



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

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SECRETARY

August 3, 2026

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

NC Division of Water Resources
Transportation Permitting Branch

ATTN: Ms. Lori Beckwith
NCDOT Coordinator

Ms. Amy Annino
NCDOT Coordinator

Subject: **Request for Permit Modification of Section 404 Individual Permit, Section 10, and 401 Individual Water Quality Certification** for the proposed I-26 Asheville Connector, From I-40 east of SR 1224, to US 19/23 near the Broadway St Interchange; Federal Aid Project No. NHF26-1(53), Division 13. TIP No. I-2513. WBS 34165.1.2.

Reference SAW-2004-9986803, Individual Permit Modification dated July 17, 2026
DWR #20231008v4, Individual Water Quality Certification dated May 20, 2026.

Dear Madams:

The North Carolina Department of Transportation (NCDOT) is in receipt of the Individual Permit Modification dated July 17, 2006, with Condition (#2**) indicating:

***NCDOT is currently revising the Riverbank Monitoring Plan. Until that plan is approved by the Corps, N.C. Division of Water Resources, U.S. Fish and Wildlife Service, and N.C. Wildlife Resources Commission, is finalized by NCDOT, is sent to the Corps, and the Corps acknowledges receipt in writing, no in-water work is authorized to occur in the French Broad River in the area where the temporary causeways and trestle bridge will be constructed.*

and Individual Water Quality Certification dated May 20, 2026, with Condition 7 indicating:

Prior to commencing project activities to construct temporary impacts at Site 7, which include the temporary bridge and temporary causeway in the French Broad River (Station 73+39 to Station 77+07) the NC Department of Transportation will develop and acceptable Riverbank Monitoring Plan (Plan). The Plan will include the following components:

- (1) establishing the reach(es) along the French Broad River in which to monitor riverbanks for stability,*
- (2) monitoring methods,*
- (3) monitoring frequency,*
- (4) monitoring duration, and*
- (5) a plan of action should monitoring identify bank erosion. No work to begin construction of the temporary impacts at Site 7 (Station 73+39 to Station 77+07) shall commence until an acceptable Plan has been submitted to and approved by the NC Division of Water Resources.*

This request serves as the transmittal of the revised Riverbank Monitoring Plan, request for approval of the plan from the aforementioned agencies, and request that once approval is obtained, the US Army Corps of Engineers modify Condition 2, and NC Division of Water Resources modify Condition 7 to allow construction in the French Broad River in the area where the temporary causeways and trestle bridge will be constructed, pursuant to all plans and commitments.

Sincerely,

 Digitally
signed by
Michael
Turchy

Michael Turchy
ECAP Group Leader, NCDOT Environmental Analysis Unit

Monitoring Plan

This proposed monitoring plan will provide a comprehensive characterization of stability within the hydraulic zone of influence of the French Broad River in connection with the NCDOT I-26 Connector Project bridge construction.

The activities and reporting proposed herein will be used to track any changes in streambank stability using both quantitative and qualitative methods.

Construction Activities

The project includes construction of 3 bridge crossings over the French Broad River. Bridge construction activities will include installation of construction access locations, temporary causeways, temporary trestle bridge, and the installation of bridge support structures. The temporary causeways and bridge are proposed to be installed within the active channel and floodplain and will likely be the most influential activities to hydraulic and streambank conditions. These structures will partially constrict the active flow area of the French Broad River and may result in higher flow velocities, periodic flow realignment, and increased water surface elevation upstream of the structures due to the backwater effect.

Impacts associated with the causeways and bridge are expected to be temporary and limited to the active construction period. Following removal of these structures, hydraulic conditions within the project area are expected to return substantially to pre-construction conditions. Post-construction monitoring will be used to demonstrate that temporary construction impacts do not result in streambank instability.

Monitoring Strategy

Monitoring will consist of visual streambank stability indices, photographic documentation and surveyed bank profiles to evaluate changes within the monitoring reaches. The monitoring areas will be accessed using a combination of vehicle and pedestrian access along the east and west banks as can be accommodated by local and construction access and by small watercraft where access is limited due to construction phasing or terrain limitations.

Monitoring Locations

Monitoring will be conducted within four specific reaches along the French Broad River. The reach breakouts are defined in Table 1 and can be seen in Figure 1.

Monitoring reaches have been selected to provide representative coverage of both reference bank conditions and areas within the zone of hydraulic influence. Areas of influence were determined by reviewing the proposed water surface and velocities in the proposed conditions hydraulic modeling. Upstream hydraulic influence of the temporary construction means and methods continue into Reach 1, with the upstream extents of Reach 1 representing minimally-

influenced reference conditions. Likewise, downstream effects continue into Reach 4 with the downstream-most extents representing a minimally influenced condition.

Table 1. Reach Extents

Reach	Extents
Reach 1	From the Haywood Rd. Bridge to the Patton Ave. (HWY 240) Bridge
Reach 2	From the Patton Ave. (HWY 240) Bridge to the proposed temporary causeway and bridge construction area
Reach 3	The proposed temporary causeway and bridge construction area
Reach 4	From the proposed temporary causeway and bridge construction area extending downstream approximately 1,400 feet

Bank Stability Visual Assessment

Visual assessment of bank stability shall be performed utilizing the Bank Stability scoring portion of the Stream Visual Assessment Protocol (SVAP) (NRCS National Technical Note 99-1, 1998). This shall be completed along each individual bank, within each monitoring reach.

Table 2. Bank Stability Scoring (NRCS National Technical Note 99-1, 1998).

Banks are stable	Moderately stable	Moderately unstable	Unstable
Banks are low (at elevation of active flood plain); 33% or more of eroding surface area of banks in outside bends is protected by roots that extend to the baseflow elevation.	Banks are low (at elevation of active flood plain); less than 33% of eroding surface area of banks in outside bends is protected by roots that extend to the baseflow elevation.	Banks may be low, but typically are high (flooding occurs 1 year out of 5 or less frequently); outside bends are actively eroding (overhanging vegetation at top of bank, some mature trees falling into stream annually, some slope failures apparent).	Banks may be low, but typically are high; some straight reaches and inside edges of bends are actively eroding as well as outside bends (overhanging vegetation at top of bank, bare bank, numerous mature trees falling into stream annually, numerous slope failures apparent).
10	7	3	1

Photo Documentation

Permanent photo monitoring locations will be established within each monitoring reach. These shall be set at a frequency, resolution, and orientation to ensure the entire bank length is documented and should be georeferenced to allow direct comparison of bank conditions over time. Photographic documentation will include visual cataloguing for scour indicators, including new or

expanding scour holes, exposed or undermined bank toe material, loss of bed material adjacent to bridge elements, bank retreat near the bridge crossing or other instances of bank instability. Photos will be collected when establishing baseline and according to the monitoring schedule. Photos and the final location of photo point locations will be included with the monitoring reports, or as requested.

Bank Profile Surveys

Full channel cross-sections are not proposed in this monitoring plan due to the vertically constrained condition of the French Broad River as documented by the project's geotechnical investigations. Unlike full channel cross sections, monitoring bank profiles will focus solely on the bank face and adjacent floodplain or toe regions and are intended to document changes in bank profile geometry. This plan will capture the risk associated with the non-deformable bed surface and increase in the potential lateral bank scour or scour at constrictions. Permanent bank profile monitoring locations along the streambank will be established within each of the monitoring reaches as part of the first monitoring mobilization. A minimum of 8 bank profiles on each bank (Total 16) will be established in the monitoring area (Reaches 1-4). Additional bank profile monitoring locations may be added in areas where the qualitative assessments identify changes in stability.

Figure 1 provides an overview of the proposed monitoring reaches as well as examples of potential monitoring locations throughout Reaches 1-4. Reach 1 extends a considerable distance upstream of the proposed activity as flow constriction is expected to cause a 'stacking' effect increasing water levels for the duration of in-stream construction activity. Most of the bank profile monitoring locations are proposed adjacent to or immediately upstream and downstream of the causeways. These areas are anticipated to experience increased shear stress and have higher potential for instability to occur. Final monitoring locations will be determined in the field subject to site access, safety considerations, landowner coordination, construction phasing, and constraints included in this section.

The Reach 2 bank profile monitoring locations will be placed beginning no more than 200 yards upstream of the causeway.

Reach 4 bank profile monitoring locations will be placed beginning no more than 200 yards from the upstream terminus of the Reach.

Reach 3 encompasses the temporary causeway and bridge construction area. Due to active construction within this reach, bank profile monitoring locations may be subject to disturbance, burial, relocation, or re-establishment over the course of the monitoring period. Such changes may result from activities including, but not limited to, riprap placement and removal, installation and removal of temporary access features, and construction phasing.

As a result, fixed bank profile locations within Reach 3 may not remain continuously usable or directly comparable throughout active construction. Where monitoring points are impacted, profiles will be re-established in the vicinity of the original locations to the extent practicable, and any adjustments will be documented to maintain continuity of monitoring data.

Baseline conditions in Reach 3 will be photographed and documented prior to disturbance where feasible. Where field establishment of baseline conditions is constrained by construction sequencing, available baseline survey data (e.g., post-Helene LiDAR, or pre-construction surveys con-

ducted prior to riprap placement or other disturbance) will be used, as available. Confirmation of the availability and applicability of such baseline survey data will be conducted as identified during project coordination.

In addition, one pair of bank profiles will be established at the upstream and downstream extents of Reach 1 and Reach 4, respectively, to evaluate reference conditions outside of the primary construction influence area. Placement of these reference profiles will be subject to site access, safety considerations, and best professional judgment. Final bank profile survey locations will be documented in a base-line monitoring report and provided to the permitting agencies following the schedule noted in the 'Reporting' section below.

Data will be collected utilizing United States Forest Service guidance for Stream Channel Reference Sites (Harrelson et al, 1994). Surveys shall document the bank profile from a designated non-erodible benchmark, at or above the top of bank point, to a location at or past the channel toe. Benchmarks (observed and marked or installed) will be spatially located using North Carolina State Plane Coordinate System to allow repeatable measurements over the duration of the monitoring period. Data collection methods will consist of rod and level survey data collection and processing will be conducted using Microsoft Excel, to provide bank profile graphs.

Monitoring Frequency

This monitoring plan proposes monitoring this area during construction and 1 year post-construction. Below is a table defining monitoring activity and frequency during each phase of this project.

Table 3. Monitoring Activity and Frequency

Project Phase	Monitoring Activity	Reach	Frequency	Time to Initiate Field Response	Time to Submit Monitoring Report
Pre-Construction	Bank Stability Assessment	All Reaches	Baseline	N/A	30 days after field work completion
	Photo Documentation				
	Bank Profile Surveys				
During Construction (While Flow is Restricted)	Bank Stability Assessment	All Reaches	Quarterly	N/A	30 days after field work completion
	Photo Documentation				
	Bank Profile Surveys				
During Construction	Bank Stability Assessment	All Reaches	Quarterly	N/A	30 days after field work completion
	Photo Documentation				
	Bank Profile Surveys				
Post-Construction	Bank Stability Assessment	All Reaches	Biannual	30 days after construction completion	30 days after field work completion
	Photo Documentation				
	Bank Profile Surveys				
Major Storm During Construction (Moderate Flood Event)	Bank Stability Assessment	All Reaches	As Needed	10 business days	30 days after field work completion
	Photo Documentation				
	Bank Profile Surveys	As Needed (Based on Visual Assessment)			

Note: A Moderate Flooding Event is based on NOAA's National Water Prediction Service utilizing USGS Gage Station – 03451500, located on the French Broad River at Pearson Bridge, and is defined as an event large enough to begin to impact industrial and commercial buildings adjacent to this area. This is the closest gage station from the proposed construction activities, approximately 4,700 feet downstream, and this event results in a stage of 13ft (water surface elevation of 1962.93 NAVD88) and a discharge of 34,691cfs. This flooding event falls between the 10% and 2% annual exceedance probability discharges as presented in the Flood Insurance Study for Buncombe County (FEMA, 2010). Real time stage and discharge for this gage (USGS Gage Station – 03451500) can be monitored through this website:

<https://water.noaa.gov/gauges/03451500>

Pre-construction

Pre-construction monitoring shall be completed prior to initiation of any in-stream or near-stream construction activities. The purpose of the pre-construction monitoring effort is to establish baseline streambank conditions for comparison with conditions observed during and after construction. Pre-construction monitoring shall include the location establishment and collection of the bank profile surveys, and stability Index assessments of the existing bank conditions.

During Construction

Monitoring during construction activities shall be conducted to evaluate streambank response to active construction operations and shall include stability index assessments and bank profile surveys at the established monitoring locations. Routine inspections shall be performed throughout active construction periods, with additional inspections conducted following significant rainfall or high-flow events. The frequency of monitoring during construction will vary based on type of construction, with or without restricted flow, and if a moderate flooding event occurs, as described in the schedule above. The during construction monitoring proposed is based on a projected schedule of 29 months of in-water construction.

Post-construction

Post-construction monitoring shall be conducted within 30 days of completion of in-stream and near-stream construction activities to evaluate streambank stability and shall include stability index assessments and bank profile surveys at the established monitoring locations. Post-construction monitoring is proposed for a period of one year, consisting of two monitoring events. The second monitoring event will occur no less than four months after the first post-construction monitoring event. In the event streambank conditions are determined to be stable, the level of required monitoring activities may be decreased, at the discretion of the permitting agencies. If post-construction monitoring identifies instability or erosion, additional corrective actions and continued monitoring may be implemented as necessary to ensure long-term streambank stability.

Any changes to this proposed monitoring plan require coordination with all applicable agencies and stakeholders prior to implementation.

Adaptive Management

This monitoring plan is intended to support adaptive management throughout project construction and post-construction phases. Monitoring results shall be reviewed regularly to identify developing instability trends and implement corrective measures where necessary. If substantial instability from the proposed activity is observed, adaptive management may be initiated. A table providing example adaptive management triggering events and potential actions has been provided for reference in Table 4 below.

Table 4. Level of Instability and Potential Recommended Actions

Level of Instability	Indicators of Instability	Recommended Actions
Minor Instability	• Minor surficial erosion, isolated bare soil exposure • Minor vegetation disturbance	• Document changes with additional photographs • Utilize re-vegetation erosion control measures such as supplemental seeding, live staking, or other vegetation establishment
Moderate Instability	• Measurable bank retreat, active toe scour, increased undercutting • Expansion of prior erosion features	• Increase monitoring frequency and document changes with additional photographs • Add bank profile monitoring location if none are adjacent • Install supplemental stabilization measures such as coir matting, live staking, toe protection, erosion control blankets, or grading repairs if issue persists
Substantial Instability	• Active bank failure, mass wasting, substantial undercutting, rapid bank retreat • Loss of installed stabilization measures	• Notify applicable project management and regulatory personnel • Conduct immediate site assessment • Implement engineered stabilization measures based on site assessment findings such as toe protection, slope stabilization, and grading repairs • Increase monitoring frequency and document changes with additional photographs • Initiate immediate corrective action and continuous monitoring for any area(s) of substantial instability that are greater than 50 linear feet along the stream-bank. • Add or expand bank profile monitoring area if necessary • Repair failed BMPs, modify construction activities contributing to instability, and restore affected areas

Severe / Critical In- stability	• Major bank collapse, progressive slope failure • Substantial sediment input to river • Scour conditions threatening project infrastructure	• Notify applicable project management and regulatory personnel • Initiate immediate corrective action and continuous monitoring until stabilized • Suspend or modify contributing construction activities • Implement emergency stabilization measures such as reinforced toe protection, structural stabilization, slope reconstruction, or additional hydraulic controls
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The adaptive management process is intended to provide a flexible framework that allows the project team to respond to observed field conditions in a timely manner while minimizing long-term impacts to the French Broad River corridor and maintaining compliance with applicable environmental commitments and permit conditions.

Reporting

Monitoring results shall be documented throughout the construction and post-construction phases of the project and compiled into summary monitoring reports. The purpose of the reporting process is to document streambank conditions over time, identify any observed changes or instability, and provide a record of compliance with applicable environmental commitments and permit requirements. Reports will be provided 30 days after completion of monitoring events and posted to the NCDOT Monitoring & Stewardship website.

