Michigan to Alabama, and comprising approximately 403,883 square miles. WNC falls on the southeast edge of their range. No known active hibernacula are present in WNC, and summer maternity colonies are widely dispersed, with most locations unknown (Service 2019a).

According to the 2024 population status updated (Service 2024), range-wide there are approximately 631,786 Indiana bats, using 194 hibernacula across 15 states. The nine most populous hibernacula are home to 91% of Indiana bats, though none are in North Carolina or adjacent states. The Service divides the Indiana bat range into four recovery units, delineating evidence of population discreteness and genetic differentiation, differences in population trends, and broad-level differences in macrohabitats and land use. North Carolina is part of the Appalachia Recovery Unit, which includes all of West Virginia, as well as portions of Pennsylvania, Virginia, and Tennessee. The Appalachian recovery unit represents 0.2% of the overall Indiana bat population.

There are 20 element occurrences of the Indiana bat in WNC based on NCNHP records, five of these are considered historical. There are several records of Indiana bats roosting in concrete-material bridges associated with a water crossing and of concrete material (NCDOT 2023a). According to approximately 2,000 bridge surveys conducted throughout WNC from 2000 - 2023, Indiana bats have been recorded roosting in WNC bridges at a usage rate of 0.2% (NCDOT 2023a) with use documented to occur from March - July. There are currently no records in North Carolina of Indiana bats roosting in culverts (NCDOT 2023b), though they have been found in culverts in other states. White Oak Blowhole cave in Tennessee (Great Smoky Mountains National Park) is located within five miles of the North Carolina

border. Therefore, part of the designated spring staging and fall swarming habitat associated with this hibernaculum extends into Swain County, NC.

3.3.3 Threats

Threats to the Indiana bat include modifications to caves, mines, and surrounding areas that change airflow and alter microclimate in the hibernacula. Human disturbance and vandalism pose significant threats during hibernation through direct mortality and by inducing arousal and consequent depletion of fat reserves. Natural catastrophes can also have a significant effect during winter because of the concentration of individuals in a relatively few sites. During summer months, possible threats relate to the loss and degradation of forested habitat. Migration pathways and swarming sites may also be affected by habitat loss and degradation. Although populations have increased in recent years, WNS poses an additional threat that has caused and may continue to cause population declines.

3.4 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

3.4.1 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). With one exception, all bridge roost records in Northern 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 similar to 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; Franc 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).

3.4.2 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).

3.4.3 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.

3.5 Tricolored Bat

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

3.5.1 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 winter, tricolored bats are found in caves and mines, although in the southern US, where caves are sparse, tricolored bats are often found roosting in culverts. 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 1 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 and in the warmest portions of its 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 similar to 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

3.5.2 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 commonly 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).

For tricolored bats, the Service split the bat's range into three Representation Units (RPU), 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).

3.5.3 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 Appalachian Elktoe Within the Action Areas

Flooding and scour from TS Helene impacted all waterbodies included in this consultation. Appalachian elktoe presence within an action area was identified at only one bridge: Henderson County bridge 186. Henderson County bridge 186 that spans South Fork Mills River experienced severe substructure, decking, approach slab, and railing damage, as well as damage to the sloped land surrounding the bridge. Post-storm in-water surveys have not been conducted at this time, given all the constraints already addressed, though discussions regarding site conditions as observed by the Service's Asheville Field Office aquatics recovery lead and/or aquatic biologists with NCWRC and NCDOT's Biological Surveys Group have occurred. While the major flood and scour event damaged the crossing structure and degraded the habitat, the potential for individual Appalachian elktoe to still occur within the action area remains. At the time of this consultation, those individual numbers are believed to be reduced from pre-Helene conditions but are not believed to be zero. One Appalachian elktoe is estimated based on pre-TS Helene estimates and anticipated storm losses.

4.2 Listed and Proposed Bats Within the Action Areas

Structures

Twenty-one of the thirty bridges included in this batch of TS Helene-related projects were completely destroyed. Of the remaining nine bridges, Henderson County structures 055, 186, 197, and 214, and

Haywood County structures and 042, still provide suitable roosting habitat, although significantly reduced and degraded from pre-storm conditions. For gray bats, primary roost structures can support several hundred to over 1,000 individuals, while most structures with observed roosting gray bats in WNC contain 1 to 10 individuals. The structures supporting those higher numbers of gray bats, whether culvert or bridge, are larger than average. The northern long-eared bats and Indiana bats observed roosting on bridges in WNC is between 1 and 2 individuals at any given time. In more detail, Natural Heritage data shows 2 gray bat bridge roost locations in Henderson County, 9 gray bat and 1 Indiana bat bridge roost locations in Haywood County, and 3 gray bat bridge roost locations in Transylvania County. There are currently no culvert roosting records for northern long-eared bat or Indiana bat in NC. Records of tricolored bat roosting in bridges and culverts in WNC consist mainly of 1-2 individual per structure. Within the action area of these damaged crossing structures, given size of the structures, the degraded and reduced roosting habitat available, and based on existing WNC data, it is estimated that 1 individual per species could be present within each structure at these crossing locations.

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. Of the 30 TS Helene-related bridge projects, 20 require no tree clearing. The remaining ten projects—Henderson County structure 197, Haywood County structures 002, 011, 031, 041, 046, 062, and 219, 266, and Transylvania County structure 066—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 a 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 Appalachian Elktoe

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

Based on the description of the action and the species’ biology, stressors to the Appalachian elktoe have been identified and are outlined below. The proximity of these actions will be within the waters occupied by Appalachian elktoe [within the action area] and duration of disturbance is expected during the construction phase of project work.

5.1.2 Effects Analysis

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

In-water Work

In-water work, such as the placement of causeways, demolition of remnant structures (if any), and placement of hard materials for new bents/structures or for bank stabilization, is likely to occur at the project locations. Installation of a temporary causeway may result in adverse effects to Appalachian elktoe and their fish host species due to the potential to bury individuals and harm fish host individuals or disrupt passage or other behavior while they are in place. Causeways also constrict river flows, which could potentially modify the hydrology and physical habitat conditions upstream and downstream of the respective fill areas. Causeways may impact hydrology and the physical habitat of the river. Rock causeway material may be washed away during extremely high flow events, which may kill, crush, or bury individuals, or otherwise degrade mussel habitat downstream of the footprint. Causeways increase the risk of stream bed and bank scour. The habitat downstream of causeways may experience higher velocities until removal. Temporary causeways may also act as physical and high-velocity barriers to fish movement. Demolition and construction may result in the loss of materials in the waterbody. While this isn't expected, given the implementation of BMPs, it is still possible. Materials that aren't effectively contained during demolition or construction could serve to crush or bury aquatic species. Similarly, the placement of hard materials within the waterbody may result in crushing or burying Appalachian elktoe.

Alteration of Flows and Channel Stability

The initial construction of a crossing structure is known to cause changes in the flow of the stream and corresponding erosive processes that can alter the adjacent habitat. Channel instability occurs when scour results in degradation or when sediment deposition leads to aggradation (Rosgen 1996). Since most structures are being replaced in the same locations, any alteration of flows and channel stability associated with the new structures are anticipated to be minor and localized. That said, altering the existing in-water structures has the potential to create flow instability which could impact downstream habitat.

Turbidity and Sedimentation

Increases in turbidity and sedimentation within the action area during demolition and construction are expected. This can occur from in-water work and from the erosion of bare soil in and surrounding the construction zone, especially during heavy rain events. Sediment accumulations of less than one inch have been shown to cause high mortality in most mussel species (Ellis 1936). Adverse effects to mussels resulting from the accumulation of sediments include smothering, disruption of feeding and breeding activity, alteration of habitat, or some combination. Sediment and erosion control (SEC) devices, when properly designed and maintained, are expected to greatly reduce influxes of turbidity; however, heavy rain events can exceed SEC capacity, resulting in sediment releases which degrade mussel habitat in the vicinity.

In summary, the in-water work, flow and channel stability alteration, and turbidity and sedimentation within the action areas are likely to adversely affect Appalachian elktoe and take is expected. Take may occur in the form of killing, wounding, or harming individuals of the species.

Accidental Spills

The inadvertent spill or discharge of toxic pollutants, such as diesel fuel, hydraulic oil, and uncured concrete into action area waterbodies could occur during demolition and construction activities and result in mortality of Appalachian elktoe. The type, timing, amount, and proximity to the river of any accidental spills would determine the magnitude of effect to Appalachian elktoe, but may result in death, disrupt feeding or reproductive behaviors, influence animals to expend energy relocating to more favorable habitats, or otherwise reduce fitness. Significant spills resulting from negligent operation are possible, but unlikely to occur. Adhering to measures outlined in the AMMs and CMs will minimize the potential for accidental spills to occur.

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).

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

5.2.1 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.

5.2.2 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, if non-volant pups are present, while adults may be able to flush, pups 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, Indiana bat, northern long-eared bat, and tricolored bat in the form of harm.

Tree Removal

The removal of suitable roost trees, if conducted while Indiana bats, northern long-eared bats or tricolored 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. 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, if non-volant pups are present, while adults may be able to flush, pups 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 Indiana bat, 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 Indiana bats, 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.

5.3 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 Appalachian elktoe, gray bat, Indiana 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 Appalachian elktoe

It is the Service's biological opinion that the proposed actions are not likely to jeopardize the continued existence of the Appalachian elktoe. This opinion is based on the following factors: Effects of the actions occur as a result the planned replacement of Henderson County bridge 186. The species occurs in approximately 162 river miles in WNC and Eastern Tennessee (as understood pre-Helene); thus, impacts are likely to be limited to about 0.2% of the range-wide occupied habitat. Crossing structure construction activities are likely to negatively affect Appalachian elktoe within the action areas, but the incorporated conservation measures are expected to reduce impacts; notably, relocation efforts that could remove and relocate individual mussels prior to work taking place.

6.2 Gray Bat, Indiana Bat, Northern Long-eared Bat, and Tricolored Bat

It is the Service's biological and conference opinion that the proposed actions are not likely to jeopardize the continued existence of gray bat, Indiana bat, northern long-eared bat, or tricolored bat. This opinion is based on the following factors: Effects from these actions stem from the replacement of the following crossing structures and/or associated tree clearing: Henderson County structures 055, 186, 197, and 214; Haywood County structures 002, 011, 031, 041, 042, 046, 062, 219, and 266; and Transylvania County structure 066. 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, Indiana 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 Indiana bat, 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, Indiana bat in 27 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 miniscule percentage of those overall populations may be affected. Crossing structure construction activities are likely to negatively affect gray bat, Indiana 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 Act 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 Appalachian Elktoe

The Service anticipates incidental take of the Appalachian elktoe may occur as a result of the demolition (if applicable) and construction of Henderson County bridge 186. Specifically, take of the species may occur as a result of 1) riverbed disturbance in the form of bent removal and causeway construction, operation, and removal, 2) the resulting river instability, scour, sediment movement, and turbidity produced from those activities, and 3) demolition and construction activities around the crossings. During these activities, individual mussels may be crushed; harmed by increases in turbidity and scour, sediment movement, or other water quality degradation; or dislocated because of physical changes in their habitat. These impacts are expected to occur primarily within the structure construction footprints, with the potential for more minor impacts to occur 100 meters upstream and 400 meters downstream of the current structure locations.

Incidental take of Appalachian elktoe is difficult to measure or detect given that 1) mussels are small, aquatic, cryptic, and generally difficult to observe, 2) finding dead or injured mussels during or following project implementation is unlikely, 3) some incidental take is in the form of non-lethal harm and not directly observable; and 4) losses may be masked by seasonal fluctuations in numbers or other causes. Given this, the estimated amount of riverbed disturbance in acres or square feet is used as a surrogate measure of take for this Opinion. Additionally, as discussed in the Environmental Baseline, no more than one Appalachian elktoe is estimated to be present within the construction footprint immediately surrounding the structures and, to the best of situational abilities, efforts will be made to relocate individuals if found prior to construction in an effort to reduce mortality.

Therefore, the incidental take permitted by the Opinion would be exceeded if either of the following occurs:

1. The construction footprint (placement of permanent fill, causeways, and associated actions) exceeds 0.35 acres (15,226 square feet) at any crossing structure construction location.
2. Take of greater than one Appalachian elktoe is observed.

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 Appalachian elktoe is expected to be in the form of harm, wounding, or death.

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

The Service anticipates incidental take of gray, Indiana, northern long-eared, and tricolored bats may result from the demolition (if applicable) and construction of crossing structures 055, 186, 197, and 214 (Henderson County); 002, 011, 031, 041, 042, 046, 062, 219, and 266 (Haywood County); and 066 (Transylvania County), as well as any associated tree clearing. 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 Indiana 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, Indiana 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 1 individual of gray bat or 2 individuals of northern long-eared bat, Indiana 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 Indiana bat, 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.

7.3 Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize take of Appalachian elktoe, gray bat, Indiana 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.

7.4 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 of in-water impacts, if LAA for Appalachian elktoe.
 - ii. Acreage and dates of tree removal (if any), if LAA for bats (excepting gray bat).
 - iii. Dates of structure removal (if any), if LAA for bats.
 - iv. 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: Henderson County structure 186, Haywood County structure 163, and Transylvania County structure 066. Ahead of work at these locations, 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:** Close proximity to several aquatic species with North Carolina designations was noted for crossing structures: 024, 109, 186, and 198 in Henderson County; 002, 006, 042, 046, 163, and 266 in Haywood County; and 164 in Transylvania County. 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.

Literature Cited

- Brack, V., Jr. and R.K. LaVal. 2006. Diet of the gray bat (*Myotis grisescens*): variability and consistency, opportunism, and selectivity. *Journal of Mammalogy*, 87(1):7-18.
- Brack, V. and J.O. Whitaker, Jr. 2001. Foods of the Northern myotis, *Myotis septentrionalis*, from Missouri and Indiana, with notes on foraging. *Acta Chiropterologica*. 3. 203-210.
- Cheng, T., B. E. Reichert, W. E. Thogmartin, B. J. Udell, A. M. Wiens, M. Whitby, W. Frick, J.D. Reichard, and J. Szymanski. 2022. Winter Colony Count Analysis for Little Brown, Northern Long-eared, and Tricolored Bat Species Status Assessment. Chapter D in Straw, B.R, J. A. Martin, J.D. Reichard, and B.E. Reichert, editors. Analytical Assessments in Support of the U.S. Fish and Wildlife Service 3-Bat Species Status Assessment. Cooperator Report prepared in cooperation with the U.S. Geological Survey, United States Fish and Wildlife Service and Bat Conservation International. <https://doi.org/10.7944/P9B4RWEU>
- Elliott, W.R. 2008. Gray and Indiana Bat population trends in Missouri. Pp. 46–61, in W.R. Elliott, Ed. Proceedings of the 18th National Cave and Karst Management Symposium. Oct. 8–12, 2007. National Cave and Karst Management Symposium Steering Committee, St. Louis, MO.
- Ellis, M. M. 1936. Erosion silt as a factor in aquatic environments. *Ecology*. 17:29-42.
- Ellison, L.E., M.B. Wunder, C.A. Jones, C. Mosch, K.W. Navo, K. Peckham, J.E. Burghardt, J. Annear, R. West, J. Siemaers, R.A. Adams, and E. Brekke. 2003. Colorado bat conservation plan. Colorado Committee of the Western Bat Working Group. Available at <https://cnhp.colostate.edu/cbwg/wp-content/uploads/cbwg/pdfs/ColoradoBatConservationPlanFebruary2004.pdf>.
- Francel, K. E. 2008. Summer bat activity at woodland seasonal pools in the northern Great Lakes region.
- Goudreau, S. E., R. J. Neves, and R. J. Sheehan. 1988. Effects of sewage treatment effluents on mollusks and fish of the Clinch River in Tazewell County, Virginia. Final Rep., U.S. Fish and Wildl. Serv. 128 pp.
- Harman, W. N. 1974. The effects of reservoir construction and channelization on the mollusks of the upper Delaware watershed. *American Malacological Union*. 1973:12-14.
- LaVal, R. K., R. L. Clawson, M. L. LaVal, and W. Caire. 1977. Foraging behavior and nocturnal activity patterns of Missouri bats, with emphasis on the endangered species *Myotis grisescens* and *Myotis sodalis*. *Journal of Mammalogy*. 58:592-599.
- Martin, C.O. 2007. Assessment of the population status of the gray bat (*Myotis grisescens*). Status review, DoD initiatives, and results of a multi-agency effort to survey wintering populations at major hibernacula, 2005-2007. Environmental Laboratory, U.S. Army Corps of Engineers, Engineer Research and Development Center Final Report ERDC/EL TR-07-22. Vicksburg, MS. 97pp.
- Nagorsen, D.W. and R.M. Brigham. 1993. Bats of British Columbia. UBC Press in collaboration with the Royal British Columbia Museum. Vancouver, BC.
- North Carolina Department of Transportation (NCDOT). 2014. Stormwater Best Management Practices Toolkit (Version 2). NCDOT Hydraulics Unit. https://connect.ncdot.gov/resources/hydro/Stormwater%20Resources/NCDOT_BMPToolbox_2014_April.pdf
- North Carolina Department of Transportation (NCDOT). 2015a. Erosion and Sediment Control Design and Construction Manual (2015 Edition). NCDOT Roadside Environmental Unit. https://connect.ncdot.gov/resources/hydro/HSPDocuments/NCDOT_ESC_Manual_2015.pdf
- North Carolina Department of Transportation (NCDOT). 2023a. Combined Bridge Inspection Database. Accessed March 6, 2024. Last updated February 14, 2024.

- North Carolina Department of Transportation (NCDOT). 2023b. Combined Culvert Inspection Database. Accessed March 6, 2024. Last updated February 14, 2024.
- Ratcliffe, J.M. and J.W. Dawson. 2003. Behavioral flexibility: the little brown bat, *Myotis lucifugus*, and the northern long-eared bat, *M. septentrionalis*, both glean and hawk prey. *Animal Behaviour* 66:847-856.
- Sasse, D. Blake, Richard L. Clawson, Michael I. Harvey, Steve L. Hensley. 2007 Status of Populations of the Endangered Gray Bat in the Western Portion of its Range. *Southeastern Naturalist* 6 (1), 165-172.
- Tennessee Wildlife Resource Agency (TWRA). 2019. Tennessee winter bat population and white-nose syndrome monitoring report for 2018–2019. TWRA Wildlife Technical Report 19-6, 50p.
- Thalken, Marissa & Lacki, Michael & Yang, Jian. 2018. Landscape-scale distribution of tree roosts of the northern long-eared bat in Mammoth Cave National Park, USA. *Landscape Ecology*. 33.
- Tuttle, M.D. 1976. Population Ecology of the Gray Bat (*Myotis grisescens*): Factors Influencing Growth and Survival of Newly Volant Young. *Ecology*, Ecological Society of America. Volume 57, Issue 3, Pages 587-595.
- U.S. Fish and Wildlife Service (Service). 1996. Appalachian Elktoe (*Alasmidonta raveneliana*) Recovery Plan. Atlanta, Georgia, 30 pp.
- United States Fish and Wildlife Service (Service). 2015. Endangered and threatened wildlife and plants; threatened species status for the northern long-eared bat with 4(d) rule; final rule and interim rule. *Federal Register* 80(63):17974-18033.
- United States Fish and Wildlife Service (Service). 2020a. Northern Long-eared Bat (*Myotis septentrionalis*).
- United States Fish and Wildlife Service (Service). 2020b. Programmatic Biological Opinion on the Effects of Transportation Projects in Kentucky on the Indiana Bat and Gray Bat. Kentucky Ecological Services Field Office, Frankfort, Kentucky.
- United States Fish and Wildlife Service (Service). 2021. Species Status Assessment Report for the Tricolored Bat (*Perimyotis subflavus*), Version 1.1. Hadley, MA.
- United States Fish and Wildlife Service (Service). 2022a. Species Status Assessment Report for the Northern long-eared bat (*Myotis septentrionalis*), Version 1.1. Midwest Regional Office, Bloomington, MN.
- United States Fish and Wildlife Service (Service). 2023. Interim Consultation Framework for Northern Long-eared bat: Standing Analysis.
<https://www.fws.gov/sites/default/files/documents/App%20A%20Standing%20Analysis%20Int>
- Weber, J., J. O'Keefe, B. Walters, F. Tillman, and C. Nicolay. 2020. Distribution, Roosting and Foraging Ecology, and Migration Pathways for Gray Bats in Western North Carolina. NCDOT Project 2018-36, FHWA/NC/2018-36.
- Wiens, A.M., J. Szymanski, B.J. Udell, and W. E. Thogmartin. 2022. Winter Colony Count Data Assessment and Future Scenarios for the Little Brown, Northern Long-eared, and Tricolored Bat Species Status Assessment. Chapter E in Straw, B.R., J. A. Martin, J.D. Reichard, and B.E. Reichert, editors. *Analytical Assessments in Support of the U.S. Fish and Wildlife Service 3-Bat Species Status Assessment*. Cooperator Report prepared in cooperation with the U.S. Geological Survey, United States Fish and Wildlife Service and Bat Conservation International.
<https://doi.org/10.7944/P9B4RWEU>
- Whitaker, J. O., Jr., L. Pruitt, and S. Pruitt. 2001. The gray bat, *Myotis grisescens*, in Indiana. *Proceedings of the Indiana Academy of Science* 110:114-122.

Archaeology

**NO ARCHAEOLOGICAL SURVEY REQUIRED FORM**

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Team.

**PROJECT INFORMATION**

Project No: **No TIP** County: **Henderson**
 WBS No: **DF18314.2045335** Document: **Federal CE**
 Federal Aid No: **None Listed** Funding: ☐ State ☒ Federal
 Federal Permit Required? ☒ Yes ☐ No Permit Type: **USACE**

Project Description: Bridge No. 245 carries Locust Grove Road (SR 1528) over Featherstone Creek, near the Town of Fruitland in Henderson County. Bridge No. 245 is said to have been built in 1958 but has been completely destroyed by Hurricane Helene. The existing cross-section of Locust Grove Road (SR 1528) consists of a narrow 2-lane roadway, within what looks to be a maintained 60-foot ROW. It is believed that the proposed cross-section will remain the same with the new structure built on existing location. To accommodate the new structure, easements and/or additional ROW may be required. Although Preliminary Design Plans have not been generated, a Study Area was submitted to expedite the environmental review process. This Study Area will serve as the Area of Potential Effects (APE) and encompasses about 0.14 acre, inclusive of the existing roadway, ROW, and any other modern development in the immediate vicinity of the crossing.

SUMMARY OF CULTURAL RESOURCES REVIEW***Brief description of review activities, results of review, and conclusions:***

This project was accepted for review on Thursday, February 6, 2025. A compilation of data maintained by the Office of State Archaeology (OSA) was received later that same day. An archaeological survey has never been conducted in the vicinity of Bridge No. 245, and no archaeological sites have been recorded within one (1) mile of the proposed project. Digital copies of HPO's maps (Fruitland Quadrangle) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpweb/>) were last reviewed on Monday, February 10, 2025. There are no known historic architectural resources located within or adjacent to the APE; therefore, intact and significant archaeological deposits that may be associated with such resources are not anticipated to be found, especially within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or precontact settlement within the project limits, and to assess the level of slope as well as modern, agricultural, hydrological, and other erosive-type disturbances within and surrounding the APE.

(This project falls within a North Carolina County in which the following federally recognized tribes have expressed an interest: 1) Catawba Indian Nation, 2) Cherokee Nation, 3) Eastern Band of Cherokee Indians, 4) United Keetoowah Band of Cherokee Indians, and the 5) Muscogee (Creek) Nation. We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.)

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

This project is listed as being federally funded (FEMA?) and will require a federal permit. As part of the project's submittal, temporary/permanent easements as well as additional ROW may be necessary. Based on the size and shape of the APE, project activities may occur beyond the existing ROW along Locust Grove Road (SR 1528). If there were no Federal nexus for this project, please know that we would be in compliance with NC GS 121-12a since there are no eligible (i.e., National Register-listed) archaeological resources located within the APE that would require our attention.

From an environmental perspective, the APE (as drawn) mostly consists of the footprint where Bridge No. 245 once was and also appears to be limited to the existing ROW. Located within a sparsely settled narrow drainage within the Blue Ridge Mountain physiographic region in the southwestern part of North Carolina, the APE only encompasses about 0.14 acre and consists entirely of one (1) soil series: Codorus loam (arkaqua) (Co), a frequently flooded and somewhat poorly drained soil type. The APE consists of a narrow drainage bordered by steeply sloping topography and recent flooding has severely damaged Bridge No. 245 in the aftermath of Hurricane Helene. Overall, these conditions are considered less than ideal for stratigraphically intact archaeological resources to be present. The preservation of archaeological materials within the project area is considered to be poor.

Overall, the Office of State Archaeology (OSA) has conducted no archaeological reviews for environmental compliance in the vicinity of the proposed project. As a result, no archaeological surveys have been carried out in the general area. The closest project appears to have been a 27-mile-long pipeline replacement project (ER 15-0209), running from Buncombe County through Henderson County into Polk County. Although areas of disturbance, steep landforms, and poorly drained soils were present within the APE for that project, an archaeological survey was recommended and conducted (OSA Bib #7374) based on the presence of historic structures and a previously recorded archaeological site (31HN28) within a corridor traversing ideal landforms with moderate to high archaeological probability. Although fifteen (15) archaeological sites were recorded as a result of this survey, all fifteen (15) resources were deemed not eligible for the NRHP, most of which were either prehistoric lithic isolates or small Native American/Historic artifact scatters.

Within five (5) miles of the proposed project, NCDOT's Archaeology Group has reviewed at least sixteen (16) other transportation-related projects, for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). An archaeological survey was not recommended for a fair number of these projects (7/16), citing overly steep contexts, poor soil conditions, and/or the restrictive/constrained nature of each Study Area or APE [i.e., contained within existing ROW]). Archaeological surveys, however, were recommended for the remaining nine (9) projects based on the presence of either previously recorded archaeological sites/historic resources and/or favorable/undisturbed landforms with ideal soil characteristics within or adjacent to each project's Study Area/APE. Please refer to the following PA projects for more details: 11-01-0004, 11-09-0087, 11-09-0088, 12-07-0062, 12-08-0080, 16-08-0004, 17-03-0004, 21-07-0005, and 24-02-0009. Twenty-one (21) archaeological sites were documented as a result of these surveys, 18 of which were recorded as part of the investigations for the 4.4-mile-long widening of NC 191 (PA 17-03-0004 [TIP# R-2588B]). Three (3) of those eighteen (18) sites were also deemed NRHP-eligible but would not be affected by the proposed undertaking. One site was an extensive Middle Archaic to Early Woodland period habitation site with intact subsurface deposits. The other two sites were historic in nature, turn-of-the-century abutments for the "King's Bridge" on the old route of Haywood Road and the foundation remains for a turn-of-the-century structure. Similar to Bridge No. 112 in Polk County, Bridge No. 245 is also situated at a very narrow chokepoint prior to entering a broader floodplain area, which would be more ideal for historic occupation to occur. Therefore, the very constricted APE (basically limited to the existing ROW) is considered to have a low probability for archaeological resources to be present.

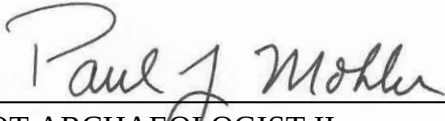
From a topographical perspective, LiDAR imagery does not reveal anything of note in and immediately adjacent to the APE, and unfortunately early maps of Henderson County were drawn at a scale not ideal for determining exact road alignments and configurations. However, some semblance of what may have become Locust Grove Road may be apparent on the 1907 Henderson County Soil Map (**Figure 2**). Oddly enough, what was present in 1907 may not have been considered part of the state-maintained system until the 1950s, since there is no depiction of this section of road in 1938 (**Figure 3**). The large-scale water impoundment for a recreational area for Twin Brooks property owners in the 1950s may have necessitated not only a slight realignment of Locust Grove Road as it crosses Featherstone Creek (i.e., built in 1958) but also a new alignment extension of the road that shortened the distance and time traveled to Locust Grove Baptist Church (**Figure 4**). The only items of note in the District Files are that: 1) in December 1995, this section of Locust Grove Road was presumably resurfaced (Road Inventory Workbooks 1945-2008) and 2) this section of Locust Grove Road was noted as an Unimproved/"Primitive" Road from 1957 to 1972 (Road Inventory Let Maps 1957-2003). With that said, based on the images provided and the damage caused by Hurricane Helene (**Figures 5-6**), the proposed structure will not impact anything that has not already been damaged or destroyed in the aftermath of Hurricane Helene.

Despite some of the information above, there is a low probability for significant prehistoric and/or historic archaeological materials to be present within the APE. Therefore, it is believed that the APE, as depicted, is unlikely to contain intact and significant archaeological resources. No archaeological survey is required for this project. If design plans change or are made available prior to construction, then additional consultation regarding archaeology may be required. At this time, no further archaeological work is recommended. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," including notification of NCDOT's Archaeology Group.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info ☒ Photos ☐ Correspondence
Other:

FINDING BY NCDOT ARCHAEOLOGIST: NO ARCHAEOLOGY SURVEY REQUIRED



NCDOT ARCHAEOLOGIST II

February 10, 2025

Date

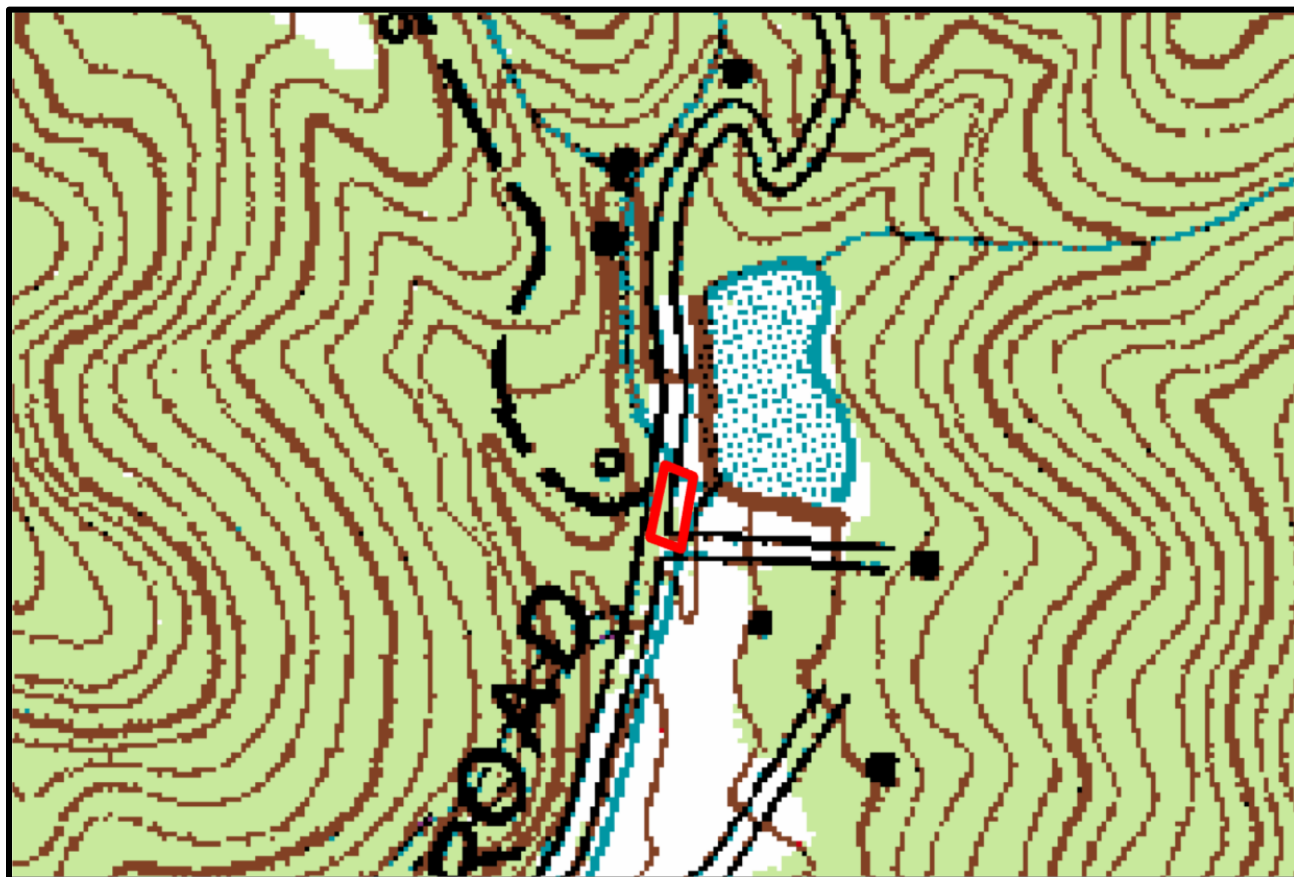


Figure 1: Fruitland, NC (USGS 1997 [2001rev]) [Red = APE].

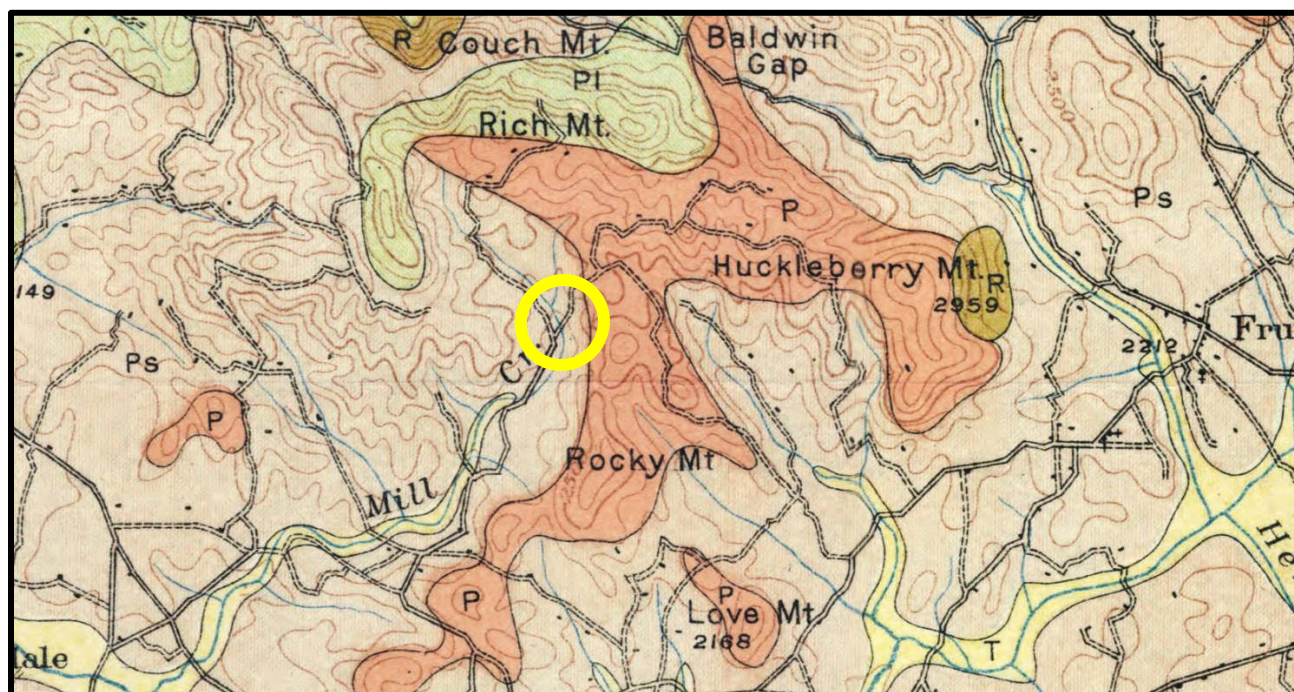


Figure 2: Soil Map, North Carolina, Henderson County Sheet (Hearn and MacNider 1907, available online: <https://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/272/rec/3>, last accessed 10 Feb 2025) [Yellow = Project Area].

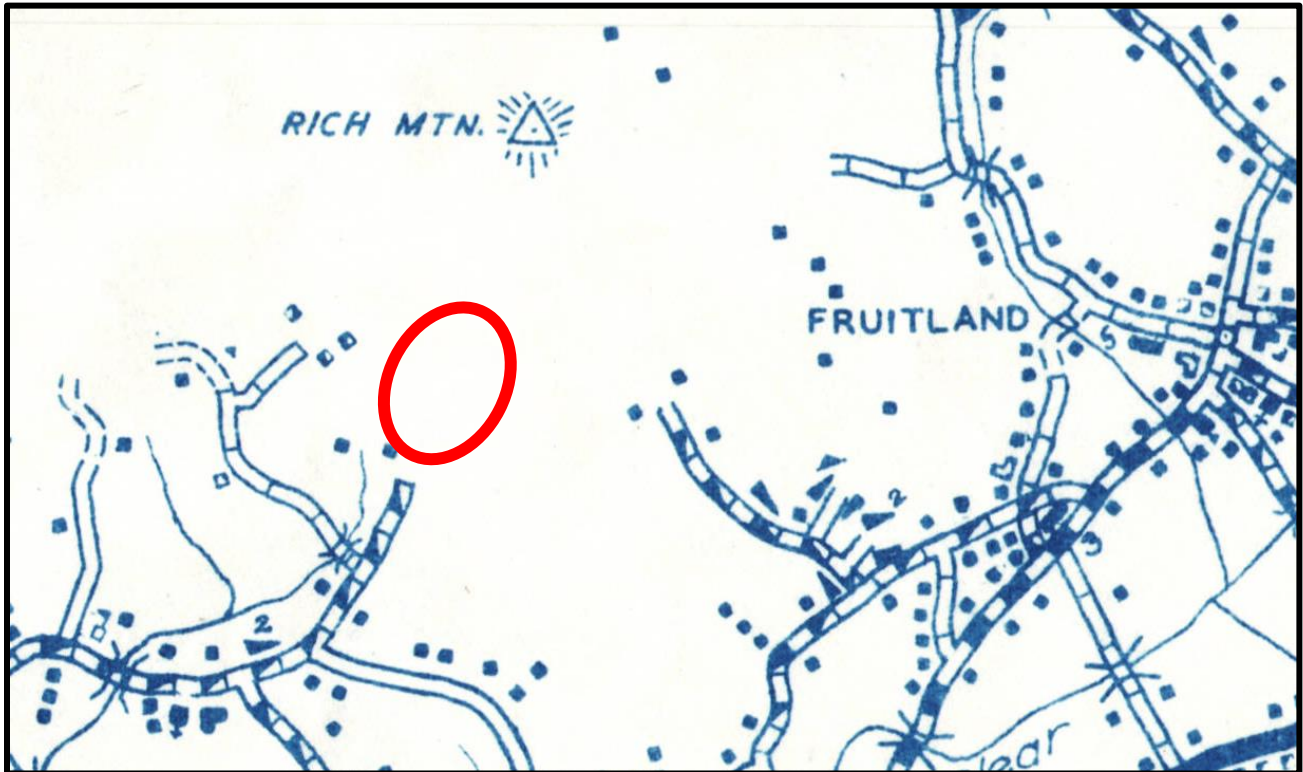


Figure 3: Henderson County, North Carolina (NC State Highway and Public Works Commission 1938, available online: <https://dc.lib.unc.edu/cdm/compoundobject/collection/ncmaps/id/570/rec/10>, last accessed 10 Feb 2025) [Red = Project Area].



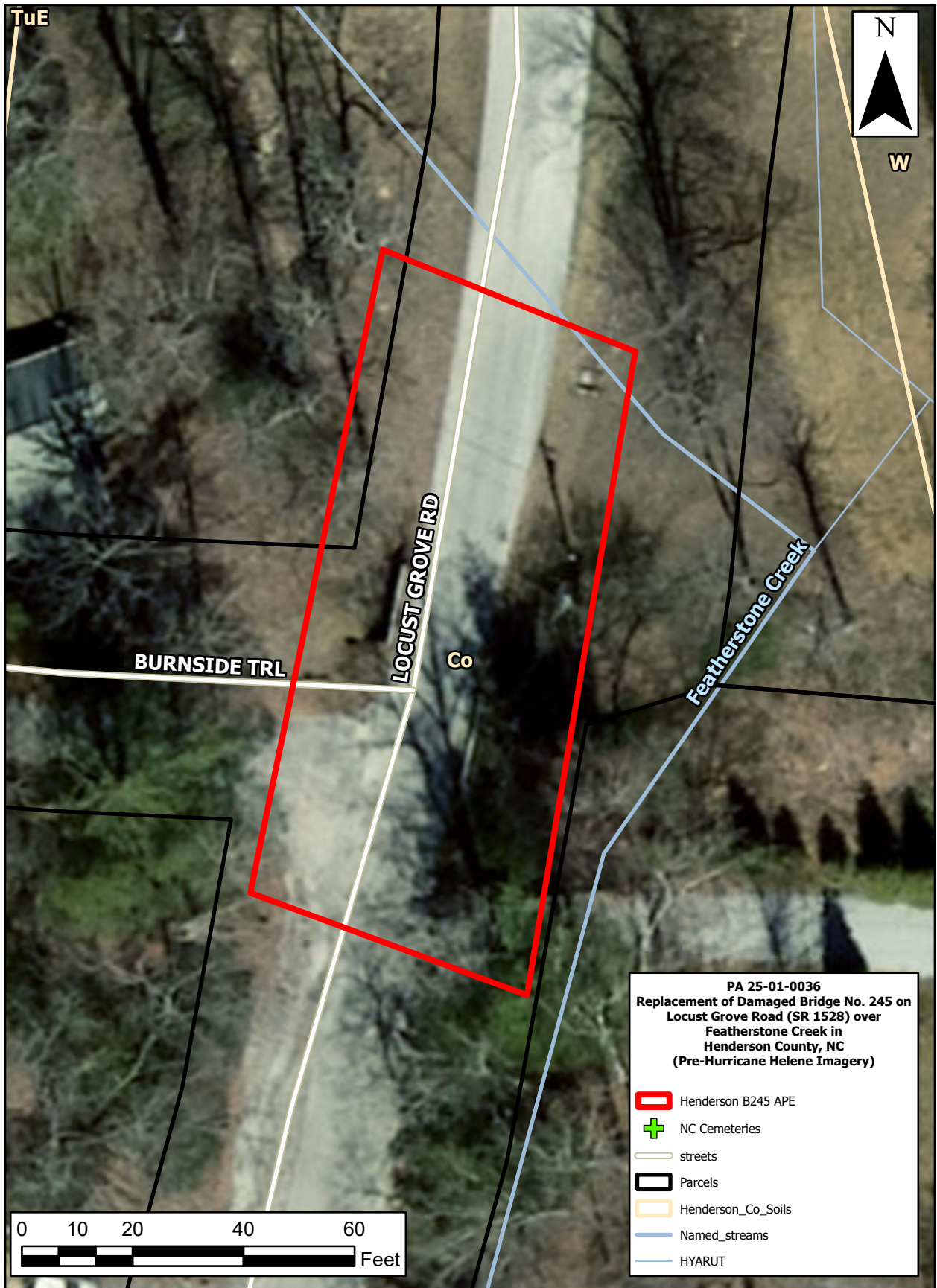
Figure 4: Aerial Imagery, dated 31 Mar 1957 (NCDOT Historical Aerial Imagery Index, accessed 10 Feb 2025) [Red = Project Area].

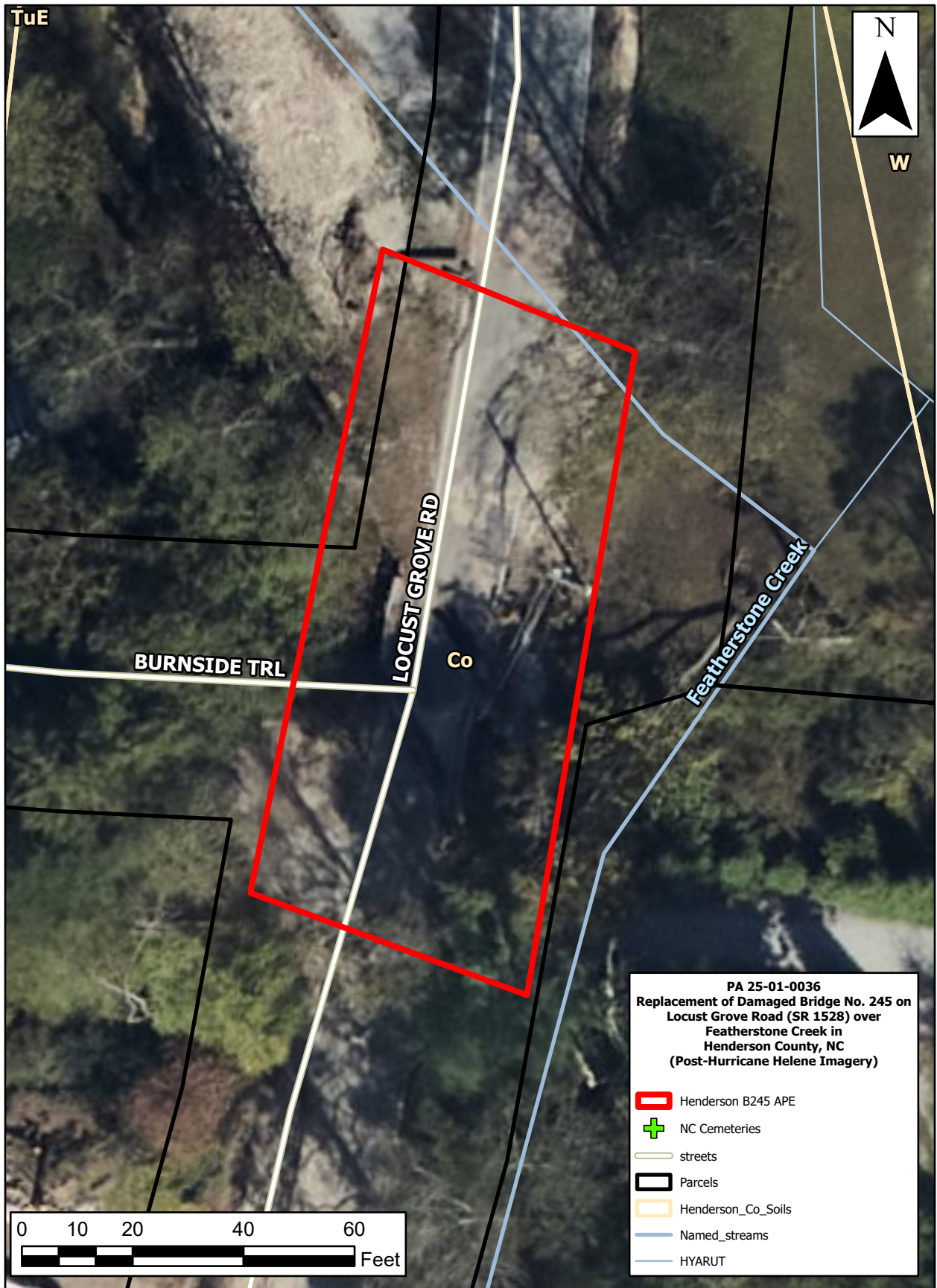


Figure 5: Project Area Conditions post-Hurricane Helene (Drone Image Viewer – 2024 Hurricane Helene, dated 9 Oct 2024).



Figure 6: Project Area Conditions post-Hurricane Helene (Drone Image Viewer – 2024 Hurricane Helene, dated 9 Oct 2024).





Historic Architecture & Landscapes

25-01-0036



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:		County:	Henderson
WBS No.:	DF18314.2045335	Document Type:	Federal CE
Fed. Aid No:		Funding:	☐ State ☒ Federal
Federal Permit(s):	☒ Yes ☐ No	Permit Type(s):	
Project Description: Replace Bridge No. 245 on SR 1528 (Locust Grove Road) over Featherstone Creek.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions:

Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on February 5, 2025. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects, which is defined on the following maps. Properties over fifty years of age were identified within the APE and visually surveyed through Google Maps Street View, and from this survey it was determined that all are unremarkable and/or have diminished integrity and do not warrant further evaluation. Bridge No. 245 is not eligible for National Register listing. There are no National Register listed or eligible properties and no survey is required. If design plans change, additional review will be required.

Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area:

HPO quad maps and GIS information recording NR, SL, LD, DE, and SS properties for the Henderson County survey, Henderson County GIS/Tax information, and Google Maps are considered valid for the purposes of determining the likelihood of historic resources being present. There are no National Register listed or eligible properties within the APE and no survey is required.

SUPPORT DOCUMENTATION

☐ Map(s) ☐ Previous Survey Info. ☐ Photos ☐ Correspondence ☐ Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

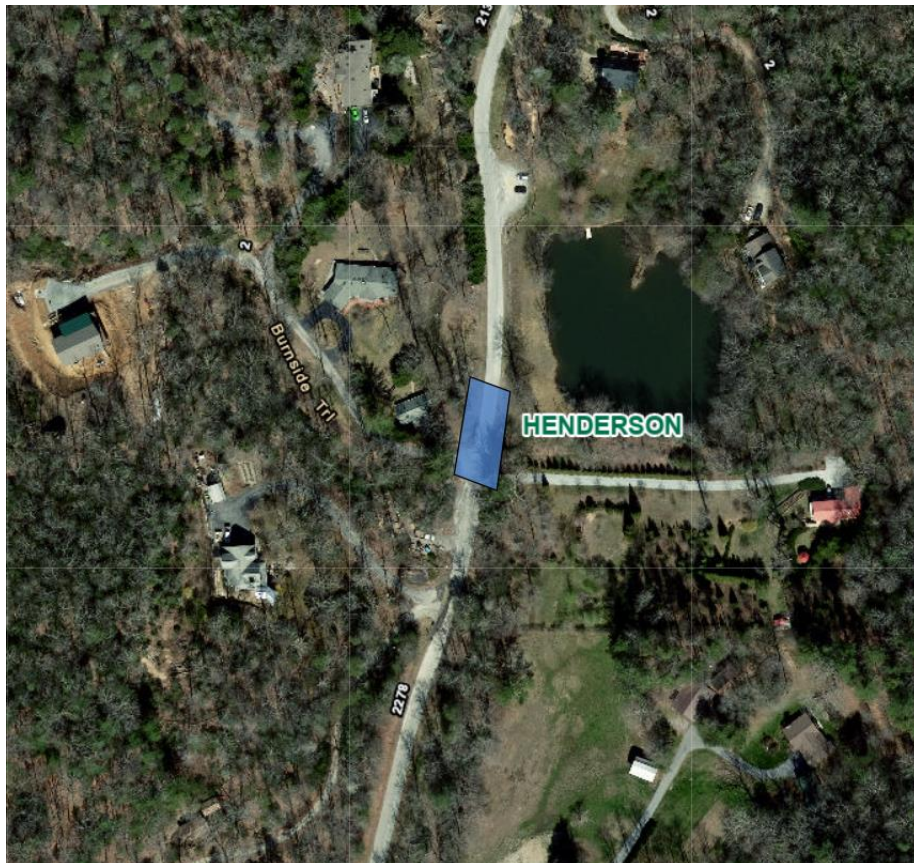
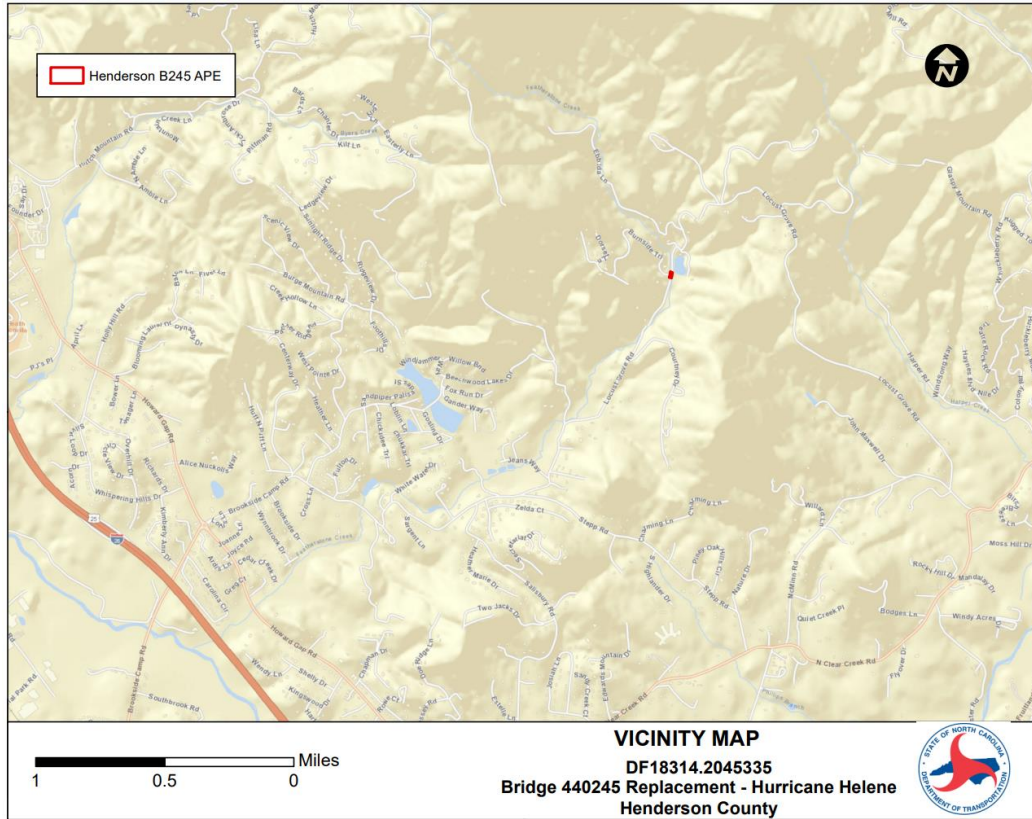
Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Kate Husband

NCDOT Architectural Historian

February 5, 2025

Date



State Historic Preservation Office GIS.

Historic Architecture and Landscapes NO SURVEY REQUIRED form for Minor Transportation Projects as Qualified in the 2007 Programmatic Agreement.

Tribal Coordination



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

February 11, 2025

Muscogee (Creek) Nation
PO BOX 580
Okmulgee, OK 74447
section106@muscogeenation.com

Elizabeth Toombs
Cherokee Nation
Tribal Historic Preservation Officer
PO BOX 948
Tahlequah OK, 74465
elizabeth-toombs@cherokee.org

Roger Cain
United Keetoowah Band of Cherokee Indians
Tribal Historic Preservation Office
PO BOX 1245
Tahlequah OK, 74465
rcain@ukb-nsn.gov

Dr. Wenonah Haire (via mail)
Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, SC 29730

Russell Townsend
Eastern Band of Cherokee Indians
Tribal Historic Preservation Office
2077 Governors Island Road
Bryson City NC 28713
russtown@nc-cherokee.com

Subject: DF18314.2045335 – Replacement of Bridge 245 Henderson County

Dear Tribal Nations:

The North Carolina Department of Transportation is starting the project development, environmental, and engineering studies to replace Bridge 245 over the Featherstone Creek on SR 1528 (Locust Grove Road) in Henderson County. The bridge was destroyed during Hurricane Helene. The Federal Highway Administration (FHWA) is the lead federal agency for compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) and a permit is anticipated under the Section 404 Process with the USACE. The project vicinity map is attached. The coordinates of this project are approximately 35.393938, --82.442246.

We would appreciate any information you might have that would be helpful in evaluating potential environmental impacts of the project including recommendation of alternatives to be studied. Your comments may be used in the preparation of a NEPA Environmental Document. An archaeological screening was performed of the APE. An archaeology survey was not required. See the attached report.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
BUSINESS UNIT NAME
345 TOOT HOLLOW ROAD
BRYSON CITY, NC 28713

Telephone: (828) 488-0902
Customer Service: 1-877-368-4968
Website: www.ncdot.gov

Location:
345 TOOT TOLLOW ROAD
BRYSON CITY, NC 28713

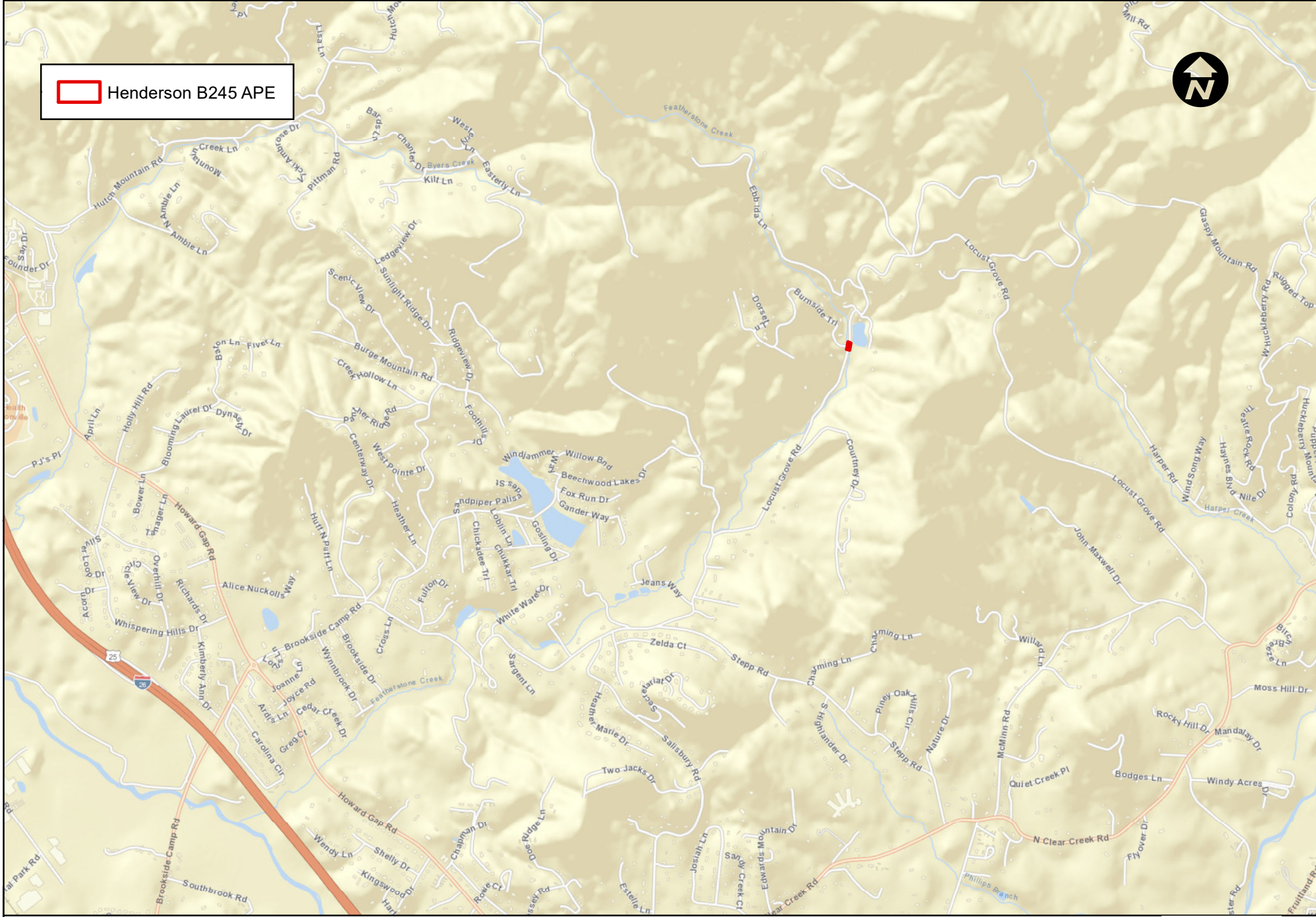
In accordance with Section 106 of the NHPA, we also request that you inform us of any historic properties of traditional religious or cultural importance that you are aware of that may be affected by the proposed project. Be assured that, in accordance with confidentiality and disclosure stipulations in Section 304 of the NHPA, we will maintain strict confidentiality about certain types of information regarding historic properties.

Please respond by **March 14, 2025** so that your comments can be used in the scoping of this project. If you have any questions concerning this project, or would like any additional information, please contact me at pjbreedlove@ncdot.gov.

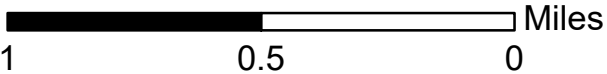
Sincerely,

Patrick J. Breedlove

Patrick J. Breedlove
Division 14 PDEA Engineer



 Henderson B245 APE



VICINITY MAP

DF18314.2045335

Bridge 440245 Replacement - Hurricane Helene
Henderson County

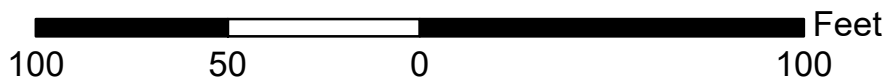




 Henderson B245 APE

Burnside Trl

Locust Grove Rd



VICINITY MAP

DF18314.2045335

Bridge 440245 Replacement - Hurricane Helene
Henderson County



**NO ARCHAEOLOGICAL SURVEY REQUIRED FORM**

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Team.

**PROJECT INFORMATION**

Project No: **No TIP** County: **Henderson**
 WBS No: **DF18314.2045335** Document: **Federal CE**
 Federal Aid No: **None Listed** Funding: ☐ State ☒ Federal
 Federal Permit Required? ☒ Yes ☐ No Permit Type: **USACE**

Project Description: Bridge No. 245 carries Locust Grove Road (SR 1528) over Featherstone Creek, near the Town of Fruitland in Henderson County. Bridge No. 245 is said to have been built in 1958 but has been completely destroyed by Hurricane Helene. The existing cross-section of Locust Grove Road (SR 1528) consists of a narrow 2-lane roadway, within what looks to be a maintained 60-foot ROW. It is believed that the proposed cross-section will remain the same with the new structure built on existing location. To accommodate the new structure, easements and/or additional ROW may be required. Although Preliminary Design Plans have not been generated, a Study Area was submitted to expedite the environmental review process. This Study Area will serve as the Area of Potential Effects (APE) and encompasses about 0.14 acre, inclusive of the existing roadway, ROW, and any other modern development in the immediate vicinity of the crossing.

SUMMARY OF CULTURAL RESOURCES REVIEW***Brief description of review activities, results of review, and conclusions:***

This project was accepted for review on Thursday, February 6, 2025. A compilation of data maintained by the Office of State Archaeology (OSA) was received later that same day. An archaeological survey has never been conducted in the vicinity of Bridge No. 245, and no archaeological sites have been recorded within one (1) mile of the proposed project. Digital copies of HPO's maps (Fruitland Quadrangle) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpoweb/>) were last reviewed on Monday, February 10, 2025. There are no known historic architectural resources located within or adjacent to the APE; therefore, intact and significant archaeological deposits that may be associated with such resources are not anticipated to be found, especially within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or precontact settlement within the project limits, and to assess the level of slope as well as modern, agricultural, hydrological, and other erosive-type disturbances within and surrounding the APE.

(This project falls within a North Carolina County in which the following federally recognized tribes have expressed an interest: 1) Catawba Indian Nation, 2) Cherokee Nation, 3) Eastern Band of Cherokee Indians, 4) United Keetoowah Band of Cherokee Indians, and the 5) Muscogee (Creek) Nation. We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.)

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

This project is listed as being federally funded (FEMA?) and will require a federal permit. As part of the project's submittal, temporary/permanent easements as well as additional ROW may be necessary. Based on the size and shape of the APE, project activities may occur beyond the existing ROW along Locust Grove Road (SR 1528). If there were no Federal nexus for this project, please know that we would be in compliance with NC GS 121-12a since there are no eligible (i.e., National Register-listed) archaeological resources located within the APE that would require our attention.

From an environmental perspective, the APE (as drawn) mostly consists of the footprint where Bridge No. 245 once was and also appears to be limited to the existing ROW. Located within a sparsely settled narrow drainage within the Blue Ridge Mountain physiographic region in the southwestern part of North Carolina, the APE only encompasses about 0.14 acre and consists entirely of one (1) soil series: Codorus loam (arkaqua) (Co), a frequently flooded and somewhat poorly drained soil type. The APE consists of a narrow drainage bordered by steeply sloping topography and recent flooding has severely damaged Bridge No. 245 in the aftermath of Hurricane Helene. Overall, these conditions are considered less than ideal for stratigraphically intact archaeological resources to be present. The preservation of archaeological materials within the project area is considered to be poor.

Overall, the Office of State Archaeology (OSA) has conducted no archaeological reviews for environmental compliance in the vicinity of the proposed project. As a result, no archaeological surveys have been carried out in the general area. The closest project appears to have been a 27-mile-long pipeline replacement project (ER 15-0209), running from Buncombe County through Henderson County into Polk County. Although areas of disturbance, steep landforms, and poorly drained soils were present within the APE for that project, an archaeological survey was recommended and conducted (OSA Bib #7374) based on the presence of historic structures and a previously recorded archaeological site (31HN28) within a corridor traversing ideal landforms with moderate to high archaeological probability. Although fifteen (15) archaeological sites were recorded as a result of this survey, all fifteen (15) resources were deemed not eligible for the NRHP, most of which were either prehistoric lithic isolates or small Native American/Historic artifact scatters.

Within five (5) miles of the proposed project, NCDOT's Archaeology Group has reviewed at least sixteen (16) other transportation-related projects, for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). An archaeological survey was not recommended for a fair number of these projects (7/16), citing overly steep contexts, poor soil conditions, and/or the restrictive/constrained nature of each Study Area or APE [i.e., contained within existing ROW]). Archaeological surveys, however, were recommended for the remaining nine (9) projects based on the presence of either previously recorded archaeological sites/historic resources and/or favorable/undisturbed landforms with ideal soil characteristics within or adjacent to each project's Study Area/APE. Please refer to the following PA projects for more details: 11-01-0004, 11-09-0087, 11-09-0088, 12-07-0062, 12-08-0080, 16-08-0004, 17-03-0004, 21-07-0005, and 24-02-0009. Twenty-one (21) archaeological sites were documented as a result of these surveys, 18 of which were recorded as part of the investigations for the 4.4-mile-long widening of NC 191 (PA 17-03-0004 [TIP# R-2588B]). Three (3) of those eighteen (18) sites were also deemed NRHP-eligible but would not be affected by the proposed undertaking. One site was an extensive Middle Archaic to Early Woodland period habitation site with intact subsurface deposits. The other two sites were historic in nature, turn-of-the-century abutments for the "King's Bridge" on the old route of Haywood Road and the foundation remains for a turn-of-the-century structure. Similar to Bridge No. 112 in Polk County, Bridge No. 245 is also situated at a very narrow chokepoint prior to entering a broader floodplain area, which would be more ideal for historic occupation to occur. Therefore, the very constricted APE (basically limited to the existing ROW) is considered to have a low probability for archaeological resources to be present.

From a topographical perspective, LiDAR imagery does not reveal anything of note in and immediately adjacent to the APE, and unfortunately early maps of Henderson County were drawn at a scale not ideal for determining exact road alignments and configurations. However, some semblance of what may have become Locust Grove Road may be apparent on the 1907 Henderson County Soil Map (**Figure 2**). Oddly enough, what was present in 1907 may not have been considered part of the state-maintained system until the 1950s, since there is no depiction of this section of road in 1938 (**Figure 3**). The large-scale water impoundment for a recreational area for Twin Brooks property owners in the 1950s may have necessitated not only a slight realignment of Locust Grove Road as it crosses Featherstone Creek (i.e., built in 1958) but also a new alignment extension of the road that shortened the distance and time traveled to Locust Grove Baptist Church (**Figure 4**). The only items of note in the District Files are that: 1) in December 1995, this section of Locust Grove Road was presumably resurfaced (Road Inventory Workbooks 1945-2008) and 2) this section of Locust Grove Road was noted as an Unimproved/"Primitive" Road from 1957 to 1972 (Road Inventory Let Maps 1957-2003). With that said, based on the images provided and the damage caused by Hurricane Helene (**Figures 5-6**), the proposed structure will not impact anything that has not already been damaged or destroyed in the aftermath of Hurricane Helene.

Despite some of the information above, there is a low probability for significant prehistoric and/or historic archaeological materials to be present within the APE. Therefore, it is believed that the APE, as depicted, is unlikely to contain intact and significant archaeological resources. No archaeological survey is required for this project. If design plans change or are made available prior to construction, then additional consultation regarding archaeology may be required. At this time, no further archaeological work is recommended. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," including notification of NCDOT's Archaeology Group.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info ☒ Photos ☐ Correspondence
Other:

FINDING BY NCDOT ARCHAEOLOGIST: NO ARCHAEOLOGY SURVEY REQUIRED


NCDOT ARCHAEOLOGIST II

February 10, 2025

Date

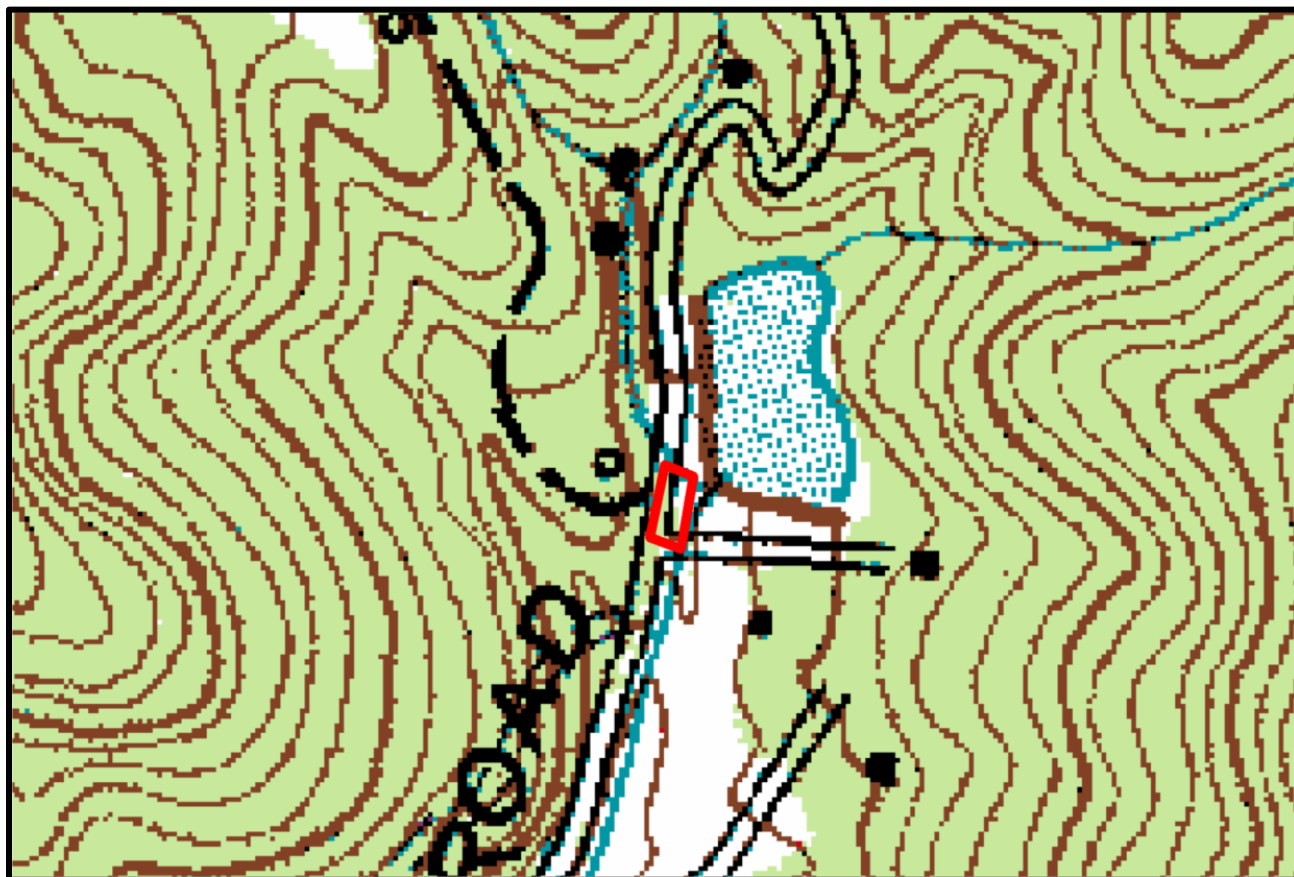


Figure 1: Fruitland, NC (USGS 1997 [2001rev]) [Red = APE].

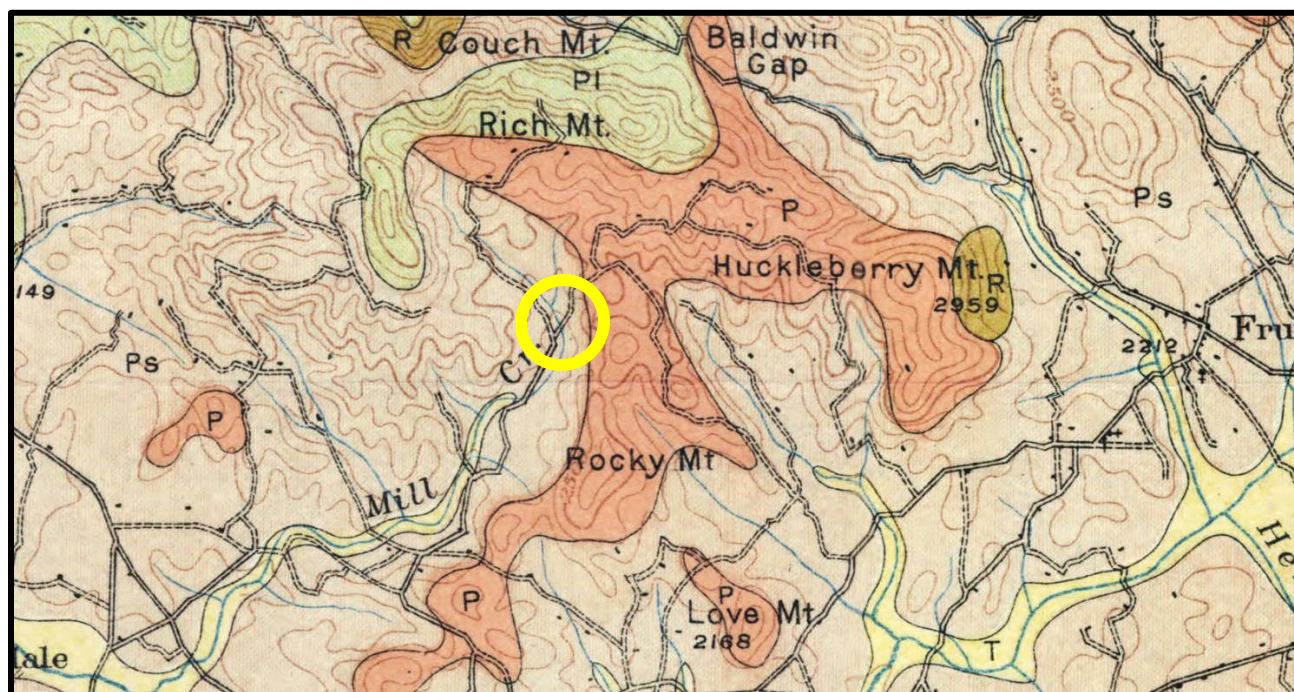


Figure 2: Soil Map, North Carolina, Henderson County Sheet (Hearn and MacNider 1907, available online: <https://dc.lib.unc.edu/cdm/singleitem/collection/ncmaps/id/272/rec/3>, last accessed 10 Feb 2025) [Yellow = Project Area].

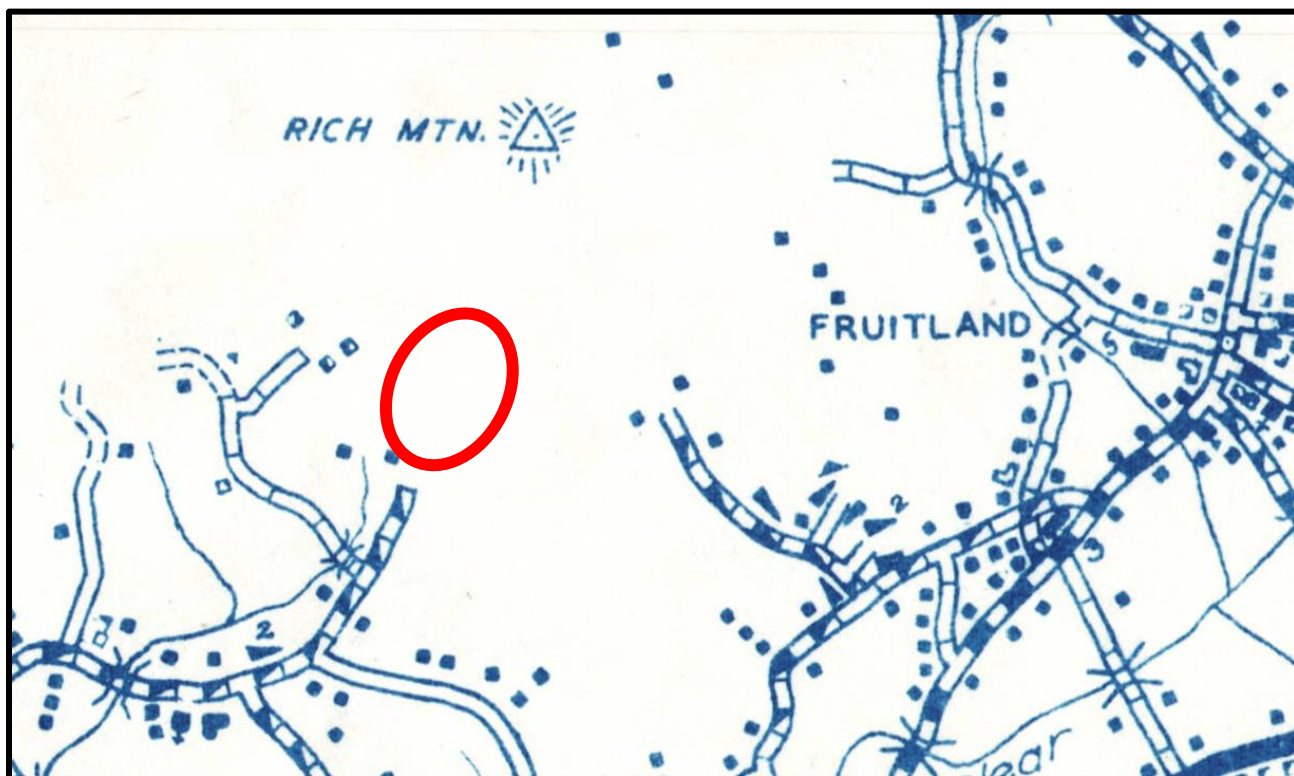


Figure 3: Henderson County, North Carolina (NC State Highway and Public Works Commission 1938, available online: <https://dc.lib.unc.edu/cdm/compoundobject/collection/ncmaps/id/570/rec/10>, last accessed 10 Feb 2025) [Red = Project Area].



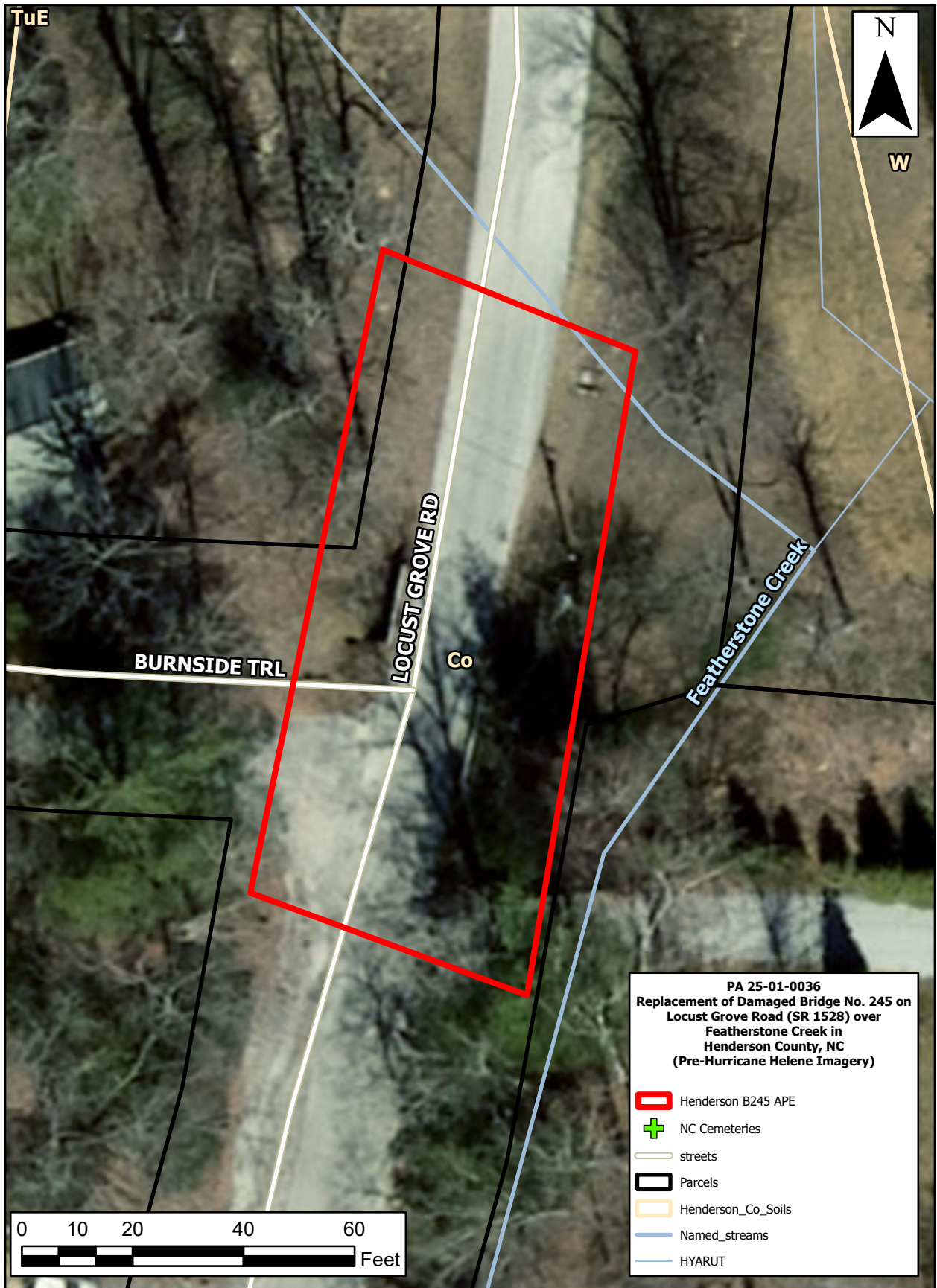
Figure 4: Aerial Imagery, dated 31 Mar 1957 (NCDOT Historical Aerial Imagery Index, accessed 10 Feb 2025) [Red = Project Area].

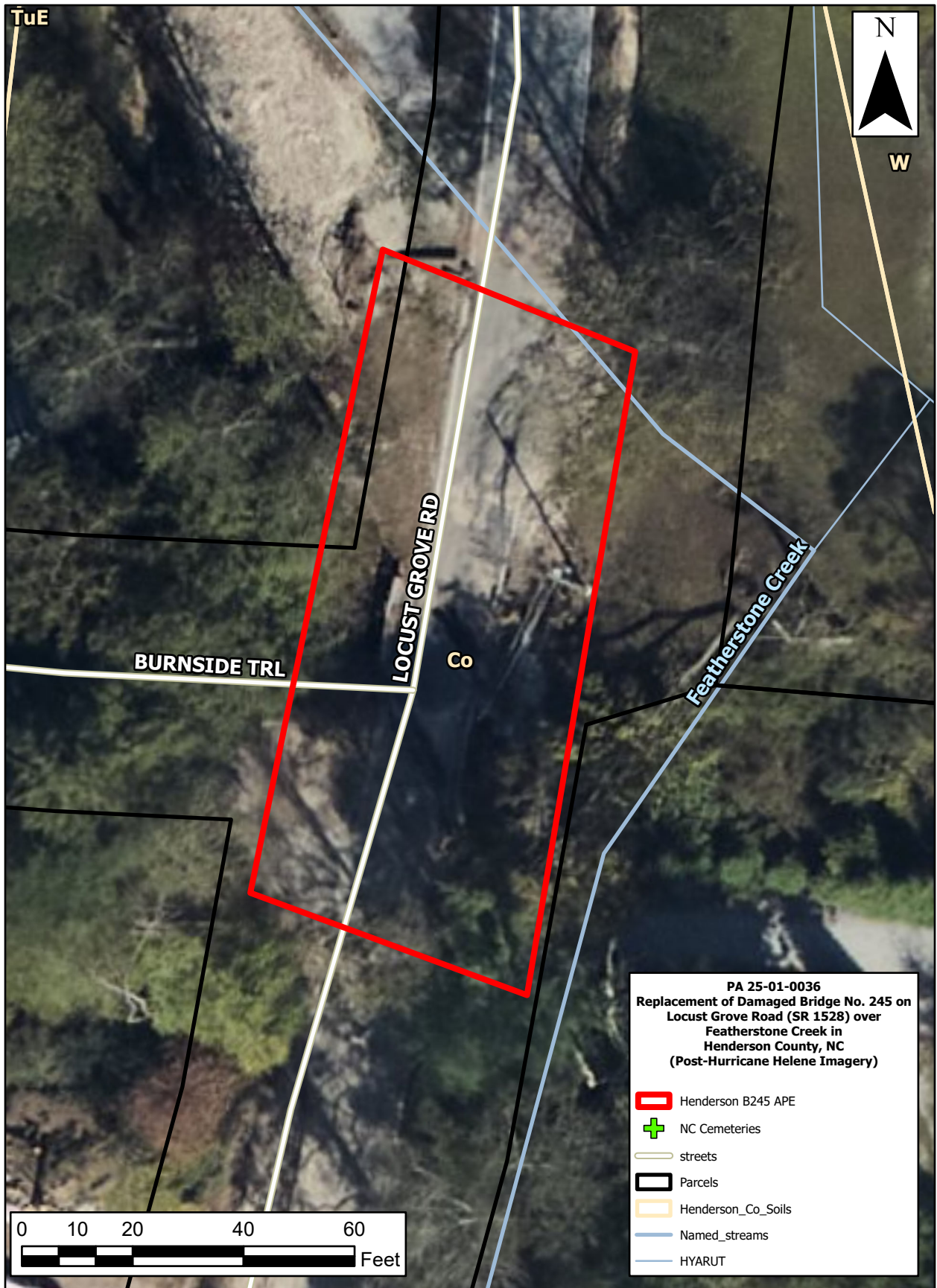


Figure 5: Project Area Conditions post-Hurricane Helene (Drone Image Viewer – 2024 Hurricane Helene, dated 9 Oct 2024).



Figure 6: Project Area Conditions post-Hurricane Helene (Drone Image Viewer – 2024 Hurricane Helene, dated 9 Oct 2024).





From: LeeAnne Wendt <leeannewendt@outlook.com>
Sent: Thursday, February 13, 2025 10:22 AM
To: Lepsic (TranSystems), Robert S; Breedlove, Patrick J
Cc: Section106
Subject: [External] Re: Henderson County Bridge 245 Replacement

Thank you for contacting the Muscogee (Creek) Nation concerning the Proposed Replacement of Bridge 245 in Henderson County, North Carolina. As you are aware, the project is occurring within our Nation's historic area of interest and continues to hold importance to our Tribe. It was noted that FHWA is the lead federal agency and a permit is anticipated under the Section 404 Process with the USACE. The project will include replacing Bridge 245 over the Featherstone Creek on SR-1528 (Locust Grove Road) which was destroyed during Hurricane Helene.

After reviewing the material provided, it has been determined that we believe the project should have a finding of "No Historic Properties Effectuated." However, if artifacts or archaeological features are encountered during project activities, work must cease and our office should be consulted immediately. This can include but are not limited to projectile points, broken pieces of pottery (ceramics) or glass, stone implements, metal fasteners or tools, human remains, etc. Any changes to the approved scope of work for this project will require re-submission to, and evaluation and approval by the Muscogee (Creek) Nation prior to initiation of any work for compliance with Section 106. If you have any questions, please do not hesitate to contact us.

Additionally, please continue to send all 106 correspondence to section106@muscogeenation.com.

Regards,
LeeAnne Wendt

LeeAnne Wendt
Tribal Archaeologist
Department of Culture and Humanities
The Muscogee (Creek) Nation
(205)646-1777
leeannewendt@outlook.com

From: Section106 <Section106@muscogeenation.com>
Sent: Wednesday, February 12, 2025 1:18 PM
To: LeeAnne Wendt <leeannewendt@outlook.com>
Subject: Fw: Henderson County Bridge 245 Replacement

From: Lepsic (TranSystems), Robert S <ext-rsleptic@ncdot.gov>

Sent: Wednesday, February 12, 2025 7:56 AM

To: Section106 <section106@muscogeenation.com>; rcain@ukb-nsn.gov <rcain@ukb-nsn.gov>; russtown@ebci-nsn.gov <russtown@ebci-nsn.gov>; elizabeth-toombs@cherokee.org <elizabeth-toombs@cherokee.org>

Cc: Breedlove, Patrick J <pjbreedlove@ncdot.gov>; Wilkerson, Matt T <mtwilkerson@ncdot.gov>

Subject: Henderson County Bridge 245 Replacement

Good Morning Tribal Nations,

NCDOT Division 14 is proposing to replace Bridge 245 in Henderson County, North Carolina. The bridge was destroyed during Hurricane Helene. Enclosed is the project tribal consultation letter. We request that any comments be submitted by March 14, 2025, for the scoping of the project.

Please let the division know if you have any questions.

Regards,

Bob

Robert Lepsic, PWS

Embedded Environmental Specialist

NCDOT Highway Division 14

253 Webster Rd

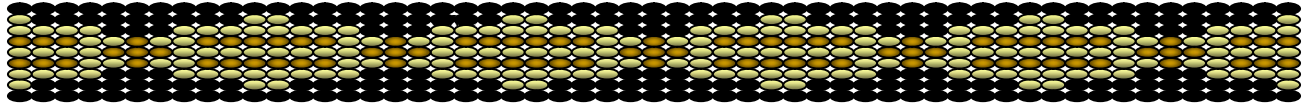
Sylva, NC 28779

C: (919) 810-7883



Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791



February 25, 2025

Attention: Patrick Breedlove
NC Department of Transportation
345 Toot Hollow Road
Bryson City, NC 28713

Re. THPO #	TCNS #	Project Description
2025-193-104		DF18314.2045335 – Replacement of Bridge 245 Henderson County

Dear Mr. Breedlove,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer

NEPA Document

Type I or II Categorical Exclusion Action Classification Form

STIP Project No.	Bridge 440245, Div 14, Henderson County
WBS Element	DF18314.2045335
Federal Project No.	Federal Aid Number

A. Project Description:

The North Carolina Department of Transportation (NCDOT) intends to replace Bridge 440245 over Featherstone Creek on Locust Grove Road in Henderson County, North Carolina (Division 14). See vicinity map.

B. Description of Need and Purpose:

The Purpose of the project is to replace a structure damaged by floodwaters associated with Tropical Storm Helene which made landfall in Florida on September 26, 2024. The 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 between November 2024 and May 2025. 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. 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](#)). If additional right-of-way is needed, the NCDOT Project Manager should coordinate completion of the Preliminary Screening of Farmland Conversion Impacts and if warranted, submission of the NRCS farmland conversion form to NRCS for further evaluation.

A description of the project with vicinity map were sent to the Muscogee (Creek) Nation, Cherokee Nation, United Keetoowah Band of Cherokee Indians, Eastern Band of Cherokee Indians, and Catawba Indian Nation in February 2025. the Muscogee (Creek) Nation responded that they do not have immediate concerns with the project but requested to be notified if artifacts or archaeological features are discovered during construction. The Catawba Nation responded that they do not have immediate concerns with the project but requested to be notified if Native American artifacts and/or human remains are located during construction. At this time no other responses have been received.

NCDOT conducted a review of the potential cultural resources present within the study area boundary in February 2025. No historic architecture was found and a “no survey required” determination was made ([see project site](#)). A review of potential archeological resources also determined “no survey required” ([see project site](#)).

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was reviewed between April and May 2025. 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	<i>Myotis grisescens</i>	Endangered	No Effect	No
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered	No Effect	No
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed Endangered	No Effect	No
Small whorled pogonia	<i>Isotria medeoloides</i>	Threatened	No Effect	No
White irisette	<i>Sisyrinchium dichotomum</i>	Endangered	No Effect	No
Monarch butterfly	<i>Danaus plexippus</i>	Proposed Threatened	N/A	Unknown
Eastern hellbender	<i>Cryptobranchus alleganiensis</i>	Proposed Endangered	N/A	Unknown

A “Batched Format Consultation” was completed by NCDOT Biological Surveys Group in April 2025 to address multiple crossing structures damaged by Tropical Storm Helene in Haywood, Henderson, Polk, and Transylvania Counties. The USFWS confirmed the biological conclusions for listed species in May 2025 ([see project site](#)) by issuing either a Biological Opinion, Conference Opinion or Informal Concurrence.

The Monarch Butterfly was proposed for federal listing under the Endangered Species Act (ESA) in December 2024. However, no regulatory protections will take effect until the listing is finalized, which is anticipated in late 2025 or early 2026. Until that time, proposed species do not receive formal ESA protections. However, federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Federal action agencies may initiate consultation with USFWS to obtain a conference opinion. If and when the listing is finalized, and at the agency’s request, the Service may adopt the conference opinion as a biological opinion—provided no relevant new information has emerged and no substantial changes to the proposed action have occurred.

The Eastern Hellbender was proposed for federal listing under the ESA in December 2024. However, no regulatory protections will take effect until the listing is finalized, which is anticipated in late 2025 or early 2026. Until that time, proposed species do not receive formal ESA protections. However, federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Federal action agencies may initiate consultation with USFWS to obtain a conference opinion. If and when the listing is finalized, and at the agency's request, the Service may adopt the conference opinion as a biological opinion—provided no relevant new information has emerged and no substantial changes to the proposed action have occurred.

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)			
For 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, 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. • If any question 1-7 is checked “Yes” then NCDOT certification for FHWA approval is required. • If any question 1-30 is checked “Yes” then additional information will be required for those questions in Section G. <i>Source documents should be cited for each question as appropriate. If no source is needed or available, denote as “n/a”. Please note that some “no” answers should have a corresponding email/memo/report cited for that NCDOT discipline. Project reports or memos/emails should be linked to their location on the project’s Precon site; other publications (e.g. the STIP) can be linked directly. Example: (Source: NCDOT HE-0001 NRTR [HE-0001 NRTR.pdf, 2022])</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) or National Marine Fisheries Service (NMFS) in which a “likely to adversely affect determination” has been made? (Source: NCDOT “Batched Format Consultation” with FWS, 2025)	☐	☒
2	Does the project result in effects subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)? (Source: NCDOT BSG Review, 2024)	☐	☒
3	Does the project generate substantial controversy or public opposition, regarding human and/or natural environment concerns, following appropriate public involvement? (Source: DIST, December 2025)	☐	☒
4		☐	☐
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition? (Source: Design Recommendation Plan set, Jan. 2025)	☐	☒
6	Does the project require an Individual Section 4(f) approval? (Source: EPU GIS Screening, 2025)	☐	☒
7	Does the project result in adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or result in an adverse effect on a National Historic Landmark (NHL)? (Source: NCDOT Cultural Resources review, 2025)	☐	☒
<u>Other Considerations</u>		Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or resolved utilizing a Section 7 programmatic agreement? Include in Section G any utilization of a Section 7 Programmatic Agreement. (Source: NCDOT BSG Review, 2025)	☐	☒
9	Is the project located in anadromous fish spawning waters? (Source: EPU GIS Screening, 2025)	☐	☒
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)? (Source: EPU GIS Screening, 2025)	☐	☒
11	Does the project impact waters of the United States in any of the designated mountain trout streams? (Source: EPU GIS Screening, 2025)	☐	☒
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit? (Source: EPU GIS Screening, 2025)	☐	☒

13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility? (Source: EPU GIS Screening, 2025)	☐	☒
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects findings other than a No Effect, including archaeological remains? No matter the effect finding, list any commitments (conditions) in Section I made in association with the effect finding detailed in Section G. (Source: NCDOT Cultural Resources review, 2025)	☐	☒
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.? (Source: Design Recommendation Plan set, 2025)	☐	☒
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? (Source: Design Recommendation Plan set, 2025)	☐	☒
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)? (Source: EPU GIS Screening, 2025)	☐	☒
18	Does the project require a U.S. Coast Guard (USCG) permit? (Source: EPU GIS Screening, 2025)	☐	☒
19	Does the project involve Coastal Barrier Resources Act (CBRA) resources? (Source: EPU GIS Screening, 2025)	☐	☒
20	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River? (Source: EPU GIS Screening, 2025)	☐	☒
21	Does the project impact federal lands (e.g., U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands? (Source: EPU GIS Screening, 2025)	☐	☒
22	Does the project involve any changes in access control to the interstate (modification or construction of an interchange)? (Source: Design Recommendation Plan set, 2025)	☐	☒
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness? (Source: DIST, 2025)	☐	☒
24	Will maintenance of traffic or detours cause substantial disruption? (Source: Design Recommendation Plan set, 2025)	☐	☒
25	Is the project inconsistent with the NCDOT's federally approved 4-year STIP or NCDOT's BMIP, and where applicable, the Metropolitan Planning Organization's (MPO) Transportation Improvement Program (TIP)? (Source: Emergency Response project, not in STIP)	☒	☐
26	Does the project require the acquisition of lands under the protection of the Land and Water Conservation Fund, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, Dedicated Nature Preserves, 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? (Source: ATLAS Screening, 2025)	☐	☒
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)? (Source: ATLAS Screening, 2025)	☐	☒
28	Does the project "use" Section 4(f) property, and/or result in a <i>de minimis</i> determination? (Source: DIST, 2025)	☐	☒
29	Is the project considered a Type I under the NCDOT Noise Policy? (Source: NA-replace-in-kind)	☐	☒
30	Does the project impact VAD-enrolled property, or prime or important farmland soil, as defined by the Farmland Protection Policy Act (FPPA)? (Source: DIST, 2025)	☐	☒

G. Additional documentation as required from Section F; documentation should address the context and intensity (or severity) of the impact. (Required for all questions marked 'Yes.')

1. A "Batched Format Consultation" was completed by NCDOT Biological Surveys Group in April 2025 to address multiple crossing structures damaged by Tropical Storm Helene in Haywood, Henderson, Polk, and Transylvania Counties. The USFWS confirmed the biological conclusions for listed species in May 2025 ([see project site](#)) by issuing either a Biological Opinion, Conference Opinion or Informal Concurrence.

25. This project is an emergency relief project due to Tropical Storm 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. Categorical Exclusion Approval:

STIP Project No.	Bridge 440245, Div 14, Henderson County
WBS Element	DF18314.2045335
Federal Project No.	Federal Aid Number

Prepared By:

<u>8/7/2025</u> Date	 Christine Farrell, NEPA Program Consultant Environmental Policy Unit, NCDOT
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Prepared For: NCDOT Division 14

Reviewed By:

<u>8/14/2025</u> Date	 Marissa Cox, Western Regional Team Lead North Carolina Department of Transportation
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Approved

- If NO grey boxes are checked in Section F, NCDOT approves the Type I or Type II Categorical Exclusion.



Certified

- If ANY grey boxes are checked in Section F, NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.

<u>8/14/2025</u> Date	 John Jamison, Environmental Policy Unit Manager North Carolina Department of Transportation
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FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

<u> </u> Date	for <u>Yolonda K. Jordan, Division Administrator</u> Federal Highway Administration
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Note: Prior to ROW or Construction authorization, a [consultation](#) may be required (please see Section VIII of the NCDOT-FHWA CE Programmatic Agreement for more details). Upload final documentation to ATLAS workbench and add commitments to the green sheet and Commitments dashboard.

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

NCDOT PROJECT COMMITMENTS

WBS/DF DF18314.2045335
Replace bridge 440245 over Featherstone Creek on Locust Grove Road
Henderson County
Federal Aid Project No. **Federal Aid Number**

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Monarch Butterfly

The Monarch Butterfly was proposed for federal listing under the Endangered Species Act (ESA) in December 2024. However, no regulatory protections will take effect until the listing is finalized, which is anticipated in late 2025 or early 2026. Until that time, proposed species do not receive formal ESA protections. However, federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Federal action agencies may initiate consultation with USFWS to obtain a conference opinion. If and when the listing is finalized, and at the agency's request, the Service may adopt the conference opinion as a biological opinion—provided no relevant new information has emerged and no substantial changes to the proposed action have occurred.

Eastern Hellbender

The Eastern Hellbender was proposed for federal listing under the ESA in December 2024. However, no regulatory protections will take effect until the listing is finalized, which is anticipated in late 2025 or early 2026. Until that time, proposed species do not receive formal ESA protections. However, federal action agencies are still required to ensure that their actions do not jeopardize the continued existence of the species. Federal action agencies may initiate consultation with USFWS to obtain a conference opinion. If and when the listing is finalized, and at the agency's request, the Service may adopt the conference opinion as a biological opinion—provided no relevant new information has emerged and no substantial changes to the proposed action have occurred.

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

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