

**U.S Department of the Interior
National Park Service, Southeast Region**

FINDING OF NO SIGNIFICANT IMPACT

**BLRI 2D17 and BLRI 2A16
Ashe and Alleghany Counties, North Carolina**

INTRODUCTION

The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), has prepared this Finding of No Significant Impact (FONSI) for the *Blue Ridge Parkway (BLRI) 2D17 and BLRI 2A16 Environmental Assessment* (May 2019). The project proposes to replace/rehabilitate the following four bridges:

- BLRI 2D17 (Ashe County)
 - Laurel Fork Bridge, Structure 5140-159P, Mile Post 248.9

- BLRI 2A16 (Alleghany County)
 - Big Pine Creek Bridge #3, Structure 5140-077P, Mile Post 223.8
 - Big Pine Creek Bridge #6, Structure 5140-080P, Mile Post 224.7
 - Brush Creek Bridge #1, Structure 5140-081P, Mile Post 227.5

Currently, the four bridges are structurally deficient and no longer meet current safety standards. Bridge condition assessments performed in 2015 by the FHWA resulted in a recommendation to replace or rehabilitate the 2A16 and 2D17 bridges due to their overall poor condition, while a 2017 assessment identified severe cracking on the Laurel Fork Bridge which would result in complete closure if repairs or replacement are not implemented in the next five years.

This project is needed to replace/rehabilitate four BLRI bridges deemed structurally deficient and to improve safety by replacing substandard height railings according to current roadway design standards. The four bridges are contributing resources to the proposed BLRI Historic District National Historic Landmark (NHL) nomination currently under development by NPS. The project proposes bridge replacement/rehabilitation along the existing BLRI alignment that, to the extent practicable, maintains the historic character of the bridges. The replacement/rehabilitation of the four bridges would result in an adverse effect to cultural resources associated with the BLRI.

The NPS and FHWA cooperatively prepared an Environmental Assessment (EA) that evaluated the no action alternative and the proposed action alternative. The EA analyzed the potential impacts that would result from the implementation of these alternatives on the natural, cultural, and human environment. The EA was prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA) (42 USC 4321 *et seq.*), its implementing regulations by the Council on Environmental Quality (40 CFR 1500-1508); and with NPS Director's Order #12: *Conservation Planning, Environmental Impact Analysis, and Decision-Making* (2011) and accompanying Handbook (2015).

During the preparation of the EA, the NPS consulted with federal and state agencies, tribes, interested and affected parties, and the general public. The EA was made available for a 30-day public comment period from May 1, 2019 through May 31, 2019.

Attached to this FONSI are the errata and summary of the comments received on the EA with responses (Appendix B). Six comments were received during the public comment period for the EA. The comments were not substantive, and no changes were made to the EA as a result of the comments.

SELECTED ACTION

The NPS has selected the Proposed Action Alternative, which would replace/rehabilitate all four bridges along their current alignment. The proposed design for all four bridges would preserve the original BLRI alignment and vistas to the maximum extent practicable. All work is expected to take place within the existing NPS right-of-way, although the detours and construction access would extend onto public roads outside the park boundaries.

BLRI Project 2A16: Big Pine Creek Bridges #3 and #6, Brush Creek Bridge #1

All three bridges would be replaced along their current alignments and designed to emulate the original rustic style. Their superstructures (deck and rails) would be replaced, a new asphalt surface course installed, new abutments constructed behind the existing abutments with partial preservation of the existing stone masonry abutments and repointing of the existing stone veneer. Existing, original stone would be reused to the maximum extent practicable. Existing wood rails and concrete posts would be replaced with timber guardrails and brown steel I-beam posts to replicate the existing rails as closely as crashworthy design would allow.

At Big Pine Creek Bridge #3, both existing bridge piers would be removed, and a new pier would be constructed in the middle of the bridge in order to increase the hydrologic opening.

At Big Pine Creek Bridge #6, the new pier would be placed in the same location as the existing pier.

At Brush Creek Bridge #1, the existing pier would be cut shorter and kept in place for aesthetics; it would no longer be a structural element. Riprap would be installed to prevent scour and to protect the structural integrity of the bridge including the historic pier. Brush Creek Bridge #1's design would also incorporate a wildlife crossing under the bridge along the left bank.

BLRI Project 2D17: Laurel Fork Bridge

For the 2D17 bridge, the project would be a complete replacement of the bridge. The proposed design would replicate the existing design as closely as possible. The new piers would be designed and constructed in the same architectural style with similar materials and color. Stone veneer from the existing abutments would be removed and used to create a similar stone veneer for the new abutments, ditch, and stonewall to the maximum extent practicable. Otherwise, new Elberton granite veneer would be used on the abutments, parapets, guardwalls, and paved waterways to replicate the current veneer as closely as possible. Existing stone would be stockpiled and used for another future project, where applicable. Existing concrete rails would be replaced to replicate the existing rails as closely as crashworthy design would allow.

FINDING OF NO SIGNIFICANT IMPACT

As described in the EA, the selected action has the potential for adverse impacts on vegetation; hydrology and water quality; wetlands; rare, threatened, endangered, and special status species; cultural resources; and visitor use. No potential for significant adverse impacts was identified.

Vegetation: The Proposed Action Alternative would result in minor, adverse impacts to vegetation as a result of clearing for construction activities and access. Temporary roads would be constructed to gain access to the piers and abutments for the proposed construction. Additional vegetation clearing would be needed to safely operate cranes and other equipment. Tree removal would be minimized wherever possible. Only 0.02 acres of rare/uncommon vegetation community will be temporarily impacted as this area would be re-vegetated with appropriate native and/or non-invasive species immediately following construction. Other communities impacted are ranked as secure in North Carolina and are common communities along the BLRI. The 2A16 and 2D17 projects require vegetation disturbance that would be noticeable, but only a small percentage of existing forested area in the context of the BLRI. Mitigation measures such as re-vegetating and re-grading disturbed areas within the RSAs would be implemented.

Hydrology and Water Quality: The Proposed Action Alternative would result in minor, adverse impacts as well as beneficial impacts to hydrology and water quality. The Proposed Action Alternative would result in minor, adverse impacts to hydrology as a result of the construction activities for each bridge and for permanent riprap installed at Brush Creek Bridge #1 in the channel around the base of the pier and abutments to protect those structures by preventing scour and erosion typically associated with bridge failure. The Proposed Action Alternative would have a beneficial impact on the hydraulic opening of Big Pine Creek Bridge #3 and #6 by removing existing sediment accumulations currently impeding proper stream flow. Both permanent and temporary direct, adverse impacts are considered minor as they are localized to the bridge. Any suspended particles would likely drop from the water flow near or around the bridge. Downstream impacts are not anticipated. The 2A16 and 2D17 projects require land and stream disturbance that would be noticeable, but only a small percentage of existing area in the context of the BLRI. Mitigation measures such as BMPs and re-vegetating and re-grading disturbed areas within the RSAs would be implemented.

Wetlands: The Proposed Alternative would result in minor, adverse impacts to WOUS. During construction, each project stream would incur temporary impacts due to stream diversions to allow room to repaint abutments and other work. The Proposed Alternative would result in minor, adverse impacts to wetlands from construction activities and access. Impacts to wetlands would result from the placement of construction access for each bridge. These impacts would be considered minor and under the threshold of USACE and NPS required compensatory mitigation. The 2A16 and 2D17 projects require land disturbance that would be noticeable, but only a small percentage of existing area in the context of the BLRI. Mitigation measures such as BMPs and re-vegetating and re-grading disturbed areas within the RSAs would be implemented.

Rare, Threatened, Endangered, and Special Status Species: The Proposed Action Alternative would result in minor, adverse impacts to habitat for rare, threatened, endangered, and special status species at each of the bridge sites. In consultation with the United States Fish & Wildlife Service (USFWS) and in accordance with the Endangered Species Act (ESA) of 1973, a Biological Assessment (BA) was prepared and submitted to the USFWS for the federally listed species potentially impacted by the Proposed Action Alternative. A determination of No Effect was made for the Virginia spiraea (*Spiraea virginiana*) and swamp pink (*Helonias bullata*). A determination of May Affect – Not Likely to Adversely Affect was made for the Northern long-eared bat (NLEB) (*Myotis septentrionalis*) and rusty patched bumble bee (*Bombus affinis*). The extent of suitable habitat is detailed within the BA. In a letter dated November 16, 2018, the USFWS concurred with these determinations.

The locations of state listed plant species have been identified and located during field investigations for the tree and vegetation survey. With their locations known, construction activities would avoid impacting these species to the maximum extent practicable. Impacts to state listed species would require coordination with NCNHP.

Because NCWRC has identified state listed aquatic species and Federal Species of Concern occurring downstream of the Laurel Fork RSA, NCWRC is recommending a moratorium prohibiting in-stream work and land disturbance

within the 25-foot trout buffer from October 15th to April 15th. NCWRC did not identify significant trout resources at the 2A16 bridges; therefore, they are not requesting a trout moratorium.

In addition, the Proposed Action Alternative for Brush Creek Bridge #1 would have beneficial impacts for general wildlife movement as a wildlife crossing is proposed for this bridge. This wildlife passage is a proposed engineered shelf along the southern abutment that would help to maintain and enhance the wildlife habitat connectivity along the riparian corridor and under the roadway. Conversely, the proposed sediment removal under Big Pine Creek Bridge #3 and #6 would have temporary, adverse impacts to wildlife movement as their dry walking path would be removed. Removal of the sediment would force some animals to cross over the BLRI where they could be hit and or cause a vehicle accident. This impact would be temporary since sediment would likely return to its former locations after heavy stream flows following storms.

Cultural Resources: Due to the total replacement of the Laurel Fork Bridge and the replacement of the superstructure on the three remaining bridges, this project would have an Adverse Effect on the bridges as contributing resources to the eligible BLRI Historic District. The project would also impact other character-defining features of the BLRI including masonry drainage channels, parapet guard-walls, rock embankments and freestanding guard walls. A MOA was executed on May 30, 2019, to determine the level of mitigation for the proposed project. Mitigation measures include a North Carolina Historic Structures Survey Report covering the four bridges and a Level II HAER covering the four bridges. The BLRI as a whole is aging and many repairs/replacements would be needed for historic bridges and other structures as they are approaching the end of their service lives. The 2A16 and 2D17 projects are just four bridges of the 168 bridges present along the BLRI.

Visitor Use: The Proposed Action Alternative would have beneficial impacts from improved safety by meeting current design standards and continued use of the bridges along the BLRI; a temporary, minor, adverse impact to the Mountains to Sea Trail hiking traffic at Laurel Fork Bridge during construction activities; a temporary, minor, impact to park concession operations, park campgrounds due to the detour routes; temporary, minor, increased traffic along on local public roads due to the detour routes; and temporary, minor, adverse impacts to the visual environment from vegetation clearing needed for construction. This project is needed to replace/rehabilitate the four bridges deemed structurally deficient and to improve safety for parkway visitors by replacing substandard height railings according to current roadway design standards.

In summary, the selected action will not have a significant effect on the human environment. There are no significant impacts on public health, public safety, threatened or endangered species, or unique characteristics of the region. The projects would have an Adverse Effect on the bridges as contributing resources to the eligible BLRI Historic District. However, a MOA executed on May 30, 2019, was developed in consultation with NPS, FHWA, NCSHPO, and THPOs. Mitigation identified in the Section 106 MOA includes reconstructing the bridges along their existing alignments to preserve the BLRI alignment, designing the new bridges to emulate the original styles, re-using the existing stone to the maximum extent practicable for the new piers and abutments, preparing a North Carolina Historic Structures Survey Report and a HAER recordation covering the four bridges. Stipulations related to inadvertent discoveries during construction are included. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected action would not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an environmental impact statement is not required for this action and thus will not be prepared.

MITIGATION MEASURES

The following mitigation measures related to construction activities would be implemented under the selected action.

- Hazardous waste would not be generated from normal construction activities. All hazardous materials would be stored in appropriate and clearly marked containers away from other non-waste materials. Prior to beginning work, the contractor would be required to submit a Spill Prevention, Control, and Countermeasure Plan as required by the Federal Water Pollution Control Act (Clean Water Act) 33 USC § 1251 et seq. If a Spill Prevention, Control, and Countermeasure Plan is not required, the contractor would submit a hazardous spill plan describing preventative measures including the location of refueling and storage facilities and the handling of hazardous material. The plan would describe actions to be taken in case of a spill. Further, the contractor would be prohibited from using equipment with leaking fluids and would be required to repair equipment fluid leaks immediately. The contractor would be required to keep absorbent material manufactured for containment and cleanup of hazardous material on the job site and to notify the Contracting Officer of hazardous spills immediately.
- Any soil excavated during construction would be stockpiled and reused as fill, if needed, in accordance with the Erosion and Sediment Control (E&SC) Plan. Stockpiled topsoil stripped from the construction area would be stored in an area that would not interfere with construction phases. Stockpiled soil would be covered with plastic or surrounded with silt fence as outlined in contract language mitigations. Should additional soil be needed, the soils would be clean, weed-free soils from an NPS approved source. NPS resource staff shall be notified if fill is required and when source of fill is determined. Notification shall be given, and two weeks' time allowed for inspection of fill source site. If fill is not approved, an alternative fill source shall be located, and an additional two weeks' notice given for new inspection to take place.
- Surveys for significantly large trees, and uncommon, rare, and aesthetically pleasing plant species were conducted within the Limits of Disturbance (LOD) to identify, confirm, and delineate occurrences and preserve them to the maximum extent practicable. Clearing would incorporate the removal of unhealthy or invasive tree species where feasible and the retention of native trees. Re-vegetation would be proposed in the disturbed areas for each of the Resource Survey Areas (RSAs), which would promote the growth of native and desirable species and prevention of colonization of invasive species.
- To prevent the further spread of non-native plants, control measures include ensuring construction and maintenance-related equipment arrives onsite free of mud or seed-bearing material; limiting vehicle parking to existing roadways, designated staging areas, or access routes; using only seeds certified as weed-free, identifying areas of noxious weeds preconstruction and re-vegetating with appropriate native and/or non-invasive species immediately following construction.
- Specific measures that minimize the impacts of construction access routes would be included in the project Plans, Specifications and Estimates. The Plans, Specifications and Estimates would include alignments, clearing limits, grading (if appropriate), drainage (if appropriate), erosion control, revegetation and any other information necessary for construction of the access routes.
- A moratorium prohibiting in-stream work and land disturbance at the Laurel Fork Bridge within the 25-foot trout buffer is recommended by the North Carolina Wildlife Resources Commission (NCWRC) from October 15 to April 15 to protect the egg and fry stages of trout. Significant trout resources are not expected at the 2A16 bridges; therefore, NCWRC did not request a trout moratorium. However, NCWRC suggested that stringent E&SC measures and standard recommendations should apply.

- An E&SC Plan would be prepared and implemented, consistent with the North Carolina Department of Environmental Quality: Division of Energy, Mineral and Land Resources' most recent version North Carolina Erosion and Sediment Control Planning and Design Manual. An approved E&SC Plan would be obtained if the proposed disturbance is equal to or greater than one acre for each bridge project: 2A16 and 2D17. After the state approves the E&SC Plan, the project would have coverage under a National Pollutant Discharge Elimination System (NPDES) Stormwater General Permit NCG010000 Stormwater Pollution Prevention Plan for construction-related activities. Due to protected aquatic species in Cranberry Creek (2D17) and that Cranberry flows to an Outstanding Resource Waters (ORW), NCWRC recommends that the Laurel Fork Bridge E&SC measures should adhere to the Design Standards in Sensitive Watersheds (15A NCAC 02H .1021). No construction vehicles would drive across flowing waterways. Stormwater would be directed to vegetated buffer areas and would not be discharged directly into surface waters. Big Pine Creek and Brush Creek (2A16) do not flow to ORW or are within one mile of High Quality Waters; therefore, E&SC measures are not required to adhere to Design Standards in Sensitive Watersheds.
- Temporary Best Management Practices (BMPs) would be utilized to minimize erosion and sedimentation from ground disturbing activities that expose bare soil, which would otherwise negatively impact water quality. The BMPs may include the use of silt fence, fiber roll, sediment traps, erosion matting, turbidity curtain, etc. These BMPs would be used only during construction and would be removed once the disturbed area has been permanently stabilized. Soil erosion would also be minimized by limiting the time that soil is left exposed. No construction vehicles would access the downslope side of perimeter control measures or track sediment outside of the project limits.
- Impacts to Waters of the US (WOUS) (including wetlands) would require a permit in accordance with Section 404 of the Clean Water Act administered by United States Army Corps of Engineers (USACE) and a Section 401 Water Quality Certification from the North Carolina Department of Environmental Quality (NCDEQ). The NPS follows a no-net-loss of wetlands policy found in *DO #77-1 "Wetland Protection"*, Procedural Manual #77-1 (NPS, 2016b), and *NPS Management Policies* (NPS, 2006b). Consistent with these guidelines, only mitigation banks on NPS lands can be used to satisfy wetland compensation requirements if mitigation is required. After construction, wetland areas used for access would be re-graded to pre-existing conditions and re-vegetated with native wetland species
- Tree removal would be minimized wherever possible. NPS and FHWA would not allow tree removal during the active bat season (April 1 to November 1) to reduce the chance of the impacting unidentified bat maternity roosts. The NPS would install two pole mounted (12-feet to 20-feet in height), multi-chamber bat boxes near the Laurel Fork Bridge prior to demolition specifically for little brown bats (*Myotis lucifugus*); however, other bat species would benefit from these boxes. Boxes would be placed as much as possible in the open and away from trees. Construction activities would occur during daylight hours. Mitigation measures for impact to rusty patched bumble bee habitat would include re-vegetating some areas of the disturbed areas with native wildflowers.
- Due to the historical significance of the existing stone-faced abutments and piers, NPS proposes to reuse the existing stone masonry to the maximum extent practicable, leaving as many existing elements in place as possible. Additionally, each bridge would be reconstructed on its existing alignment to preserve the historic BLRI alignment, roadway features, and adjacent natural areas.
- Due to the total replacement of the Laurel Fork Bridge and the replacement of the superstructure on the three remaining bridges, this project would have an Adverse Effect on the bridges as contributing resources to the National Register of Historic Places (NRHP)-eligible BLRI Historic District. A Memorandum of

Agreement (MOA) was developed in consultation with NPS, FHWA, North Carolina State Historic Preservation Office (NCSHPO), and Tribal Historic Preservation Offices (THPOs) and executed on May 30, 2019. The following tribes were asked to be signatories to the MOA – Shawnee Tribe, Catawba Indian Nation, Absentee Shawnee Tribe of Indians of Oklahoma, United Keetoowah Band of Cherokee Indians in Oklahoma, Cherokee Nation, and Eastern Band of Cherokee Indians. After the MOA was finalized, FHWA contacted the tribes and requested their signature on the MOA; but FHWA never received any response. After consulting with the NCSHPO and ACHP, FHWA considers any adverse effects to be resolved. Stipulations related to inadvertent discoveries during construction are included.

- If archeological resources are discovered during construction, the NPS would halt all work in the immediate vicinity of the discovery until the resources can be identified and documented, and an appropriate mitigation strategy developed. If necessary, NPS staff would consult with the NCSHPO, THPOs, and/or the NPS regional archeologist to ensure that the protection of resources is addressed. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, the National Park Service would follow provisions outlined in the Native American Graves Protection and Repatriation Act (*25 USC 3001*) of 1990.
- NPS would implement BLRI-wide or site-specific traffic control plans, as warranted, during construction. Standard measures would include strategies to maintain safe and efficient traffic flow. Project sequencing and road closures would be planned to minimize impacts to BLRI visitors, concession operations, and neighboring communities.
- Use of the landowner easement and permanent access road under the Laurel Fork Bridge would be needed for construction. Appropriate landowner coordination is currently being conducted. The access road would be returned to preexisting conditions after construction activities are complete.
- A portion of the Mountains to Sea Trail passes through the RSA. Mountains to Sea Trail is a formal NPS partner. Coordination regarding closure and/or rerouting of the trail will continue throughout the entire design process.
- Guardrail and guard walls would be designed in accordance with “Roadside Barrier Warranting and Assessment of Adverse Effects Screening Methodology” approved as part of the *Guardrail Replacement and Installation Programmatic Environmental Assessment, Appendix B, Roadside Cultural Resources Preservation: A guide to Assessing the Effects of Roadside Safety Implementation on the Blue Ridge Parkway* (2009) and subsequent FONSI signed 10/2010.

DECISION REACHED AND RATIONALE

The NPS has selected the proposed action described and analyzed in the EA for implementation, with modifications described in this FONSI made as a result of the public and agency comments.

The NPS selected the proposed action because this alternative would replace/rehabilitate the four BLRI bridges deemed structurally deficient and would improve safety by replacing substandard height railings according to current roadway design standards. The proposed action would replace/rehabilitate the bridges on existing alignments in a manner that maintains, to the maximum extent practicable, their historic character including roadway features and adjacent natural areas.

For these reasons and in consideration of the likely environmental impacts described in the EA and this Finding of No Significant Impact, I have decided to select the proposed action for implementation.

Recommended: 

J.D. Lee
Superintendent
Blue Ridge Parkway
National Park Service

7/12/2019
Date

Approved: 

Robert A. Vogel
Regional Director
Southeastern Region
National Park Service

8/12/2019
Date

APPENDIX A NON-IMPAIRMENT DETERMINATION

The Prohibition on Impairment of Park Resources and Values

NPS *Management Policies 2006*, Section 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resource and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

What is Impairment?

NPS *Management Policies 2006*, Section 1.4.5, *What Constitutes Impairment of Park Resources and Values*, and Section 1.4.6, *What Constitutes Park Resources and Values*, provide an explanation of impairment:

Impairment is an impact that, in the professional judgement of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

Section 1.4.5 of *Management Policies 2006* states:

An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

Per Section 1.4.6 of *Management Policies 2006*, park resources and values that may be impaired include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;

- the park’s role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park, but this would not be a violation of the Organic Act unless the NPS was in some way responsible for the action.

How is an Impairment Determination Made?

Section 1.4.7 of *Management Policies 2006* states, “[i]n making a determination of whether there would be an impairment, an NPS decision maker must use his or her professional judgement. This means that the decision-maker must consider any environmental assessments or environmental impact statements required by the National Environmental Policy Act of 1969 (NEPA); consultations required under Section 106 of the National Historic Preservation Act; relevant scientific and scholarly studies; advice or insights offered by subject matter experts and others who have relevant knowledge or experience; and the results of civic engagement and public involvement activities relating to the decision.”

Management Policies 2006 further defines “professional judgement” as “a decision or opinion that is shaped by study and analysis and full consideration of all the relevant facts, and that takes into account the decision maker’s education, training, and experience; advice or insights offered by subject matter experts and others who have relevant knowledge and experience; good science and scholarship; and, whenever appropriate, the results of civic engagement and public involvement activities related to the decision.”

Non-Impairment Determination for the Proposed Action Alternative

This determination on impairment has been prepared for the Proposed Action Alternative as described in Chapter 2 of the EA. An impairment decision is made for all resource impact topics analyzed for the Proposed Action Alternative. An impairment determination is not made for visitor use and experience, park operations or health and safety because impairment findings relate back to park resources and values, and those impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Vegetation

The Proposed Action Alternative would result in minor, adverse impacts to vegetation as a result of clearing for construction activities and access. Tree removal would include those located in the proposed LOD. The project would impact as few large trees as possible and preserve aesthetically pleasing patches of native shrubs/sub-canopy species to help conceal temporary impacts from construction activities. The construction access areas would avoid native trees to the maximum extent practicable. Unhealthy or non-native tree species would be slated for removal wherever feasible. All construction equipment would remain within the LOD for construction, limiting the potential vegetation impacts in the RSA. Impacts would also be minimized by re-grading and re-establishing native vegetation. The project would incorporate invasive species prevention and long-term monitoring. Although the disturbance would be noticeable until the vegetation is re-established, it constitutes a small percentage of the existing forested area within the context of the entire BLRI. Therefore, the Proposed Action alternative would not result in impairment to vegetation.

Hydrology and Water Quality

The Proposed Action Alternative would result in minor, adverse impact as well as beneficial impacts to hydrology and water quality. BMPs would be installed to reduce the potential for erosion and sedimentation in accordance with the NCDEQ approved E&SC Plan. Construction road surfaces would be temporary and BMPs would control and treat the runoff from those surfaces. Disturbed soil would be re-vegetated using specific seed mixes that do not include invasive or exotic species. Areas used for construction access would be re-graded to pre-existing conditions and re-vegetated with native and/or non-invasive species. Permanent riprap at Brush Creek Bridge #1 would be installed in the channel around the base of the pier and abutments to protect those structures by preventing scour and erosion typically associated with bridge failure. Preventing scour and failure would prevent significant erosion and the discharge of sediment laden stormwater as well as preventing other bridge and roadway construction materials in the water. Both permanent and temporary direct, adverse impacts are considered minor as they are localized to the bridge. Downstream impacts are not anticipated. Therefore, the Proposed Action Alternative would not result in an impairment to hydrology and water quality.

Wetlands

The Proposed Action Alternative would result in minor, adverse impacts to WOUS and wetlands from construction activities and access. Impacts from construction access consist of clearing, grading, and installing a temporary driving surface. However, after construction, areas used for access would be re-graded to pre-existing conditions and re-vegetated with native wetland species. Replacement/rehabilitation would be on the existing alignment and minimal approach work is needed.

To the maximum extent practicable, impacts to WOUS and wetlands would be avoided and unavoidable WOUS and wetland impacts would be minimized. The presence of WOUS and wetlands factored into the location of the construction access areas to minimize impacts to those features. Construction methods using mats, low impact equipment, and proper erosion and sediment control methods would be utilized to minimize impacts. These impacts would be considered minor and under the threshold of USACE and NPS required compensatory mitigation. The types of medium to high quality wetlands impacted are common to the BLRI; therefore, they would be considered a small percentage of impact to the total amount of wetlands in the park. Therefore, the Proposed Action Alternative would not result in impairment to wetlands.

A Wetland Statement of Findings is not required for these projects. Exception #8 (Bridge Replacements) under Section 4.2.1. Potential Exceptions for Certain “Water Dependent” and Maintenance Activities of the NPS Procedural Manual #77-1: Wetland Protection allows for up to 0.25 acre of new, permanent impacts on wetlands. Each of the four bridge locations, which have independent utility and are analyzed separately, is below the impact threshold. Section 4.2.2 and Appendix B of the manual contain fifteen additional conditions that must be met for projects to qualify for an exception. Appendix B, Condition #15, states that an action must not have an adverse effect on Historic Properties listed or eligible for listing in the NRHP. Each of the four bridges are contributing resources to the NRHP-eligible BLRI National Historic District. The construction constitutes an adverse effect to the Historic District; however, the adverse effects are being mitigated through a MOA between NPS, FHWA, and the NC SHPO Office.

Rare, Threatened, Endangered, and Special Status Species

The Proposed Action Alternative would result in minor, adverse impacts to habitat for rare, threatened, endangered, and special status species at each of the bridge sites. NPS would not allow tree removal during the active bat season (April 1 to November 1) to reduce the chance of impacting unidentified NLEB bat maternity roosts. The NPS would

install two pole mounted (12-foot to 20-foot in height), multi-chamber bat boxes near the Laurel Fork Bridge prior to demolition specifically for little brown bats; however, other bat species would also benefit from these boxes. Boxes would be placed, as much as possible, in the open and away from trees. Construction activities would occur during daylight hours. Mitigation measures would include replanting trees for NLEB habitat and re-vegetating disturbed rusty patched bumble bee habitat with native wildflowers once construction is complete. For trout species at the Laurel Fork Bridge, NPS and FHWA would adhere to the October 15 to April 15 moratorium. In addition, the area impact is small relative to the whole area of the park. Due to implementation of wildlife moratoria and mitigation measures, the Proposed Action Alternative would not result in impairment to rare, threatened, endangered, and special status species

Cultural Resources

Due to the total replacement of the Laurel Fork Bridge and the replacement of the superstructure on the three remaining bridges, this project would have an Adverse Effect on the bridges as contributing resources to the eligible BLRI Historic District. A MOA executed May 30, 2019, was developed in consultation with NPS, FHWA, NCSHPO, and THPOs to resolve the adverse effects. Mitigation includes reconstructing the bridges along their existing alignments to preserve the BLRI alignment, designing the new bridges to emulate the original styles, re-using the existing stone to the maximum extent practicable for the new piers and abutments, preparing a North Carolina Historic Structures Survey Report covering the four bridges, and preparing a HAER recordation covering the four bridges. BLRI was created to provide a scenic driving experience with recreation areas connecting the Shenandoah and the Great Smoky Mountains National Parks. Replacement and rehabilitation of the bridges retains the park purpose of providing a continuous driving experience and the mitigations identified ensure that the Proposed Action Alternative will not result in impairment of Cultural Resources.

APPENDIX B

ERRATA RESPONSES TO PUBLIC COMMENTS Environmental Assessment for the BLRI 2D17 and BLRI 2A16 Projects

ERRATA

The following changes has been made to the Environmental Assessment (EA) for the BLRI 2D17 and BLRI 2A16 Projects (May 2019) to correct minor statements of fact, update information, and disclose minor adjustments to the Proposed Action Alternative and impact analysis. Additions to the text are identified by underlines and deletions are marked by ~~strikeout~~ unless otherwise noted. These errata are intended to correct or clarify statements in the EA other than the typographical and minor editorial errors.

Document-wide edit.

Text in the Draft EA was revised to state that the Memorandum of Agreement (MOA), prepared to mitigate the Adverse Effect from the replacement/rehabilitations, was executed May 30, 2019. Text also updates the coordination process.

Chapter 1, Page 1, Lines 10 to 11:

The fourth bridge, the Laurel Fork Bridge (also known as the Laurel Fork Viaduct) composes the 2D17 project.

Chapter 2, Page 20, Lines 1 to 2:

All work is expected to take place within the existing NPS right-of-way and construction access, although the detours would extend onto public roads outside the park boundaries

Chapter 2, Page 20, Line 27 to 28:

Otherwise, new Elberton granite veneer would be used on the abutments, ~~ditch, and stonewall parapets,~~ guardwalls, and paved waterways to replicate the current veneer as closely as possible.

Chapter 2: Page 25, Lines 30 to 32:

- A portion of the Mountains to Sea Trail passes through the RSA. ~~Coordination regarding closure and/or rerouting of the trail is currently being conducted prior to the start of construction activities.~~ Mountains to Sea Trail is a formal NPS partner. Coordination regarding closure and/or rerouting of the trail will continue throughout the entire design process.

Chapter 2: Page 26, Line 35:

3) Full replacement on new alignment

Chapter 3, Page 49, Line 24:

- Laurel Fork Bridge (also known as the Laurel Fork Viaduct) (Latitude/Longitude 36.387934, -81259914)

RESPONSE TO PUBLIC COMMENTS

The Draft Environmental Assessment for the BLRI 2D17 and 2A16 Projects was released for public review on May 1, 2019 for a 30-day public comment period. During the comment period, a total of 6 correspondences were received. Comments were provided via email; mail; and the NPS Planning, Environment, and Public Comment (PEPC) website. No comments warranted development of an additional alternative or reconsiderations of alternatives that were considered but dismissed. Therefore, the alternatives remain as described in the EA and no changes were made in the assessment of environmental consequences other than minor word processing edits and corrections. Comments were reviewed and summarized. Responses to the concerns are provided below:

1. Comment by: US Environmental Protection Agency (Region 4) – May 31, 2019

Comment: Based on the information provided in the draft EA, the proposed project does not appear to represent a significant impact to the environment.

Response: Comment noted

2. Comment by: NC Division of Water Resources (NCDWR) (Winston Salem Regional Office) – May 16, 2019

Comment: The NC Division of Water Resources requests that NPS and FHWA consider the environmental issues for the proposed project, most of which were previously submitted on September 5, 2018 during the planning stages of your proposed projects.

Response: Comment noted. NPS and FHWA shall adhere to the NCDWR's environmental issue suggestions as detailed in May 16, 2019 letter.

3. Comment by: NC Division of Waste Management (Inactive Hazardous Sites Branch) – May 14, 2019

Comment: No sites were identified within one mile of the project.

Response: Comment noted

4. Comment by: NC Division of Waste Management (Solid Waste Section) – May 28, 2019

Comment: The review has been completed and has found no adverse impact on the surrounding community and likewise knows of no situations in the community, which would affect this project from a solid waste perspective.

During the project, every feasible effort should be made to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable. Any waste generated by this project that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility approved to manage the respective waste type. The Section strongly recommends that any contractors are required to provide proof of proper disposal for all waste generated as part of the project.

Response: Comment noted. NPS and FHWA shall adhere to Solid Waste Section's environmental suggestions to the maximum extent practicable.

5. Comment by: PEPC Record 82234

Comment: Dear Sirs,

I am commenting on the work proposed at Laurel Fork Bridge. While I understand the necessity of the work proposed, I would request that the proposed detour for the work be reconsidered. The proposed detour is quite lengthy (17 miles) and takes visitors off the Parkway for approx. 11 miles. An alternate much shorter detour would be (from north to south) to leave the BRP at HWY18 and rejoin at South Laurel Fork Rd SR 1613. This detour would take visitors off the Parkway for just 1.5 miles and a shorter detour of 6 miles. I respectfully request you consider this alternative detour. Thank you.

Response: The suggested detour has been submitted for consideration and will be considered further through the design process. Final approval of the detour will be made by the NC Department of Transportation (NCDOT). Detour termini are not necessarily closure points of the Blue Ridge Parkway. Visitor safety is a priority. The selected detour route will ensure the safe passage of visitors.

6. Comment by: PEPC Record 82234

Comment: Dear Sirs,

ALTERNATIVE DETOUR PROPOSAL. I am commenting again on the work proposed at Laurel Fork Bridge. While I understand the necessity of the work proposed, I would request that the proposed detour for the work be reconsidered. HWY 88 is already a very busy, windy road, and a shorter detour than the one proposed on this highway would be a huge safety benefit. One option would be (from south to north), to leave the Parkway at Roe Hunt Road, to HWY 88 and then on HWY 88 to Laurel Springs and rejoin the Parkway North at HWY 18. This would be a detour of only 10 miles versus the proposed detour of 17 miles. Additionally, visitors would miss only 7 miles versus the proposed 11 miles. I respectfully request you consider this alternative detour. Thank you.

Response: The suggested detour has been submitted for consideration and will be considered further through the design process. Final approval of the detour will be made by NCDOT. Detour termini are not necessarily closure points of the Blue Ridge Parkway. Visitor safety is a priority. The selected detour route will ensure the safe passage of visitors.

APPENDIX C

Memorandum of Agreement Environmental Assessment for the BLRI 2D17 and BLRI 2A16 Projects

MEMORANDUM OF AGREEMENT
AMONG
THE NATIONAL PARK SERVICE,
THE FEDERAL HIGHWAY ADMINISTRATION,
SHAWNEE TRIBE,
CATAWBA INDIAN NATION,
ABSENTEE SHAWNEE TRIBE OF INDIANS OF OKLAHOMA,
UNITED KEETOOWAH BAND OF CHEROKEE INDIANS IN OKLAHOMA,
CHEROKEE NATION,
EASTERN BAND OF CHEROKEE INDIANS,

and

THE NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE (NCSHPO)

PURSUANT TO 36 CFR § 800.6
regarding

THE REPLACEMENT OF FOUR (4) BRIDGES ALONG THE BLUE RIDGE PARKWAY
IN ALLEGHANY AND ASHE COUNTIES, NORTH CAROLINA

WHEREAS, the National Park Service (herein “NPS”) is the lead Federal Agency for the National Historic Preservation Act (54 U.S.C. 306108) and Section 106 compliance for the replacement of four bridges along the Blue Ridge Parkway (BLRI); and,

WHEREAS, the Eastern Federal Lands Highway Division of the Federal Highway Administration (herein “FHWA”) is a cooperating agency, and,

WHEREAS, the project includes the replacement of four (4) bridges (Big Pine Creek Bridge #3 Structure 5140-077P- MP 223.78 in Alleghany County, Big Pine Creek Bridge #6 Structure 5140-080P- MP 224.7 in Alleghany County, Brush Creek Bridge #1 Structure 5140-081P- 227.45 in Alleghany County and Laurel Fork Bridge Structure 5140-159P- 248.9 in Ashe County) along BLRI in Alleghany and Ashe Counties, North Carolina due to their structural deficiencies and to improve safety (herein “Undertaking”); and,

WHEREAS, the Area of Potential Effects (herein “APE”) established for the Undertaking in consultation with the North Carolina State Historic Preservation Officer (herein “NCSHPO”) and other Signatories includes historic properties eligible or potentially eligible for listing in the National Register

of Historic Places (herein “NRHP”) and within the proposed Blue Ridge Parkway National Historic Landmark Historic District; and the APE is depicted in **ATTACHMENT A**; and, WHEREAS, within the APE, the following architectural components have been identified as contributing resources to the Blue Ridge Parkway NRHP Eligible Historic District and proposed Blue Ridge Parkway National Historic Landmark Historic District: the road corridor, including alignment, grade, side slopes, pavement and curbs; road structures, including the four (4) bridges, masonry drainage channels, parapet guard-walls, rock embankments, and free-standing guard walls; and the scenic corridor, including the forest, woodland and agricultural scenes; and,

WHEREAS, the entire APE was surveyed for archeological resources, and the following two sites were identified: site 31AL107, an earthen berm adjacent to Big Pine Creek Bridge #3, and site 44A108, a small prehistoric site near Big Pine Creek Bridge #6; and NPS has determined the sites are not eligible for listing in the NRHP; and,

WHEREAS, NCSHPO and other Signatories concur with the identification and evaluation of historic properties within the APE; and,

WHEREAS, NPS determined that the Undertaking will result in an adverse effect to the Blue Ridge Parkway NRHP Eligible Historic District and proposed Blue Ridge Parkway National Historic Landmark Historic District, and is the only finding of adverse effect associated with the Undertaking; and,

WHEREAS, the Undertaking does not meet the criteria for Streamlined Review Process as outlined in the Programmatic Agreement Among the NPS, the ACHP, and the National Conference on State Historic Preservation Offices for compliance with Section 106 of the NHPA (signed in 2008); and,

WHEREAS, NPS notified NCSHPO of the Undertaking’s adverse effect on historic properties, and the NCSHPO concurred with the determination *and agreed to participate in the development of a Memorandum of Agreement (MOA) on September 24, 2018*; and,

WHEREAS, FHWA notified the Advisory Council on Historic Preservation (herein “ACHP”) of the Undertaking’s adverse effect on historic properties, and has invited, in accordance with 36 CFR § 800.6(a)(1), the ACHP to participate in consultation *and the ACHP declined to participate on October 3, 2018*; and,

WHEREAS, NPS consulted with the Shawnee Tribe regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring party, in accordance with 36 CFR § 800.6(a)(1), *and the Shawnee Tribe responded on September 19, 2018*; and,

WHEREAS, NPS consulted with the Catawba Indian Nation regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring party, in accordance with 36 CFR § 800.6(a)(1), *and the Catawba Indian Nation responded on September 5, 2018*; and,

WHEREAS, NPS consulted with the Absentee Shawnee Tribe of Indians of Oklahoma regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring

party, in accordance with 36 CFR § 800.6(a)(1), *and the Absentee Shawnee Tribe of Indians of Oklahoma responded on October 4, 2018*; and,

WHEREAS, NPS consulted with the United Keetoowah Band of Cherokee Indians in Oklahoma regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring party, in accordance with 36 CFR § 800.6(a)(1), *and the United Keetoowah Band of Cherokee Indians in Oklahoma responded on September 12, 2018*; and,

WHEREAS, NPS consulted with the Cherokee Nation regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring party, in accordance with 36 CFR § 800.6(a)(1), *and the Cherokee Nation responded on September 14, 2018*; and,

WHEREAS, NPS consulted with the Eastern Band of Cherokee Indians regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring party, in accordance with 36 CFR § 800.6(a)(1), *and the Eastern Band of Cherokee Indians responded on January 10, 2019*; and,

WHEREAS, NPS consulted with the Tuscarora Nation and the Eastern Shawnee Tribe of Oklahoma regarding the effects of the Undertaking on historic properties, and has invited them to sign this MOA as a concurring party, in accordance with 36 CFR § 800.6(a)(1), *and the Tuscarora Nation and the Eastern Shawnee Tribe of Oklahoma Indians have not responded*; and,

WHEREAS, NPS, in accordance with 36 CFR § 800.2(d), has provided the public an opportunity to comment on this Undertaking through the NPS Planning, Environment & Public Comment (PEPC) website and a public comment period extending from August 10, 2018 through September 10, 2018; and,

WHEREAS, NPS, in accordance with 36 CFR § 800.10(a) and in consultation with the parties to the Agreement, has ensured that, to the maximum extent possible, planning and actions to minimize harm to BLRI have taken place, including an analysis of alternatives considered to avoid and minimize adverse effects;

NOW THEREFORE, NPS, FHWA, NCSHPO, the Shawnee Tribe, the Catawba Indian Nation, the Absentee Shawnee Tribe of Indians of Oklahoma, the United Keetoowah Band of Cherokee Indians in Oklahoma, the Cherokee Nation, and the Eastern Band of Cherokee Indians agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

STIPULATIONS

NPS shall ensure that the following measures are implemented:

I. MITIGATION MEASURES

A. Aesthetic Design

Each bridge will be reconstructed on its existing alignment to preserve the historic BLRI alignment, roadway features, and adjacent natural areas. The Laurel Fork Bridge will be a complete replacement. The other three bridges will be rehabilitated, including deck replacements in combination with retaining/repairing existing abutments and select piers to retain the historic design.

All guardrail replacements will be implemented in accordance with the “Roadside Barrier Warranting and Assessment of Adverse Effects Screening Methodology” as described in the *Guardrail Replacement and Installation Programmatic Environmental Assessment, Appendix B, Roadside Cultural Resources Preservation: A guide to Assessing the Effects of Roadside Safety Implementation on the Blue Ridge Parkway* (2009).

<https://parkplanning.nps.gov/document.cfm?parkID=355&projectID=14214&documentID=29668>

The following elements will be incorporated into the designs to minimize and/or mitigate the adverse effects:

1. Big Pine Creek Bridge #3

- Preserve the current alignment and bridge geometry
- Replace superstructure (deck and rails) of the bridge
- Construct new abutments behind the existing abutments for structural stability while minimizing visual impacts; the existing stone masonry abutments will be partially preserved, and existing stone veneer will be repointed
- Both existing bridge piers will be removed, and a new pier will be constructed in the middle of the bridge. Stone from piers designated for replacement will be salvaged and used as stone facing for the new pier to the extent possible.
- Existing wood rails and concrete posts will be replaced with timber guardrails and brown steel I-beam posts to replicate the design of the existing rails as closely as possible while meeting safety requirements for crash testing
- If engineers determine that riprap placement is necessary, it will be limited to areas needed to protect the structure from scour and erosion. NPS will provide potential local quarry sources for riprap. NPS will participate in the review, inspection and approval of all proposed riprap, including source and color, to minimize visual impacts to the extent practicable
- No realignment alternatives or changes to bridge geometry are proposed

2. Big Pine Creek Bridge #6

- Preserve the current alignment and bridge geometry
- Replace superstructure (deck and rails) of the bridge
- Construct new abutments behind the existing abutments for structural stability while minimizing visual impacts; the existing stone masonry abutments will be partially preserved, and existing stone veneer will be repointed
- The existing pier will be removed and replaced with a new pier in the same location. Stone from the original pier will be salvaged and used as facing for the new pier.
- Existing wood rails and concrete posts will be replaced with timber guardrails and brown steel I-beam posts to replicate the design of the existing rails as closely as possible while meeting safety requirements for crash testing

- If engineers determine that riprap placement is necessary, it will be limited to areas needed to protect the structure from scour and erosion. NPS will provide potential local quarry sources for riprap. NPS will participate in the review, inspection and approval of all proposed riprap, including source and color, to minimize visual impacts to the extent practicable

3. Brush Creek Bridge # 1

- Preserve the current alignment and bridge geometry
- Replace superstructure (deck and rails) of the bridge
- Construct new abutments behind the existing abutments for structural stability while minimizing visual impacts; the existing stone masonry abutments will be partially preserved, and existing stone veneer will be repointed
- Existing pier will be retained in place and modified to accommodate the new bridge deck; the pier will no longer be load-bearing
- Existing wood rails and concrete posts will be replaced with timber guardrails and brown steel I-beam posts to replicate the design of the existing rails as closely as possible while meeting safety requirements for crash testing
- Riprap will be installed adjacent to the pier and abutments. Riprap placement will be limited to areas needed to protect the structure from scour and erosion. NPS will provide potential local quarry sources for riprap. NPS will participate in the review, inspection and approval of all proposed riprap, including source and color, to minimize visual impacts to the extent practicable
- Design will incorporate a wildlife crossing under the bridge along the west bank.

4. Laurel Fork Bridge

- Replacement bridge will preserve the existing alignment and Parkway geometry
- Design of the new piers will replicate the existing design as closely as possible
- Existing stone-lined ditches will be replicated as closely as possible
- The stone veneer from the existing abutments will be salvaged and stockpiled for use on future masonry restoration projects
- The new bridge abutments will include granite facing
- Existing concrete guardrails will be replaced to replicate the existing rails as closely as crashworthy design will allow
- Existing stone walls along the bridge approaches will be replicated as closely as possible
- If engineers determine that riprap placement is necessary, it will be limited to areas needed to protect the structure from scour and erosion. NPS will provide potential local quarry sources for riprap. NPS will participate in the review, inspection and approval of all proposed riprap, including source and color, to minimize visual impacts to the extent practicable

B. Archival Documentation

- B.1 Prior to demolition of the bridges and any construction activities, Historic American Engineering Record (HAER) Level II documentation will be completed for the four (4) bridges by NPS.

All documentation activities will be performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).

HAER documentation will be completed by NPS. NPS will forward the documentation to the NPS Southeast Regional Office who will provide their comments to the NPS. NPS shall revise the documentation to address comments and provide revised documentation to the NPS Southeast Regional Office within 60 calendar days after receiving comments. NPS shall forward revised documentation to the NPS Southeast Regional Office who will review for acceptance to the Heritage Documentation Program Collection of the Library of Congress. Upon acceptance of the HAER documentation, the NPS shall ensure that copies of all documents resulting from the HAER documentation, including pertinent field records, notes, site sketches, superintendent reports, and construction reports shall be provided to NCSHPO, the Library of Congress, and the permanent collection of NPS. The NPS shall provide all said copies to all parties within 45 calendar days of notification of acceptance.

Documentation will include, but is not limited to:

1. The written historical and descriptive data prepared in accordance with outline format guidelines containing:
 - a. A general history of BLRI
 - b. A construction history of the bridge including the history of the bridge type
 - c. An architectural description of the resource including alterations
 - d. A description of the site and changes
 - e. Any historical photographs in the supplementary materials section (these may be subject to copyright release if not held by BLRI)
 - f. A site plan
2. Reproduction of as built drawings
3. Large-format (4" x 5" or larger negative size) photographs processed for archival permanence in accordance with HAER photographic specifications (www.nps.gov/hdp/standards/photoguidelines.pdf). Views will include:
 - a. At least one view that shows the resource in context
 - b. One photograph of both faces
 - c. Photographs of the substructure
 - d. Views of any detail unique to the resource including railings or date stamps/plaques
4. At least one-color digital photograph of each resource and its setting. The digital format should meet the NPS NRHP's 75-year permanence standard and higher resolution digital files (www.nps.gov/NR/PUBLICATIONS/bulletins/photopolicy/index.htm).
5. Photo locations keyed to the site plan and included with the "Index to Photographs."

B.2 North Carolina Historic Structures Survey Report

This report will be completed by NPS and submitted to NCSHPO

All documentation activities will be performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).

The written historical and descriptive data prepared in accordance with guidelines developed by SHPO containing but is not limited to:

- a. A general history of BLRI
- b. A construction history of the bridge including the history of the bridge type
- c. An architectural description of the resource including alterations
- d. A description of the site and changes
- e. Photos
- f. Any historic photos, and/or maps found during research

C. Unanticipated Discoveries

1. In order to address the potential for the late discovery of archaeological properties within the APE, the parties to this Agreement are bound to the provisions of this stipulation. Additionally, NPS shall ensure that all contract documents contain the provisions of this stipulation, as appropriate to the contractor's involvement, and that contractors are appropriately notified of their obligation to protect archaeological discoveries.
2. In the event that previously unidentified archaeological properties are discovered during ground disturbing activities, the contractor shall immediately halt all construction work involving subsurface disturbance in the immediate vicinity (600 feet) of the property, and immediately notify NPS. NPS shall notify the NCSHPO and other Signatories of the discovery within two (2) business days.
3. Using a qualified archaeologist meeting the Secretary's Professional Qualifications Standards for Archaeology, NPS shall promptly inspect the work site and determine the area and nature of the affected archaeological property. Other Signatories may participate in this or a separate inspection of the discovery site if they so desire. Construction work may then continue in the area outside the archaeological property as defined by NPS in consultation with the Signatories, or their designated representative.
4. Within five (5) business days of the original notification of discovery, NPS, in consultation with the Signatories, shall determine the NR eligibility of the property and provide the eligibility determination to NCSHPO for concurrence.
5. If the property is determined eligible for the NR, or contains human burials, NPS shall prepare a plan for its avoidance, protection, or recovery of information. The plan shall be submitted to the Signatories for review and approval prior to its implementation. If comments are not received within five (5) business days following receipt, it shall be presumed that the party has no objection and the plan may be implemented.
6. Work in the affected area shall not proceed until either:

- a. The development and implementation of appropriate data recovery or other recommended mitigation procedures is completed, or
 - b. The determination is made that the located properties are not eligible for inclusion on the National Register.
7. Any disputes over the evaluation or treatment of previously unidentified properties shall be resolved as provided in the section of this Agreement entitled Dispute Resolution (Stipulation II).

D. Discovery of Human Remains or Funerary Objects

If suspected human remains or funerary objects are identified during construction, NPS shall require that construction be halted immediately at the location of the remains. NPS and local law enforcement shall be immediately contacted by the on-site NPS engineer to determine if the discovery is a crime scene. NPS shall ensure that further construction does not occur within 200 feet in any direction of the discovery until a qualified archeologist arrives to assess the discovery. NPS shall secure the area of the apparent human remains to ensure no further disturbance or removal of those remains and associated material occurs. NPS shall also ensure that vehicular traffic across the area is restricted to a location removed from the discovery. After arrival at the site, NPS shall ensure that a qualified archaeologist shall evaluate the discovery. If it does consist of human remains, the archaeologist shall follow the procedures as follows:

1. HUMAN REMAINS ON FEDERAL LANDS

If Native American human remains and cultural items, as defined by the Native American Graves Protection and Repatriation Act (NAGPRA), are encountered on Federal lands during any construction-related activities, work within 200 feet of the discovery shall cease. NPS shall notify the NCSHPO and all other Signatories within 48 hours of the discovery. NPS, as the lead Federal management agency, shall comply with the requirements of NAGPRA (43 CFR § 10). NPS, in consultation with the Signatories, shall take into account, as applicable, the *Catawba Indian Nation Burial Policy and Procedures*, provided as **Attachment B**, and the *Eastern Band of Cherokee Indians Treatment Guidelines for Human Remains and Funerary Objects*, provided as **Attachment C**.

2. PERMITS AND CONDITIONS

- a. NPS, in consultation with the Signatories, shall ensure that human skeletal remains and associated funerary objects encountered during the course of actions taken as a result of this agreement shall be treated in accordance with the *Catawba Indian Nation Burial Policy and Procedures*, provided as **Attachment B**, and/or the *Eastern Band of Cherokee Indians Treatment Guidelines for Human Remains and Funerary Objects*, provided as **Attachment C**.
- b. NPS shall notify all Signatories when burials, human skeletal remains, or funerary objects are encountered on the Project, prior to any analysis or recovery.
- c. NPS shall ensure that the general public is excluded from viewing any Native American burial sites, human remains, or associated funerary objects. The Signatories shall not release any photographs of any American Indian burial site or associated funerary objects to the press or the general public.

- d. Any Native American human remains and associated funerary objects recovered pursuant to this agreement shall be re-interred in consultation with the Signatories. The Signatories shall determine the party or parties that shall assume responsibility for planning and executing the re-interment. NPS shall deliver these remains and objects to the party or parties designated by the Signatories. The designated party or parties shall be responsible for the costs of re-interment. The disposition of any other human skeletal remains and associated funerary objects shall be governed as specified in any permit issued by the NCSHPO or any order of the local court authorizing their removal.

II. DISPUTE RESOLUTION

Should any signatory to this MOA object within 30 days to actions or plans for review pursuant to this MOA or dispute the completion of the terms of this agreement, NPS shall consult with the objecting party to resolve the objections. If NPS determines that the objection cannot be resolved, NPS shall forward all documentation relevant to the objection to the ACHP and request the ACHP's comments pursuant to 36 CFR 800.2(b)(2).

Any comments provided in response to such a request shall be taken into account by NPS before NPS reaches a final decision on the dispute. If ACHP does not provide comments regarding the dispute within 30 days after receipt of a request for assistance pursuant to 36 CFR 800.2(b)(2), NPS may implement its proposed resolution or render a decision regarding the dispute.

III. AMENDMENT

A. In the event that FHWA must make substantive changes to the agreed-upon treatments and design plans during implementation of the Undertaking, FHWA shall notify and request the comments of the Signatories regarding the modifications to the Undertaking.

B. Any signatory to this MOA may request that the MOA be amended, whereupon the signatories will consult to develop an amendment.

C. Any resulting amendments shall be developed and executed among the Signatories in the same manner as the original MOA.

IV. TERMINATION

The signatories may terminate this MOA by providing 30 days' notice to the other parties, provided that the parties shall consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

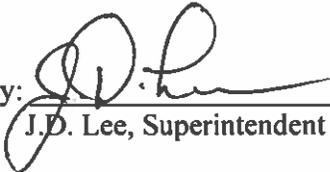
V. DURATION

This MOA shall expire if its terms are not carried out within ten (10) years from the date of the final signature, unless the signatories agree in writing to an extension for carrying out its terms.

EXECUTION

Execution of this MOA between NPS, FHWA, NCSHPO, the Shawnee Tribe, the Catawba Indian Nation, the Absentee Shawnee Tribe of Indians of Oklahoma, the United Keetoowah Band of Cherokee Indians in Oklahoma, the Cherokee Nation, and the Eastern Band of Cherokee Indians and implementation of its terms is evidence that NPS has taken into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity to comment.

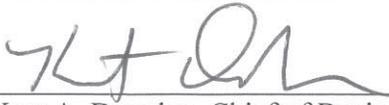
U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, BLUE RIDGE PARKWAY

By: 

J.D. Lee, Superintendent

Date: 3/20/2019

U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION,
EASTERN FEDERAL LANDS HIGHWAY DIVISION

By: 
Kurt A. Dowden, Chief of Business Operations

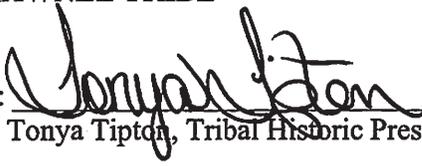
Date: 3/19/19

NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICE

By: Kevin Cherry
Dr. Kevin Cherry, State Historic Preservation Officer

Date: 4/2/19

SHAWNEE TRIBE

By: 
Tonya Tipton, Tribal Historic Preservation Officer

Date: 5/16/19

ABSENTEE SHAWNEE TRIBE OF INDIANS OF OKLAHOMA

By: _____
Ms. Devon Frazier, Tribal Historic Preservation Officer

Date: _____

CATAWBA INDIAN NATION

By: Wenonah G. Haire, Jr.
Dr. Wenonah G. Haire, Jr., Tribal Historic Preservation Officer

Date: 3/26/17

UNITED KEETOOWAH BAND OF CHEROKEE INDIANS IN OKLAHOMA

By: _____
Karen Pritchett, Tribal Historic Preservation Officer

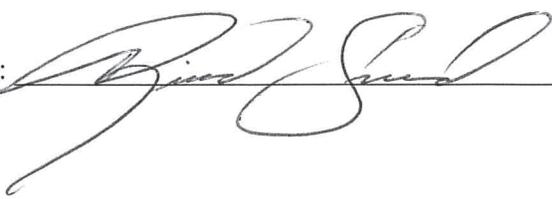
Date: _____

CHEROKEE NATION

By: _____
Sara Hill, Secretary of Natural Resources

Date: _____

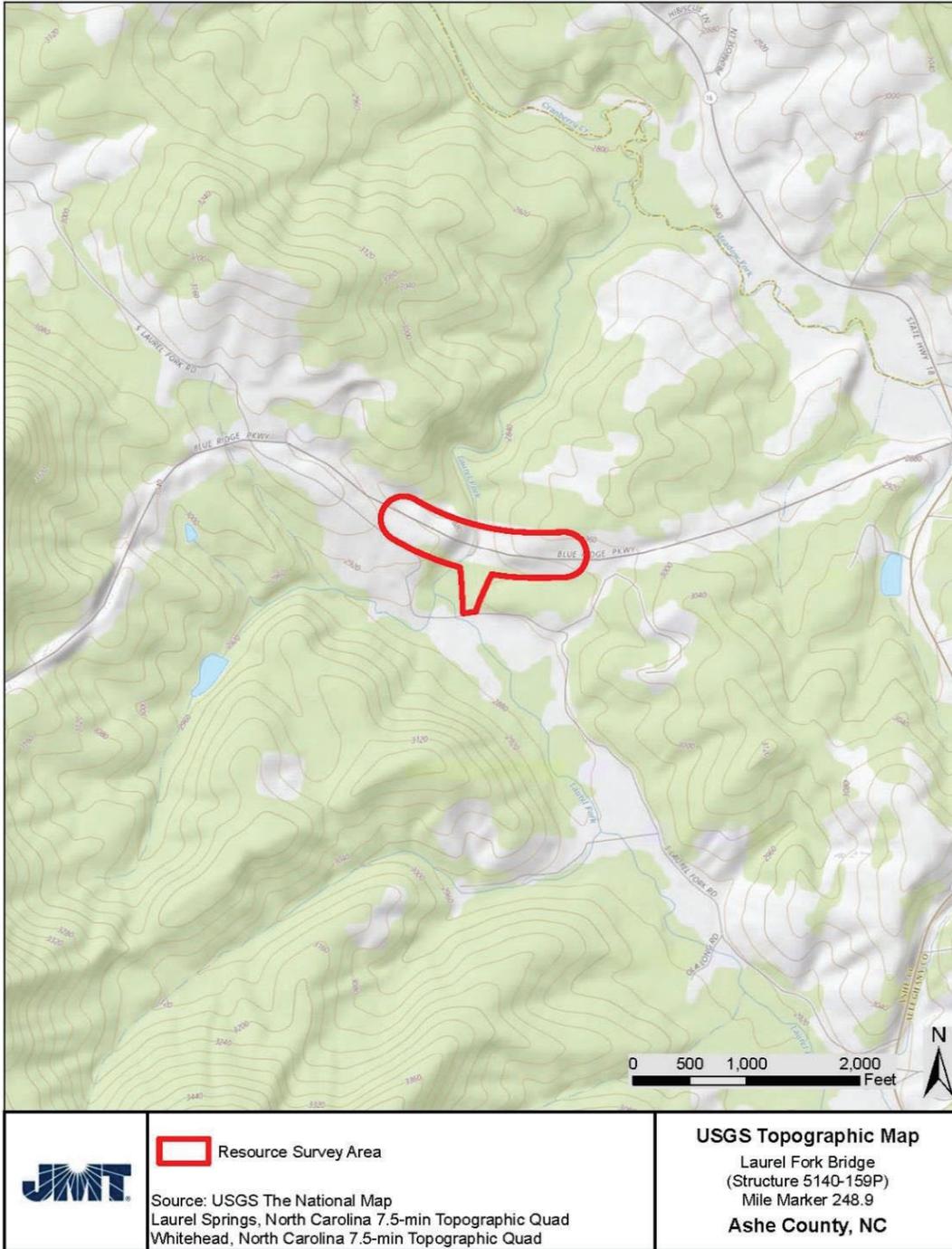
EASTERN BAND OF CHEROKEE INDIANS

By:  _____

Date: 5/30/19

ATTACHMENT A: Area of Potential Effects

Laurel Fork Bridge Project Area of Potential Effects, USGS Map



Brush Creek Bridge #1 Area of Potential Effects, USGS Map

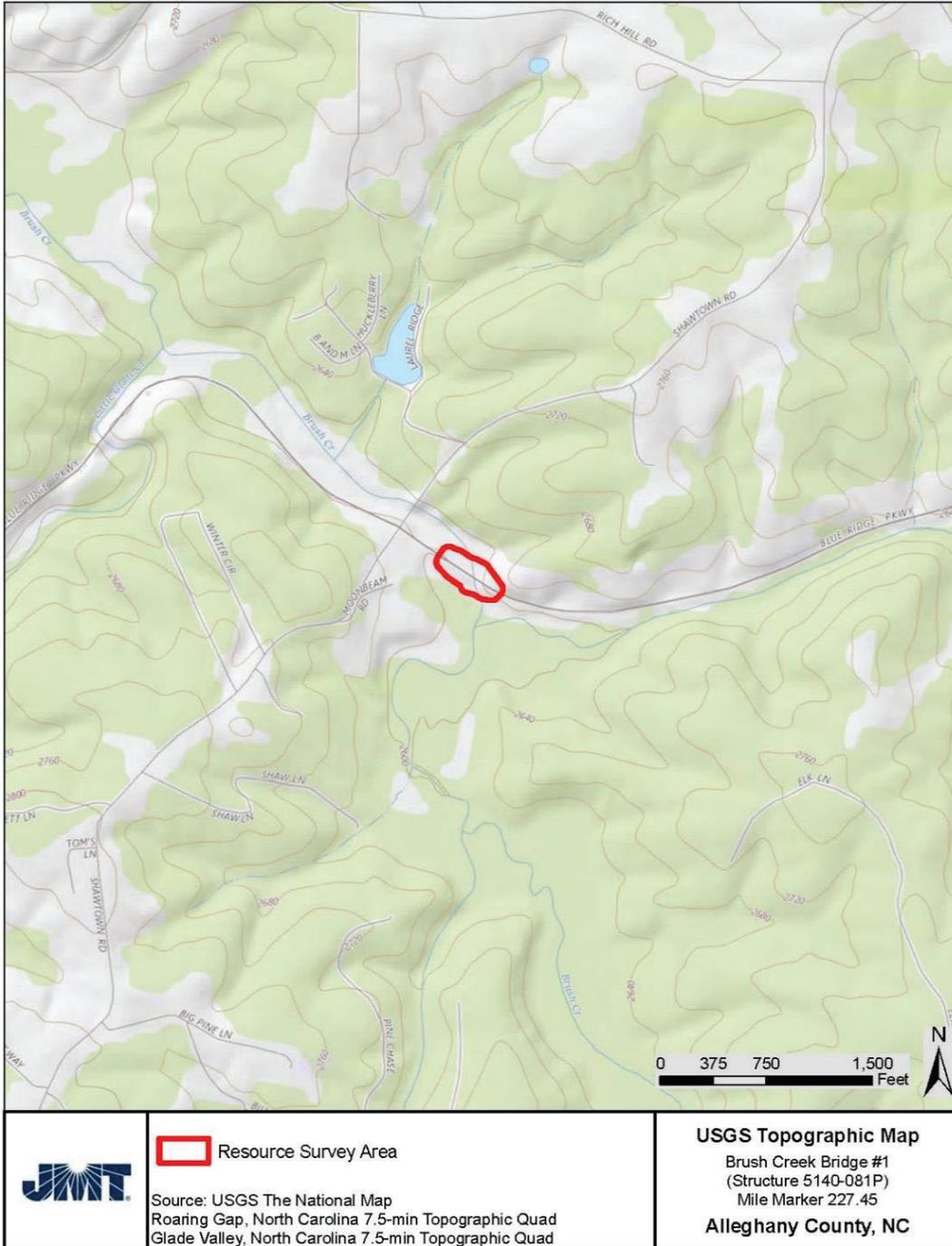


Figure 5. Big Pine Creek Bridge #3 Area of Potential Effects, USGS Map

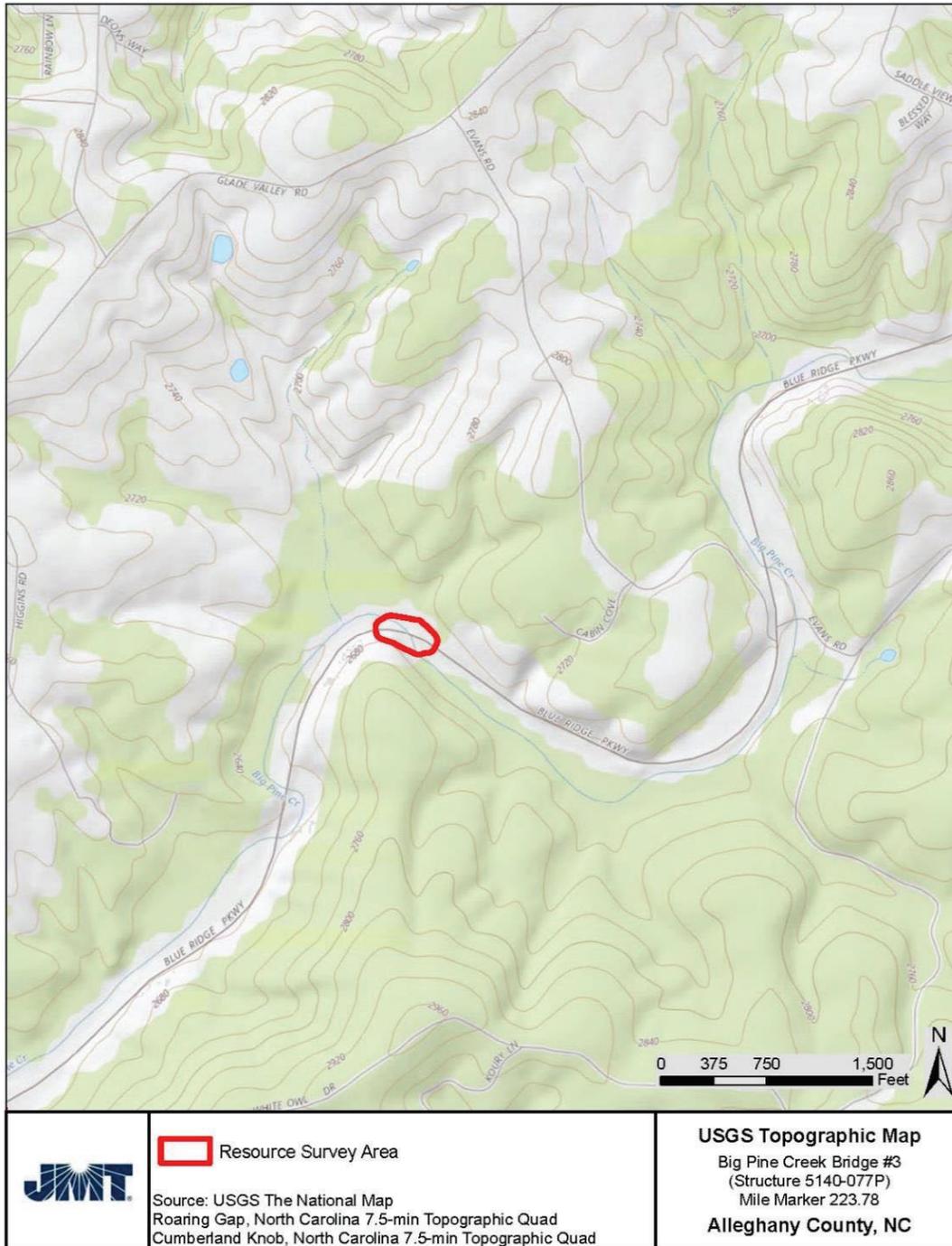
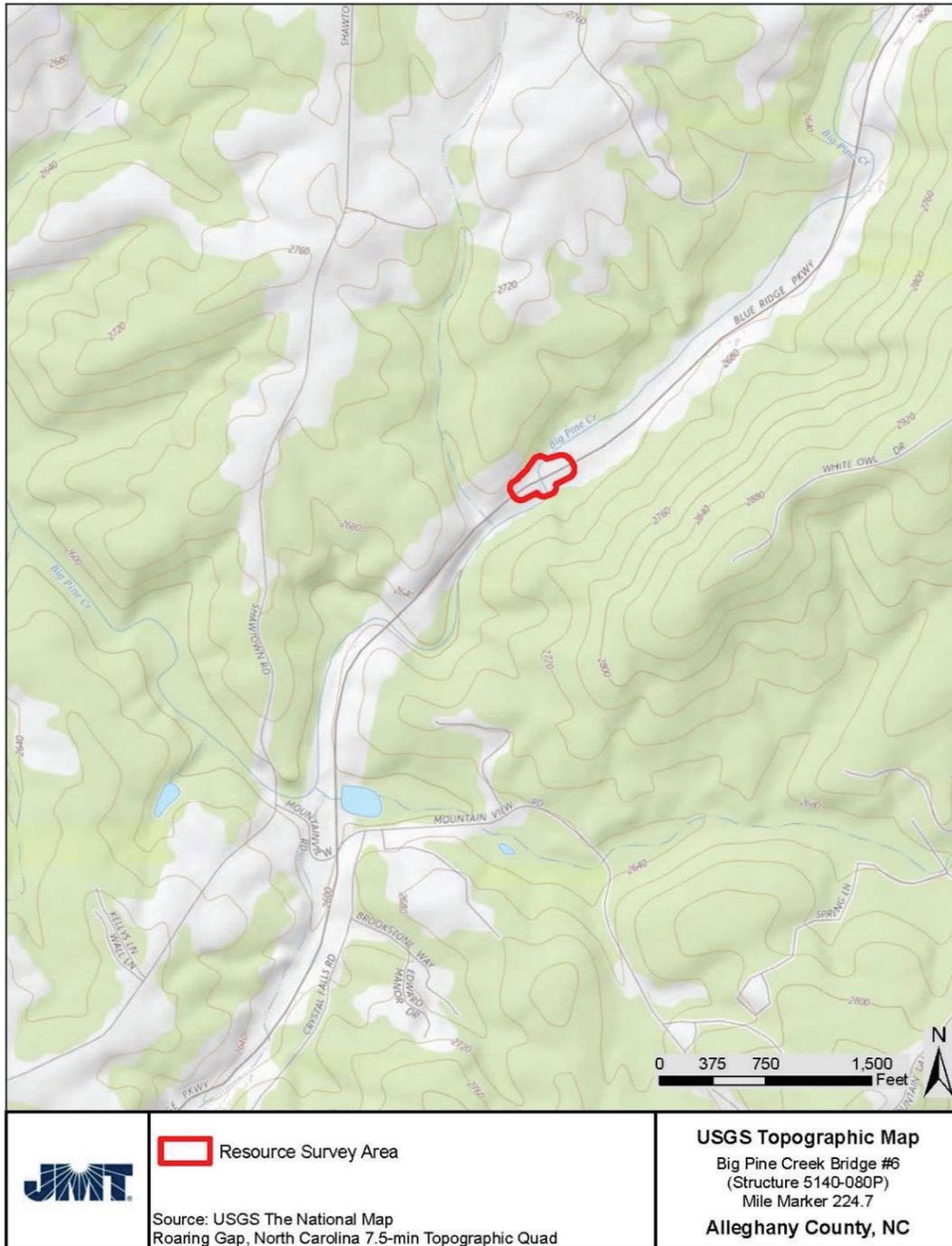


Figure 7. Big Pine Creek Bridge #6 Area of Potential Effects, USGS Map



ATTACHMENT B

Catawba Indian Nation Tribal Historic Preservation Office Policy and Procedure

Burials

Policy

1. No research designs will be considered for the sole purpose of the location and excavation of pre- contact burials.
2. There will be an ongoing and open dialogue with regard to policy and procedures affecting burials between the Tribal Historic Preservation Office (THPO) Executive Director, the Archaeology Department, and the Executive Committee of the Catawba Nation.
3. No changes or adjustments to the policy and procedures affecting burials can be made without agreement between the THPO Executive Director, the Archaeology Department, and the Executive Committee of the Catawba Nation.
4. A tract of ground will be set aside for the sole purpose of the re-interment of burials. The location of this tract of ground will not be made available to the general population. The location will be on record in the offices of the THPO Executive Director, the Archaeology Department, the Department of Planning and Development of the Catawba Nation and the Executive Committee of the Catawba Nation.

Procedure

When human burials are located during the course of other projects (i.e. construction, archaeological survey and/or excavation) the following procedures will be carried out.

1. The Catawba Indian Nation Tribal Historic Preservation Office will be notified immediately (803-328-2427 ext. 224 and ext. 226).
2. A meeting between the THPO Executive Director, the Archaeology Department and the Department of Traditional Medicine of the Catawba Nation will be called within 24 hours of the discovery.
3. The following options for action will be considered:
 - a. No action. The burial/s will be left in place and the project will proceed without regard to the disturbance to the burial/s.
 - b. The burial/s will be left in place but protected by modification to the projected construction or survey plans.
 - c. The burial/s will be excavated, measurements and photos taken but the remains will not be removed from the burial pit. The burial pit will be mapped and recorded and back filled when the work is completed.
 - d. The burial/s will be exhumed and reburied.
4. When the decision to exhume a burial/s has been made the following procedures will be followed.
 - a. A member of the Department of Traditional Medicine or Tribal Historic Preservation Office will be present during the entire exhumation process and will be in charge performing and directing those rituals and/or ceremonies appropriate.
 - b. No excavation will be done prior to notification from the Tribal historic Preservation Office that all-necessary rituals and/or ceremonies have been completed.

- c. A professionally qualified member of the Department of Archaeology will direct or perform all excavation necessary to exhume the burial.
- d. A member of the Department of Traditional Medicine of the Catawba Nation will physically remove human remains and grave goods from the burial pit when directed to do so by the Archaeological Field Director. If the Catawba Traditional Medicine Advisor is not available, another spiritual leader may be invited to perform this responsibility.
- e. Human remains will be transported from the burials site wrapped plain colored archival quality paper inside archival quality boxes by a member of the Archaeology Department or the Department of Traditional Medicine. Remains will be immediately delivered to the Archeology Department.
- f. Human remains will be stored in the Archaeology Laboratory for analysis a period not to exceed 72 hours. During this analysis period the human remains will be stored in a secured area and will not be in view of the general public.
- g. No invasive or destructive analysis methods will be employed on human remains.
- h. Destructive or invasive analysis methods must be pre-approved by the Director of THPO, the Archaeology Department and the Department of Traditional Medicine.
- i. An extension of the analysis period can only be granted after a meeting of the Director of THPO, the Archaeology Dept. and the Department of Traditional Medicine at which all parties agree.

Contact information:

Dr. Wenonah G. Haire
 Director
 Tribal Historic Preservation Office
 1536 Tom Steven
 Rock Hill South Carolina 29730

Caitlin Rogers
 Archaeology Dept.
 Tribal Historic Preservation Office
 1536 Tom Steven Road
 Rock Hill, South Carolina 29730

803-328-2427 ext. 224

803-328-2427 ext. 226

EBCI Treatment Guidelines for Human Remains and Funerary Objects (Survey, Excavation, Laboratory/Analysis, and Curation Guidelines)

It is the wish of the EBCI that whenever possible, human interments be left in situ, unstudied, and protected from current and future disturbance. However, when these parameters cannot be met, the following guidance shall apply:

Archeological Surveys: The EBCI requests that in the event human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered, no photographs of such items be taken. Detailed drawings are permissible, however.

Excavations: The EBCI requests that in the event human remains, funerary objects, sacred objects, or objects of cultural patrimony are encountered, no photographs of such items be taken. Detailed drawings are permissible, however. Also, if after consultation with the SHPO and culturally affiliated, federally recognized tribes, the lead agency determines that the excavation of these items is required, the EBCI requests that only the lead archaeologist and a physical anthropologist participate in the removal of these items. The EBCI also requests that, in the case of full excavation of human remains, the entire burial matrix be removed and curated for future reburial. Lastly, EBCI requests to be sent the proposals and research designs that will be provided to the SHPO and State Archaeologist for review and approval prior to the initiation of any excavation activities.

Laboratory Treatment/Analysis: The EBCI requests that any human remains, funerary objects, sacred objects, and/or objects of cultural patrimony not be unnecessarily washed or cleaned, and that only dry brushing be consistently used. Again, we request that no photographs be taken of such objects for documentation or curation purposes, however detailed drawings are acceptable. Furthermore, in terms of human remains, we require that no destructive analyses be permitted, and we would like to have discussions and agreements about the kind of analyses, if any, that will be permitted.

Curation: The EBCI requests that in all cases where it is remotely feasible, that human remains, associated funerary objects, and the burial matrix be stored together. Furthermore, we ask that these type of objects, as well as sacred objects and objects of cultural patrimony, be removed from public viewing or public handling and that researchers not automatically be granted access to such items. Research requests should be submitted to the EBCI Cultural Resources office in the event someone wishes to study such items.

Avoidance/Preservation in Place/Excavation/Reburial: Remember, our preference is always avoidance/preservation in place. Unless there are very good reasons as to why this is not possible, we will not immediately enter into discussions of excavation, removal, study, reburial, etc. That being said, if remains must be moved, it is always our preference that they be out of the ground for only as long as it takes to move them to their new resting place, which should be as close to the original resting place as possible (within line of sight). Sometimes, we do allow minimal study of the remains, especially if it can be done with the remains in situ. If longer study is needed, we prefer a field lab to sending them off some distance to be studied in a lab. The bottom line is that the less time they are exposed to the air, the better it is for the people involved and the Tribe. If reburial is the only option, the most efficient/time sensitive reburial process is preferred. Also, capping of the burials is not typically problematic, especially if there is ample fill dirt between the individual and the foreign capping material.