



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**South Carolina**

July 17, 2023

1835 Assembly Street, Suite 1270  
Columbia, South Carolina 29201  
803-765-5411  
803-253-3989

In Reply Refer To:  
HDA-SC

Mr. Chad Long  
Director Environmental Services Office  
South Carolina Department of Transportation (SCDOT)  
955 Park Street, P.O. Box 191  
Columbia, South Carolina 29202

Dear Mr. Long:

The South Carolina Department of Transportation (SCDOT) recently submitted for FHWA's approval, a Categorical Exclusion (CE) to replace the existing SC 215 bridge over Fairforest Creek in Union County, South Carolina (Federal Project Number P041236). The FHWA finds that the project will not induce significant impacts and will not adversely affect threatened or endangered species or cause adverse impacts to historic resources. Therefore, a CE determination under 23 CFR § 771.117(c)(28) is appropriate for this project. Enclosed is the approved CE for the project.

SCDOT is authorized to proceed with further project development. Please ensure that the project commitments made during the NEPA process are included in the project construction proposal and ultimately carried out. Please address any questions to Mr. J. Shane Belcher at [jeffrey.belcher@dot.gov](mailto:jeffrey.belcher@dot.gov) or 803-253-3187.

Sincerely,

(for) Emily O. Lawton  
Division Administrator

Enclosure

cc: Will McGoldrick, SCDOT Alternative Delivery NEPA Coordinator



**NON-PROGRAMMATIC  
CATEGORICAL EXCLUSION**

Project ID No. P041236  
Route: Interstate 95 and Interstate 26

County: Union  
Date: June 28, 2023

To: Federal Highway Administration

From: Will McGoldrick, Alternative Delivery Environmental Coordinator; SCDOT

Description: S-215 Bridge over Fairforest Ck

**(SEE ATTACHMENT)**

The Department proposes to replace the S-215 load restricted bridge over Fairforest Creek in Union county, South Carolina. The Department's environmental review has determined the effects of this project are as described in the "Programmatic Agreement Between the Federal Highway Administration, South Carolina Division and the South Carolina Department of Transportation Regarding Approval of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects" dated April 26, 2021, and is in compliance with the required findings reflected below. The project has been assessed for possible effects on the human and natural environment with a determination that no significant environmental impact will occur. The class of action and impact determination documented by this statement would qualify this project as a categorical exclusion under 23 CFR 771.117(c)(28) for bridge rehabilitation, reconstruction, or replacement...etc., where the state can assume CE responsibilities but does require FHWA approval.

Based on an analysis of suitable habitat and observations of the listed species in the project area, the proposed action will have no effect on threatened or endangered species or critical habitats currently listed by the U.S. Fish and Wildlife Service for Union County.

The project will impact waters of the U.S. and will therefore require a permit or certification authorization under Section 404 and 401 of the Clean Water Act (CWA). Coordination with the US Coast Guard also determined that a USCG permit would not be required.

In accordance with Section 106 of the National Historic Preservation Act, it has been determined that no historic properties would be affected by the proposed undertaking.

7/17/2023

Date

7/17/2023

Date

**Will McGoldrick**

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Date: 2023.07.17 11:01:24 -04'00'

South Carolina Department of Transportation

Federal Highway Administration



## NON-PROGRAMMATIC CATEGORICAL EXCLUSION

Project No. P041236

County: Union

Date: May 2023

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To: Federal Highway Administration

From: Will McGoldrick, Alternative Delivery NEPA Coordinator, SCDOT

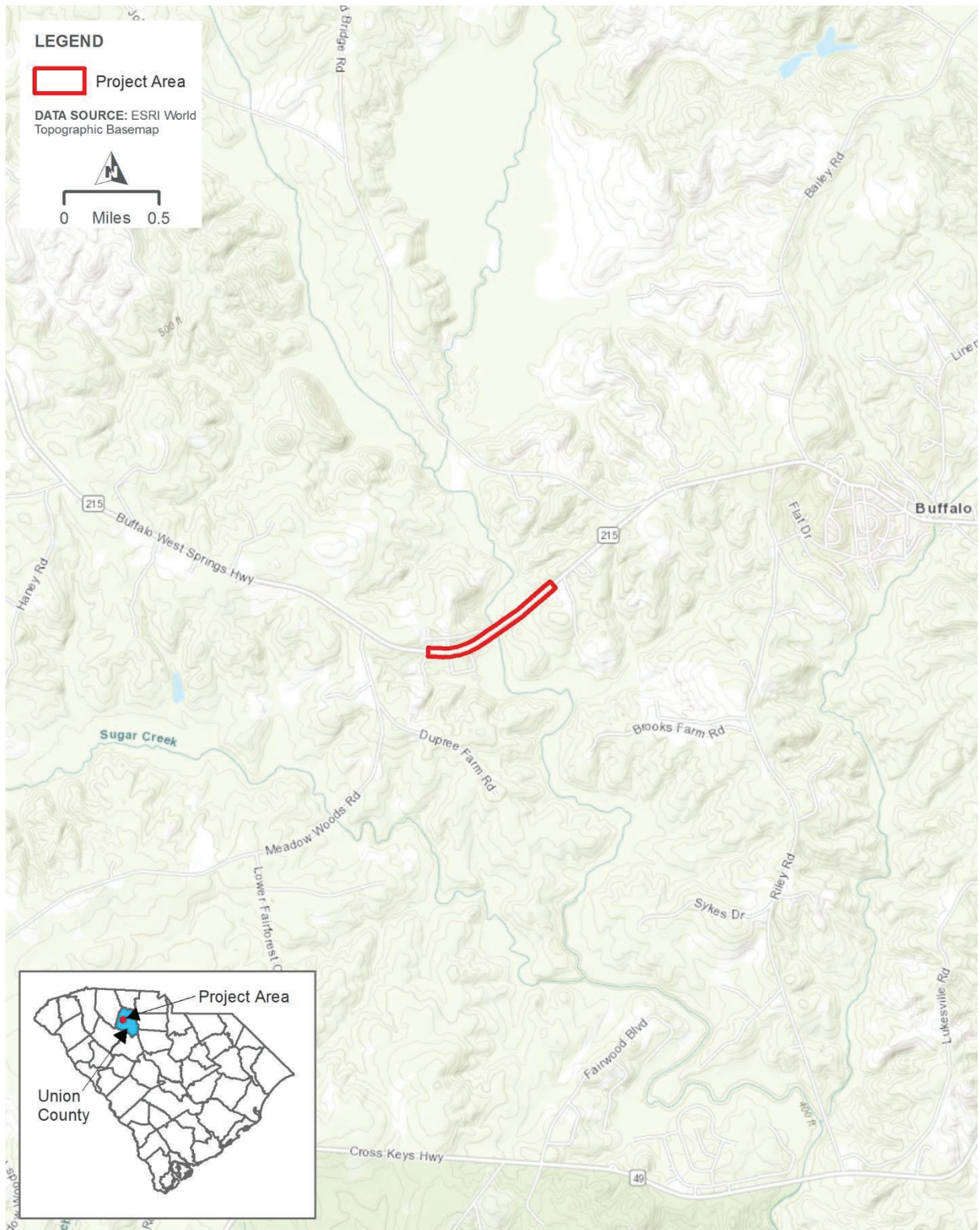
Project: Proposed SC 215 Bridge Replacement Over Fairforest Creek

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**Project Description:** The South Carolina Department of Transportation (SCDOT) proposes to replace the SC Route 215 bridge over Fairforest Creek in Union County, South Carolina (Figure 1). SC 215 is a two-lane rural highway that connects the small communities of Buffalo and Glenn Springs to the City of Union, South Carolina. The existing bridge was constructed in 1930 and improved in 1958; the facility includes a 284-foot-long bridge consisting of a two-lane roadway with 12-foot travel lanes and eight-foot outside shoulders. Existing right-of-way along the facility varies from 50 to 100 feet along the roadway and 150 feet around the bridge.

The scope of the project includes replacing the existing 284-foot by 31.5-foot bridge over Fairforest Creek with a new bridge. The proposed project would include a new two-lane bridge that would include two 12-foot travel lanes with eight-foot shoulders on both sides. It is anticipated that the new bridge would be located adjacent to the existing alignment to maintain traffic on SC 215 during construction.

**Purpose and Need:** The purpose of this project is to correct the load restriction placed on it, as well as restore all bridge components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition. The bridge is currently open to traffic and would remain open to traffic during construction. The existing bridge is considered structurally deficient due to the deteriorating integrity of the bridge structure. Traffic count data indicates that the 2021 average daily traffic in the project area was 2,100 vehicles per day (vpd) and is expected to increase to 3,200 vpd by 2044.



**Figure 1. Project Vicinity**

**Project Funding:** Funding for the proposed project is included in SCDOT’s 2021-2027 State Transportation Improvement Program (STIP) which identifies \$2,050,000 for preliminary engineering and \$55,691,000 for construction.<sup>1</sup> This bridge replacement project is one of many included in SCDOT’s CLRB bridge bundle package 17.

**Findings:** The Department’s environmental review has determined the effects of this project are as described in the “Programmatic Agreement Between the Federal Highway Administration, South Carolina Division and the South Carolina Department of Transportation Regarding Approval of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects” dated April 26, 2021, and is in compliance with the required findings reflected below. The proposed project has been assessed for possible effects on the human and natural environment with a determination that no significant environmental impact will occur. The class of action and impact determination documented by this statement would qualify this project as a categorical exclusion under 23 CFR 771.117(c), for bridge replacement.

A determination along with the field observations conclude that there is low potential for the presence of any federally protected species due to the lack of suitable habitat and scope of improvements. The proposed study has been evaluated with regard to the Farmland Protection Policy Act (FPPA) of 1981. However, there are no soils classified as prime farmland within the project area and no active farming activities are currently occurring in proximity to the project. In consultation with the State Historic Preservation Officer (SHPO), as appropriate, the proposed project would not adversely affect, with conditions, any properties identified as being on or eligible for inclusion in the National Register of Historic Places (NRHP) under 36 CFR 800. No Section 4(f) or Section 6(f) properties were identified within the project boundaries. Based on preliminary design, the project would impact jurisdictional waters of the U.S. (WOUS), and a SCDOT General Permit would be required.

It is anticipated that the project may result in the relocation of a garage/outbuilding. If displacements are found to be necessary based on final design, all acquisitions and relocations would be conducted in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and all relocation resources would be made available without discrimination.

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Date

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Alternative Delivery  
NEPA Coordinator

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Date

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Federal Highway Administration

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<sup>1</sup> SCDOT. 2023. County Projects Summary Report. STIP 2021-2027. Available at [http://206.74.144.42/ESTIP/downloads/Union.html?\\_id=1676907679428](http://206.74.144.42/ESTIP/downloads/Union.html?_id=1676907679428) (accessed March 1, 2023).

Date: 06/21/2023

**SCDOT**  
NEPA ENVIRONMENTAL COMMITMENTS FORM



Project ID : P041236 County : Union District : District 4 Doc Type: Non-PCE Total # of Commitments: 9

Project Name: SC 215 (Buffalo West Springs Hwy) Bridge Replacement over Fairforest Creek

The Environmental Commitment **Contractor Responsible** measures listed below **are to be included in the contract and must be implemented**. It is the responsibility of the Program Manager to make sure the Environmental Commitment **SCDOT Responsible** measures are adhered to. If there are questions regarding the commitments listed please contact:

**CONTACT NAME:** Michael Pitts

**PHONE #:** (803)-737-2566

**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Water Quality**

NEPA Doc Ref: Page 5, Paragraph 2

Responsibility: CONTRACTOR

The contractor will be required to minimize possible water quality impacts through implementation of BMPs, reflecting policies contained in 23 CFR 650B and the Department's Supplemental Specification on Erosion Control Measures (latest edition) and Supplemental Technical Specifications on Seeding (latest edition). Other measures including seeding, silt fences, sediment basins, etc. as appropriate will be implemented during construction to minimize impacts to water quality.

☐ Special Provision

**Migratory Bird Treaty Act**

NEPA Doc Ref: Page 8, Paragraph 2

Responsibility: CONTRACTOR

The federal Migratory Bird Treaty Act, 16 USC § 703-711, states that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The South Carolina Department of Transportation (SCDOT) will comply with the Migratory Bird Treaty Act of 1918 in regard to the avoidance of taking of individual migratory birds and the destruction of their active nests.

The contractor shall notify the Resident Construction Engineer (RCE) at least four (4) weeks prior to construction/demolition/maintenance of bridges and box culverts. The RCE will coordinate with SCDOT Environmental Services Office (ESO), Compliance Division, to determine if there are any active birds using the structure. After this coordination, it will be determined when construction/demolition/maintenance can begin. If a nest is observed that was not discovered after construction/demolition/maintenance has begun, the contractor will cease work and immediately notify the RCE, who will notify the ESO Compliance Division. The ESO Compliance Division will determine the next course of action.

The use of any deterrents by the contractor designed to prevent birds from nesting, shall be approved by the RCE with coordination from the ESO Compliance Division. The cost for any contractor provided deterrents will be provided at no additional cost to SCDOT.

☐ Special Provision


**Stormwater**

NEPA Doc Ref: Page 6, Paragraph 2

Responsibility: SCDOT

Stormwater control measures, both during construction and post-construction, are required for SCDOT projects with land disturbance and/or constructed in the vicinity of 303(d), TMDL, ORW, tidal, and other sensitive waters in accordance with the SCDOT's MS4 Permit. The selected contractor would be required to minimize potential stormwater impacts through implementation of construction best management practices, reflecting policies contained in 23 CFR 650 B and SCDOT's Supplemental Specifications on Seed and Erosion Control Measures (latest edition).


☐ Special Provision

Project ID : <input type="text" value="P041236"/>	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	
<b>ENVIRONMENTAL COMMITMENTS FOR THE PROJECT</b>		

<b>General Permit</b>	NEPA Doc Ref: <input type="text" value="Page 5, Paragraph 2"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>Impacts to jurisdictional waters will be permitted under a Department of the Army Section 404 permit from the U.S. Army Corps of Engineers. Based on preliminary design, it is anticipated that the proposed project would be permitted under SCDOT's General Permit (GP). The required mitigation for this project will be determined through consultation with the USACE and other resource agencies.</p>		
<input type="checkbox"/> Special Provision		

<b>Cultural Resources</b>	NEPA Doc Ref: <input type="text" value="Page 6, Paragraph 2"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>The contractor and subcontractors must notify their workers to watch for the presence of any prehistoric or historic remains, including but not limited to arrowheads, pottery, ceramics, flakes, bones, graves, gravestones, or brick concentrations during the construction phase of the project, if any such remains are encountered, the Resident Construction Engineer (RCE) will be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Archaeologist directs otherwise.</p>		
<input type="checkbox"/> Special Provision		

<b>Floodplains</b>	NEPA Doc Ref: <input type="text" value="Page 6, Paragraph 3"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>The Engineer of Record will send a set of final plans and request for floodplain management compliance to the local County Floodplain Administrator.</p>		
<input type="checkbox"/> Special Provision		

Project ID : <input type="text" value="P041236"/>	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	
<b>ENVIRONMENTAL COMMITMENTS FOR THE PROJECT</b>		

<b>Non-Standard Commitment</b>	NEPA Doc Ref: <input type="text" value="Page 5, Paragraph 2"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<input type="text" value="NavGP"/>		
<p>Within Union County, Fairforest Creek is considered a navigable waterway. The project would require a Navigable Waters General Permit (NavGP) from the South Carolina Department of Health and Environmental Control (SCDHEC).</p>		
<input type="checkbox"/> Special Provision		

<b>Displacements</b>	NEPA Doc Ref: <input type="text" value="Page 9, Paragraph 1"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<p>The SCDOT will acquire all new right-of-way and process any relocations in compliance with the Uniform Relocation Assistance and Real Property Acquisition policies Act of 1970, as amended (42 U.S. C. 4601 et seq.). The purpose of these regulations is to ensure that owners of real property to be acquired for Federal and federally-assisted projects are treated fairly and consistently, to encourage and expedite acquisition by agreements with such owner, to minimize litigation and relieve congestion in the courts, and to promote public confidence in Federal and federally-assisted land acquisition programs.</p>		
<input type="checkbox"/> Special Provision		

<b>Non-Standard Commitment</b>	NEPA Doc Ref: <input type="text" value="USCG Coordination"/>	Responsibility: <input type="text" value="CONTRACTOR"/>
<input type="text" value="USCG Permit Exclusion"/>		
<p>Upon completion of the project, SCDOT will submit photographs and as-built drawings of both plan and elevation views of the bridge to the USCG. Plans will be in the standard 8.5 x 11 inch format. The drawings, along with the Completion Report Form (4599), will indicate the vertical clearance from ordinary high water to the lowest portion of the bridge and horizontal clearance, pier face to pier face, or bank to bank, in the main navigation span.</p>		
<input type="checkbox"/> Special Provision		

## **SUPPORTING DOCUMENTATION**

### **Alternatives Analysis**

Various alternatives were evaluated for the project that included typical section variations, construction staging scenarios, and bridge structure options. Alternatives were assessed for constructability, impacts to the public, construction costs, construction duration, environmental impacts, and impacts to existing utilities. Based on the evaluations, a Preferred Alternative was identified.

### ***No-Build Alternative***

The No-Build Alternative would maintain existing conditions and would not correct the current load restrictions or the components of the bridge structure that are in poor condition. Therefore, the No-Build Alternative would not meet the purpose and need of the project.

### ***Build Alternatives***

Build alternatives considered for the project included shifting the bridge onto new alignment to each side of the bridge, as well as construction staging methods.

### ***Preferred Alternative***

Based on the evaluations, the Preferred Alternative for the project is to construct the new bridge to the southeast, approximately 43 feet downstream of the existing structure. The bridge would consist of two 12-foot travel lanes with eight-foot shoulders on both sides of the bridge. To meet current design standards, the project would utilize larger spans within the bridge section and the roadway grade would be raised to accommodate the larger bridge structure. The project would not substantially change the vertical alignment or add additional travel lanes. The existing bridge would remain open during construction of the new bridge.

### **Noise Analysis**

Title 23 of the Code of Federal Regulations (CFR), Part 772 (23 CFR 772), and the SCDOT Traffic Noise Abatement Policy dated February 24, 2023 (Noise Policy), contain the Federal Highway Administration (FHWA) and SCDOT traffic noise standards for completing noise analysis on transportation projects.<sup>2</sup> Per the Noise Policy, a noise study is not required if the project does not result in a substantial horizontal alteration where the project halves the distance between the traffic noise source and the closest receptor between the existing condition and build condition. In addition, the project would not substantially change the vertical alignment or add additional travel lanes. Therefore, a detailed noise analysis is not warranted as the project is essentially replacing existing conditions, and not expected to result in any potential traffic noise impacts.

### **Air Quality/Mobile Source Air Toxics (MSATs)**

The Clean Air Act (CAA) requires that transportation plans, programs, and projects in nonattainment or maintenance areas that are funded or approved by FHWA be in conformity with the State Implementation Plan (SIP). The proposed project is not located in a nonattainment area, so conformity does not apply.

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<sup>2</sup> SCDOT. 2023. SCDOT Traffic Noise Abatement Policy. Available at [https://www.scdot.org/business/pdf/EnvToolShed/TrafficNoise/Approved%20Noise%20Policy\\_2\\_24\\_2023.pdf](https://www.scdot.org/business/pdf/EnvToolShed/TrafficNoise/Approved%20Noise%20Policy_2_24_2023.pdf) (accessed March 3, 2023).

This project has been determined to generate minimal air quality impacts for CAA criteria pollutants and has not been linked with any special Mobile Source Air Toxic (MSAT) concerns. As such, this project would not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, U.S. Environmental Protection Agency (EPA) regulations for vehicle engines and fuels would cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's Motor Vehicle Emissions Simulator model forecasts a combined reduction of 76 percent in the total annual emission rate for the priority MSAT from 2020 to 2060 while vehicle-miles of travel are projected to increase by 31 percent. This would both reduce the background level of MSAT and the possibility of minor MSAT emissions from this project.<sup>3</sup>

### **Wetlands/Permits**

The project area was evaluated to determine the potential presence of wetlands and streams. This evaluation included a review of available data, specifically the National Wetland Inventory maps, soil surveys, U.S. Geological Survey topographic quadrangles, and field reconnaissance. Fairforest Creek, two additional streams, and one wetland feature were identified within the project area. Approximately 130 linear feet of Stream 2 and Stream 3 would be impacted by the project. The proposed project would be designed to avoid and minimize impacts to wetlands and streams to the extent possible. Permits would be obtained from the appropriate state and federal agencies for any proposed impacts to jurisdictional Waters of the US (WOUS). A SCDOT General Permit is anticipated.

Within Union County, Fairforest Creek is considered a navigable waterway. The project would require a Navigable Waters General Permit (Nav GP) from the South Carolina Department of Health and Environmental Control (SCDHEC). A U.S. Coast Guard (USCG) Permit Exclusion Checklist is included in Appendix F.

### **Water Quality/Floodplains**

The project area is located within the Fairforest Creek watershed (03050107-04). This watershed is located in Spartanburg and Union Counties and consists primarily of Fairforest Creek and its tributaries. There are a total of 250.7 miles of streams and 417.6 acres of lake waters in this watershed, all classified as freshwater. There are five monitoring stations along Fairforest Creek, the closest of which is approximately 8.2 miles downstream of the project area (BF-008). At BF-008, aquatic life uses are fully supported based on macroinvertebrate community data; however, there are significant increasing trends in five-day biological oxygen demand and decreasing trends in dissolved oxygen concentration. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions.<sup>4</sup> Please see a copy of the Watershed and Water Quality Information in Appendix B.

The contractor would be required to minimize possible water quality impacts through implementation of best management practices, reflecting policies contained in 23 CFR 650B and SCDOT's Supplemental Specification on Erosion Control Measures (latest edition) and Supplemental Technical Specifications on

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<sup>3</sup> FHWA. 2023. Updated Interim Guidance on Mobile Source Air Toxic Analysis. Available at [https://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/index.cfm](https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm) (accessed March 2, 2023).

<sup>4</sup> SCDHEC. 2007. Watershed 03050107-04 (Fairforest Creek). Available at <https://scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/50107-04.pdf> (accessed March 3, 2023).

Seeding (latest edition). Other measures including seeding, silt fences, sediment basins, etc. as appropriate would be implemented during construction to minimize impacts to water quality. A Bridge Replacement Scoping Risk Assessment Form can be found in Appendix C.

Stormwater from the bridge would be conveyed to Fairforest Creek through a series of drainage structures that could potentially introduce additional contaminants to this system. However, the resulting runoff would not be anticipated to be significantly different than existing conditions.

The Fairforest Creek both upstream and downstream of the SC 215 bridge is identified as Zone A (areas of the 100-year floodplain where no base flood elevations or flood depths have been determined), on Union County Flood Insurance Rate Map #45087C0200D, effective 08/02/2011. The proposed project is not expected to be a significant or longitudinal encroachment as defined under 23 CFR 650A and is expected to result in a no-rise certification (Appendix D). The Engineer of Record will send a set of final plans and request for floodplain management compliance to the local county Floodplain Administrator.

### **Cultural Resources**

An intensive cultural resources survey of the proposed SC 215 bridge replacement over Fairforest Creek was completed in February 2023. The archaeological area of potential effect (APE) is 100 feet from the road centerline (200 feet total) and 1,500 feet from either end of the bridge. The architectural APE extends 300 feet outside of the archaeological APE. The fieldwork for both surveys was conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (Appendix A).

### ***Archaeological Resources***

Background research was conducted on ArchSite in January 2023 to identify resources within the APE that were previously recorded, listed on the NRHP, or eligible for listing on the NRHP. No previously identified archaeological sites or historic architectural resources are located near the project area. An intensive archaeological survey was conducted in February 2023, which identified two non-eligible archaeological sites.

#### **Site 1**

Site 1 consists of a 6.5-foot by 6.5-foot brick pumphouse located to the north of SC 215 in a wooded area and was considered for the NRHP under Criterion D, its ability to add significantly to our understanding of the history of the region. Additional investigation of Site 1 is unlikely to generate information beyond the period of use (early to middle twentieth century) and the presumed function (pumphouse). The site cannot generate additional important information concerning past settlement patterns or land-use practices in Union County. Therefore, Site 1 is recommended not eligible for the NRHP and warrants no further management consideration (Appendix A).

#### **Site 2**

Site 2 contains a portion of the remnants of the old alignment of SC 215 and two bridge piers from the former bridge across Fairforest Creek. Site 2 was considered for the NRHP under Criterion A, its ability to be associated with events that have made a significant contribution to the broad patterns of our history, and under Criterion C, its ability to embody the distinctive characteristics of a type, period, or method of construction. The former road alignment, like modern-day SC 215, passes through rural areas interspersed with water crossings and is not unique; therefore, Site 2 is recommended not eligible for the NRHP under Criterion A. Site 2 reflects a common road and bridge type in South Carolina and the only remaining materials of the road and bridge are the two stone bridge support piers. Site 2 was not found to embody the

distinctive characteristics of a type, period, or method of construction, and does not possess significance for its engineering or materials. Therefore, Site 2 is recommended not eligible for inclusion on the NRHP under Criterion C (Appendix A).

### ***Architectural Resources***

Investigators conducted the architectural resources survey in February 2023 and recorded one historic-age (50 years of age or older; constructed in 1973 or before) architectural resource (SHPO Survey Site Number 1440). The recorded resource is a transportation resource (highway bridge) originally built in 1930 and widened in 1958 using a cast-in-place concrete deck. The original 1930 structure is supported by cast-in-place concrete piers, each comprising two square “mushroom head” columns with concrete caps, except for the two piers supporting the river span—those two piers, on the north and south banks, are also cast-in-place concrete, but feature caps on circular piles, and an arched opening with closed concrete spandrels. When the structure was widened in 1958, the piers supporting the new portions of the concrete slab (on the eastern and western sides of the 1930 structure) included concrete caps on steel H-beams with cast concrete footings. The bridge is recommended not eligible for listing in the NRHP due to a lack of historic and/or engineering significance under Criteria A–D.

No other historic-age architectural resources were present in the architectural APE.

### **Section 4(f) Properties**

No Section 4(f) properties were identified within the project boundaries.

### **Section 6(f) Properties**

No Section 6(f) properties were identified within the project boundaries.

### **Threatened and Endangered Species**

Pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, the project area was evaluated for the potential presence of any federally protected species currently listed for Union County. A list of protected species for Union County was obtained from the U.S. Fish and Wildlife Service (USFWS). In addition, the S.C. Rare, Threatened, and Endangered Species Inventory was evaluated to determine any previously known occurrences of protected species within the project area. Lastly, field observations were conducted within the project area during the various extensive field investigations in February 2023 (Appendix B).

According to the Heritage Trust database of endangered, threatened, and rare species, there are no occurrences of any federally listed species in the vicinity of the Study Area. The open grass areas, and road and transmission rights-of-way offers a variety of flowering plants for nectar, which could include plants from the milkweed genus (*Asclepias* spp.). Potential habitat for the monarch butterfly was identified within the Study Area for migrating and breeding adults; however, neither Section 7 of the Endangered Species Act nor the implementing regulations for Section 7 contain requirements for federal agencies in relation to candidate species. No individuals of monarch butterflies were observed within the Study Area during the field survey. Tricolored bat and northern long eared bat habitat was surveyed and identified within the forested areas on site as well as under the SC-215 bridge; however, there was no evidence of bat use. A formal survey for tricolored bat and northern long eared bat was not conducted.

According to the USFWS Environmental Conservation Online System (ECOS), there are no records of federally listed species occurring in Union County, South Carolina and the range for northern long-eared bat does not extend into Union County. A map of the northern long-eared bat range in South Carolina is

attached to this report.

Based on the lack of suitable habitat and/or no observations of the listed species in the vicinity of the Study Area, results of the threatened and endangered species study indicate that the proposed action will not affect any threatened or endangered species or critical habitats currently listed by the USFWS.

The federal Migratory Bird Treaty Act (MBTA) of 1918, 16 U.S. Code 703-711, states that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The SCDOT would comply with the MBTA in regard to the avoidance of taking of individual migratory birds and the destruction of their active nests.

The contractor shall notify the Resident Construction Engineer (RCE) at least four weeks prior to the construction/demolition/maintenance of bridges and box culverts. The RCE would coordinate with SCDOT Environmental Services Office (ESO), Compliance Division, to determine if there are any active birds using the structure(s). After coordination with the ESO Compliance Division, it would be determined when construction/demolition/maintenance can begin. If a nest is observed that was not discovered after construction/demolition/maintenance has begun, the contractor would cease work and immediately notify the RCE, who would notify the ESO Compliance Division. The ESO Compliance Division would determine the next course of action.

The use of any deterrents by the contractor designed to prevent birds from nesting shall be approved by the RCE with coordination from the ESO Compliance Division. The cost for any contractor provided deterrents would be provided at no additional cost to SCDOT.

### **Socio-Economic**

The U.S. Census data was evaluated to determine the demographic composition of the proposed project area.<sup>5</sup> The census data is summarized in Table 1.

**Table 1. Summary of U.S. Census Data**

<b>Demographic Characteristic</b>	<b>South Carolina</b>	<b>South Carolina Percentage</b>	<b>Union County</b>	<b>Union County Percentage</b>
Total Population	5,078,903		26,080	
White	3,334,961	65.7	17,714	64.9
Black/African American	1,328,691	26.2	8,184	30.0
Hispanic Origin	329,424	6.0	478	1.8
Population below Poverty Line	718,345	14.5	5,614	20.9

Source: U.S. Census Bureau (USCB) 2017-2021 American Community Survey 5-Year Estimates (2021 ACS)

### ***Environmental Justice***

The proposed project was evaluated in accordance with Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations). As summarized in Table 1, the demographics of Union County include an approximate 35.1% total minority population as compared

<sup>5</sup> U.S. Census Bureau (USCB). 2022. Explore Census Data. [Online Database]. Available at <https://data.census.gov/> (accessed March 6, 2023).

with 34.3% in South Carolina. While Union County as a whole has a higher percentage than SC for population living below the poverty line, the US Economic Development Administration Census Poverty Status Viewer does not identify the project area as a High Poverty Area or Possible High Poverty Area<sup>6</sup>. These findings are consistent with the field observations of the immediate project area.

The project is expected to cause only one potential relocation; however, it is not expected to change neighborhood or community cohesion, school districts, police and fire protection, emergency medical services, highway traffic and safety, minority or other social groups, or permanently affect existing travel patterns and accessibility. As such, no minority or low-income populations have been identified that would be adversely impacted by the proposed project as determined above. Therefore, the project is not expected to specifically benefit, harm, or disproportionately impact, any social group, including low-income, elderly, handicapped, non-drivers, minority, or ethnic groups.

### ***Communities***

It is not anticipated that the proposed action would result in any appreciable change in local population and employment patterns in the area. Right-of-way acquisitions from adjacent properties would be minimal. Property owners would be compensated for any right-of-way acquired and any damages to remaining property, in accordance with SCDOT policy and the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended.

The contractor would be responsible for maintaining two-way traffic along SC 215 during construction of the new bridge. However, some minor impacts to the surrounding communities, residents, and commuters could occur during construction. Construction of the project would last approximately 18 months. Access for emergency services would not be restricted by road closure(s) for any facility within the project area.

### **Displacements**

It is anticipated that the proposed project may result in the relocation of a garage/outbuilding. The project would also require the relocation of existing utilities, including a waterline and telecommunications line. If the final design results in additional impacts, then all acquisition and relocation, if any, would be conducted in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and all relocation resources would be made available to displacees without discrimination.

### **Farmlands**

The proposed project has been evaluated with regard to the FPPA of 1981. Farmland can be prime farmland, unique farmland, or farmland of statewide or local importance. Prime farmland soils are those that have characteristics favorable for economic production of sustained high yields of crops. These soils may or may not be presently used as cropland. Conversely, land that is presently used as cropland may or may not be prime farmland. The project area contains no soils classified as prime farmland, unique farmland, or farmland of statewide or local importance and there are no active agricultural uses or farming activities within a mile of the project.

### **Land Use**

The project is located in a rural, wooded area with very sparse residential and commercial development. Land use in the area is primarily wooded and natural. The project is anticipated to be constructed adjacent

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<sup>6</sup> [Census Poverty Status Viewer \(ACS19\)](#), accessed February 20, 2023

to the existing bridge, with only minor right of way acquisition; therefore, is not expected to modify existing land uses or change the timing or density of development in the area.

### **Phase I Environmental Site Assessment (Phase I ESA)**

Due to the rural and remote location of the project, a Phase I ESA was not conducted.

### **Public Involvement**

A certified letter was sent to residents within the limits of the project in August 2022, providing property owners notice of Eminent Domain for SCDOT personnel to complete engineering and environmental surveys taking place in the local area.

A [project website](https://scdot-environmental-project-site-scdot.hub.arcgis.com/pages/clrb-package-17) (<https://scdot-environmental-project-site-scdot.hub.arcgis.com/pages/clrb-package-17>) was developed which provided the location and description of the project, the need for the bridge replacement, contact information for specific project questions or concerns and a link to a comment form. A public comment period started February 3, 2023 and extended to March 7, 2023.

Project postcards were mailed to nine postal routes within the vicinity of the project, reaching approximately 3,986 homes. The postcard provided information on the project and a link to the project website.

Of the 8 comments that were submitted, all fell within five key themes. These themes included design comments, traffic impact questions, specific right-of-way concern, surrounding roadway concerns, and general support for the recommended preferred alternative. The comments were evenly spread across the topics.

No comments were received showing concern regarding the general project design.

Appendix A: Cultural Resources Short Form Report

Appendix B: Natural Resources Tech Memo

Appendix C: Bridge Replacement Scoping Risk Assessment Form

Appendix D: Floodplain Checklist

Appendix E: Public Involvement Materials

Appendix F: USCG Permit Exclusion Checklist

## Appendix A: Cultural Resources Screening Form



# Cultural Resources Project Screening Form

File Number:  PIN:  Route:  County:

Project Name:

Type 1: Resurfacing, installation of fencing, signs, pavement markings, traffic signals, passenger shelters, railroad warning devices, installation of rumble strips, and landscaping

Project Type

Type 2: Bridge replacements on alignment, construction of bicycle/pedestrian facilities, and intersection improvements

Type 3: Projects that do not fall into Type 1 and Type 2 categories (e.g. road widening)

Comments

This project replaces the bridge carrying SC 215 (Buffalo-West Springs Hwy) over Fairforest Creek. The archaeological area of potential effect (APE) is 100 feet from the road centerline (200 feet total) and 1,500 feet from either end of the bridge. The architectural APE extends 300 feet outside of the archaeological APE. HDR conducted background research and a cultural resources field survey in February 2023 and created a short form report detailing the project (attached). The survey consisted of a pedestrian reconnaissance of the entire archaeological APE augmented by the excavation of shovel test pits (STPs). A total of 15 of 61 STP locations were excavated. STPs were not excavated due to slope, wetlands, manicured lawn, fenced pastures or ground disturbance. All STPs were negative for cultural material. Two archaeological sites were identified within the archaeological APE. Site 38UN1862 consists of an early-mid 20th century brick pumphouse. Site 38UN1863 contains the remnants of an old alignment of SC 215 and two pre-1929 bridge piers. No artifacts were found in association with either site. Neither site is eligible for NRHP. The current bridge was the only new architectural resource recorded (SHPO Site No. 1440). The 11-span concrete tee beam bridge was built in 1929 and widened in 1958. The resource has no distinctive or noteworthy details and is neither historically nor technological significant. It is an altered example of a bridge type commonly used in the South Carolina during the early 20th century. It is therefore recommended not eligible for the National Register of Historic Places. No historic properties will be affected by this project. No additional cultural resources investigations are recommended.

Effect Determination:

\*SHPO consultation is required for all Type 3 projects and any project with a No Adverse or Adverse Effect Determination.

This screening form was developed to satisfy documentation requirements for Type I and Type II projects under a Programmatic Agreement between the Federal Highway Administration, the South Carolina State Historic Preservation Office, the US Army Corps of Engineers, and the South Carolina Department of Transportation. For Type I and Type II projects that have no effect on historic properties, the completion of this screening form with supporting documentation (e.g. ArchSite Map) provides evidence of FHWA and SCDOT's compliance with Section 106 of the National Historic Preservation Act.

Prepared by:

Review Date:

ARCHAEOLOGICAL FIELD REPORT  
SCDOT ENVIRONMENTAL SECTION



**TITLE:** Cultural Resources Survey of the SC 215 (Buffalo-West Springs Highway) over Fairforest Creek Bridge Replacement Project, Union County, South Carolina

**CONSULTANT:** HDR

**DATE OF RESEARCH:** 2023

**ARCHAEOLOGISTS:** Joshua N. Fletcher and Michael Inman

**ARCHITECTURAL HISTORIAN:** Jessica Forbes

**COUNTY:** Union

**PROJECT:** SC 215 (Buffalo-West Springs Highway) over Fairforest Creek Bridge Replacement Project

**SCDOT PIN:** P041236

**DESCRIPTION:** The South Carolina Department of Transportation (SCDOT) proposes to replace the South Carolina Highway (SC) 215 (Buffalo-West Springs Highway) over Fairforest Creek in Union County, South Carolina. The study area extends approximately 1,500 feet from either end of the bridge along SC 215. The existing right-of-way (ROW) varies from approximately 50 to 100 feet along the roadway and 150 feet within the bridge area. The archaeological area of potential effect (APE) is 100 feet from either side of the road centerline (200 feet wide total) and 1,500 feet from either end of the bridge. The architectural APE extends 300 feet outside the archaeological APE. Figure 1 presents the project location on the U.S. Geological Survey (USGS) 1969 *Union West*, SC quadrangle.

**LOCATION:** The project is located on SC 215, southwest of Buffalo, South Carolina.

**USGS QUADRANGLE:** *Union West, SC*

**DATE:** 1969 **SCALE:** 7.5' **UTM:** **ZONE:** 17 **DATUM:** NAD27

**PROJECT CENTERPOINT:** **EASTING:** 435026 **NORTHING:** 3841822

**ENVIRONMENTAL SETTING:** The project is located to the north and south of SC 215. This road passes through fairly moderately to steeply sloping topography, with lands sloping down towards Fairforest Creek within the center of the project area. Land use in the project vicinity includes commercial, residential, fenced pastureland, and forested upland areas with a bottomland hardwood forest riparian corridor.

**NEAREST RIVER/STREAM AND DISTANCE:** Fairforest Creek is at the center of the study area.

**SOIL TYPES:** Hiwassee sandy clay loam (10 to 15 percent slopes, eroded), Madison and Pacolet soils (15 to 40 percent slopes), and Wilkes soils (15 to 40 percent slopes)

**REFERENCE FOR SOILS INFORMATION:** Natural Resources Conservation Service (NRCS). 2023. Soils Surveys for Union County, SC. (<https://websoilsurvey.nrcs.usda.gov/app/>). Accessed February 2023.

**GROUND SURFACE VISIBILITY:** 0% ☐ 1-25% ☒ 26-50% ☐ 51-75% ☐ 76-100% ☐

**CURRENT VEGETATION:** Habitat types within the project corridor consist of bottomland forested wetlands dominated by large canopy tree species, such as water oak and sycamore, with an understory dominated by herbaceous species, such as switchcane. The forested upland areas consist primarily of a dense mixed pine forest dominated by loblolly pine and sweetgum. In addition to the roadway embankment, a maintained powerline parallels SC 215 to the south.

**INVESTIGATION:** On January 17, 2023, the project archaeologist (Josh Fletcher) consulted the ArchSite program to determine if previously identified archaeological sites are located within the project vicinity. No archaeological sites are located near the project area. Also on January 17, 2023, Mr. Fletcher searched the National Register of Historic Places (NRHP) files of the South Carolina Department of Archives and History (SCDAH), using the ArchSite program to identify previous investigations and previously identified resources. No historic-age

architectural resources are located near the project area. No NRHP-eligible archaeological sites or architectural resources are located within 0.5 mile of the project area.

**ARCHAEOLOGICAL SURVEY:** Investigators conducted an intensive archaeological survey on February 9, 2023. The archaeological survey consisted of intensive shovel testing within upland areas. No shovel tests were excavated within areas with steep slopes (15 percent or greater), wetland areas, manicured yards, fenced pastures, or obviously heavily disturbed areas. All shovel test locations were visited, and visual inspection was conducted within areas that displayed good ground surface visibility. Figure 2 presents the locations of the project, identified cultural resources within the APE, and shovel tests on a modern aerial photograph. Figures 3 and 4 present typical views of the project area.

Investigators traversed a total of four shovel test transects, one in each of the four quadrants surrounding the bridge. The transects were placed approximately 75 feet from the road centerline. Shovel tests were excavated at 100-foot intervals along each transect, where possible. Investigators excavated a total of 15 shovel tests. The shovel tests were excavated to an average depth of 20 centimeters below surface (cmbs) and ranged from 15 to 45 cmbs in depth. In nearly all shovel tests, compact subsoil was encountered by approximately 5 cmbs, if not at the ground surface. Shovel tests generally exposed a 10R3/4 dusky red clay loam from 0 to 5 cmbs over a compact 10R4/3 red clay subsoil at 5 to 15-plus cmbs. The fill from these tests was sifted through 0.25-inch (0.635 cm) mesh hardware cloth. Investigators recovered no cultural materials from the shovel tests but identified two archaeological sites (Sites 38UN1862 and 38UN1863).

#### **Site 38UN1862**

Site 38UN1862 consists of a brick pumphouse located north of SC 215 (see Figures 1 and 2). The site/pumphouse measures 6.5 by 6.5 feet. The site area is wooded in small hardwoods. Figure 5 presents a plan of Site 38UN1862. Figures 6 through 8 present views of Site 38UN1862.

The structure, which has no windows or door, is approximately 5 feet tall and has no remaining roof. Due to variations in the bricks and mortar within several areas, it appears the structure was repaired on at least one occasion. Asphalt shingles are present on the ground inside the structure, indicating the roof collapsed. A possible old water heater and some metal piping is located (not intact) inside the structure. It appears electricity previously ran to the building, as a downed power pole is nearby. No associated house site was apparent immediately nearby within the field or on the 1929 road construction plans. The pumphouse may be associated with an occupied house located approximately 230 feet northeast of this structure. This house is visible on a 1955 aerial photograph (Historic Aerials Website 2023). In the 1955 aerial photograph, the area of the pumphouse appears to be plowed agricultural fields, though the structure may be obscured by a fringe of tree cover adjacent to SC 215.

Investigators excavated three shovel tests at 15-meter intervals southwest of the structure; none of these shovel tests produced artifacts. Soils within the site area generally consist of a 5YR4/6 yellowish red loamy sand at 0 to 35 cmbs, over a 5YR5/3 reddish brown clay subsoil at 35 to 45-plus cmbs.

The NRHP eligibility of Site 38UN1862 was assessed with respect to Criterion D, its ability to add significantly to understanding of the history of the region. The site consists solely of the brick pumphouse. Additional investigation of Site 38UN1862 is unlikely to generate information beyond the period of use (early to middle twentieth century) and the presumed function (pumphouse). The site cannot generate additional important information concerning past settlement patterns nor land-use practices within Union County. Therefore, Site 38UN1862 is recommended not eligible for listing in the NRHP and warrants no further management consideration.

#### **Site 38UN1863**

Site 38UN1863 contains a portion of the remnants of the old alignment of SC 215 and two bridge piers from the former bridge across Fairforest Creek. An approximately 700-foot-long portion of the former roadbed is visible within the northeastern quadrant of the archaeological APE. The old roadbed, which is approximately 18 feet wide from base of bank to base of bank, is cut into the hillside. The old road banks range in height from approximately 2 to 4 feet tall, above the roadbed. No pavement remnants were visible within the old roadbed area. Figure 9 presents a plan of Site 38UN1863.

Two stone bridge piers are present south of the current bridge. The piers are constructed of both cut and natural granite stones joined together with concrete and smaller stone chinking. Both stone piers measure approximately 20 feet wide and 7 feet, 2 inches thick at the base, with a taper as they rise in height. Both stone piers are approximately 17 feet tall and are topped with a poured concrete cap that is approximately 2 feet tall. Figures 10 through 14 present views of Site 38UN1863. The former road alignment is shown on the 1929 State of South Carolina State Highway Department plans for a new bridge/road alignment; the old stone piers are not depicted on these plans. A portion of this plan is shown in Figure 15. It is unclear when the stone bridge piers and former alignment were originally constructed, though they obviously predate 1929.

Site 38UN1863 was considered for NRHP eligibility under Criterion C. It reflects a common road and bridge type within South Carolina. The only remaining materials of the road and bridge are the two stone bridge support piers. Site 38UN1863 was not found to embody the distinctive characteristics of a type, period, or method of construction, and does not possess significance for its engineering or materials; therefore, it is not significant under Criterion C. Site 38UN1863 was also considered for NRHP eligibility under Criterion A due to its association with patterns of transportation. The former road alignment, like modern-day SC 215, passes through rural areas interspersed with water crossings and is not unique; therefore, it is not significant under Criterion A. Site 38UN1863 is not known to be associated with any significant person; therefore, it is not significant under Criterion B. Site 38UN1863 is unlikely to yield new information or answer important research questions about local, state, or national history; therefore, it is not significant under Criterion D. Because Site 38UN1863 is not found to have significance under Criteria A through D, it is recommended not eligible for listing in the NRHP.

**ARCHITECTURAL SURVEY:** Investigators conducted the architectural resources survey on February 15, 2023, and recorded one historic-age (50 years of age or older; constructed in 1973 or before) architectural resource (State Historic Preservation Office [SHPO] Survey Site Number 1440; Figures 16 through 19). Data from the Union County Assessor were consulted prior to the architectural resources survey to help identify historic-age architectural resources within the architectural APE. A Statewide Survey of Historic Properties survey form was completed for the newly recorded architectural resource (Attachment 1). This newly recorded resource, a transportation resource (highway bridge) originally built in 1930, is recommended not eligible for listing in the NRHP due to a lack of historic and/or engineering significance under Criteria A through D. No other historic-age architectural resources are present within the architectural APE.

#### **Site Number 1440**

The bridge carrying SC 215 over Fairforest Creek (SCDOT Structure Number 0004440021500300) was built in 1930 and reconstructed (widened) in 1958. The 11-span concrete Tee beam bridge measures 284 feet long, with a maximum span length of 43 feet. The original 1930 structure was widened in 1958 using a cast-in-place concrete deck. The modified structure, which carries two lanes, has a width between the curbs of 26 feet. The original 1930 structure is supported by cast-in-place concrete piers, each comprising two square “mushroom head” columns with concrete caps, except for the two piers supporting the river span. Those two piers, on the northern and southern banks, are also cast-in-place concrete, but feature caps on circular piles, and an arched opening with closed concrete spandrels. When the structure was widened in 1958, the piers supporting the new portions of the concrete slab (on the eastern and western sides of the 1930 structure) included concrete caps on steel H-beams with cast concrete footings. Figures 16 through 19 present views of Site Number 1440.

Though the bridge has components built in 1958, the original 1930 structure was not removed when alterations were made in 1958. Therefore, the bridge does not qualify for streamlined review under the Federal Highway Administration’s Post-1945 Bridges Program Comment because a portion of the bridge predates the 1945 cutoff. According to a nationwide road bridge context, cast-in-place, reinforced concrete Tee beam bridges are “ubiquitous to America’s highways and byways,” with thousands constructed from the first decade of the twentieth century until the 1960s (Parsons Brinkerhoff 2005:3-85). The Tee beam was one of the earliest forms to be standardized by state highway departments, and character-defining features include the slab with integrated longitudinal beams; parapet or railing when integrated; and abutments, wingwalls, or piers (in some cases) (Parsons Brinkerhoff 2005:3-85).

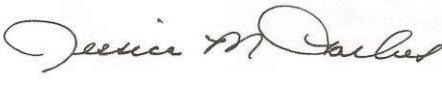
While the bridge is a part of South Carolina’s highway infrastructure, as an individual resource, the SC 215 bridge over Fairforest Creek is not found to have made a significant contribution to the history of transportation within

Union County or the state of South Carolina; therefore, it is not significant under Criterion A. The bridge is not known to have been associated with individuals that were historically significant; therefore, it is not significant under Criterion B. The concrete slab bridge is not significant under Criterion C for its design or construction due to the use of common construction materials and building techniques. The bridge is of a common type. The widening of the bridge in 1958—though completed with in-kind materials (concrete)—altered the original, pre-1958 appearance. As an example of a concrete Tee beam bridge modified in the 1950s, its design is spare. The bridge does not display exemplary engineering traits, nor does it solve a unique engineering problem. It is not considered the work of a master, nor are its engineering traits specific to the region or exemplary in any way. The bridge's common construction is unlikely to yield new information, nor answer important research questions about local, state, or national history; therefore, it does not have significance under Criterion D. Therefore, Site Number 1440 is not found to have significance under Criteria A through D and is recommended not eligible for listing in the NRHP.

**REMARKS AND RECOMMENDATIONS:** HDR identified two archaeological sites (Sites 38UN1862 and 38UN1863) and one historic-age architectural resource (SHPO Survey Site Number 1440) during the survey. Archaeological Sites 38UN1862 and 38UN1863 and Site Number 1440 are recommended not eligible for listing in the NRHP. No previously recorded historic properties are within the project area. Therefore, the project as currently planned will not affect any historic properties. If current proposed plans change, additional survey may be necessary.

SIGNATURE: 

DATE: March 20, 2023

SIGNATURE: 

DATE: March 20, 2023

## REFERENCE CITED

- Historic Aerials Website. 2023. Accessed at <https://www.historicaerials.com/viewer> on March 2, 2023.
- Natural Resources Conservation Service (NRCS). 2023. *Soils Surveys for Union County, SC*. <https://websoilsurvey.nrcs.usda.gov/app/>, accessed February 2023.
- Parsons Brinckerhoff and Engineering and Industrial Heritage. 2005. *A Context for Common Historic Bridge Types*. NCHRP Project 25-25, Task 15. Prepared for the National Cooperative Highway Research Program, administer by the Transportation Research Board of the National Research Council, Washington, D.C.

## LIST OF FIGURES

- Figure 1. Location of the SC 215 (Buffalo-West Springs Highway) over Fairforest Creek Bridge Replacement Project.
- Figure 2. Aerial photograph showing shovel test locations and newly recorded cultural resources.
- Figure 3. Northeastern quadrant of the APE, looking southwest.
- Figure 4. Southeastern quadrant of the APE, looking southwest.
- Figure 5. Plan of Site 38UN1862.
- Figure 6. View of Site 38UN1862, looking southwest.
- Figure 7. View of Site 38UN1862, looking northeast.
- Figure 8. View of the interior of the pumphouse.
- Figure 9. Plan of Site 38UN1863.
- Figure 10. View of the stone piers at Site 38UN1863, looking southwest.
- Figure 11. View of the eastern stone pier at Site 38UN1863, looking northeast.
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- Figure 13. View of the western stone pier at Site 38UN1863, looking southwest.
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- Figure 16. Site Number 1440, facing southwest.
- Figure 17. Site Number 1440, facing northeast.
- Figure 18. Site Number 1440, facing southwest.
- Figure 19. Site Number 1440, facing east.

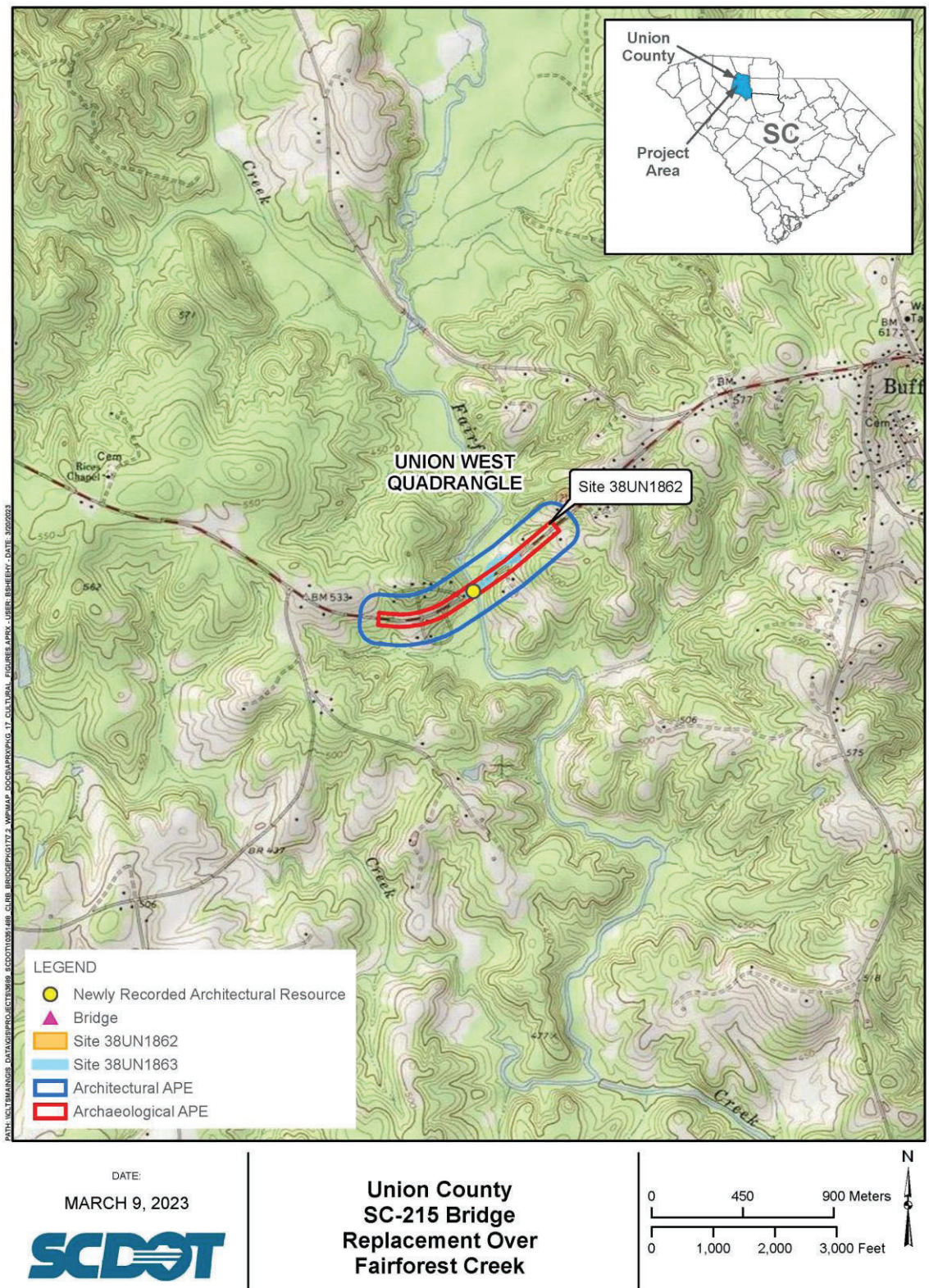


Figure 1. Location of the SC 215 (Buffalo-West Springs Highway) over Fairforest Creek Bridge Replacement Project.

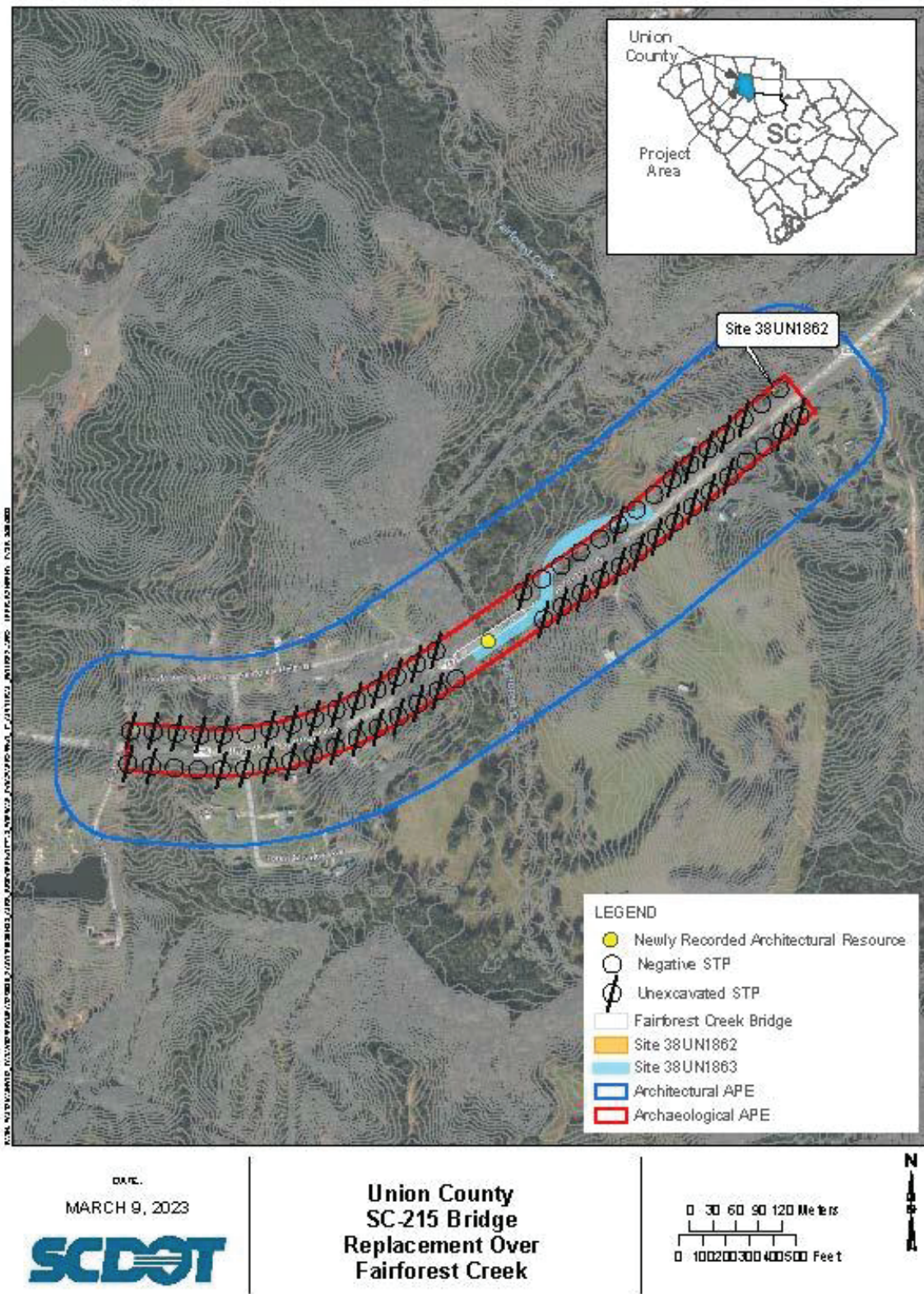


Figure 2. Aerial photograph showing shovel test locations and newly recorded cultural resources.



**Figure 3. Northeastern quadrant of the APE, looking southwest.**



**Figure 4. Southeastern quadrant of the APE, looking southwest.**

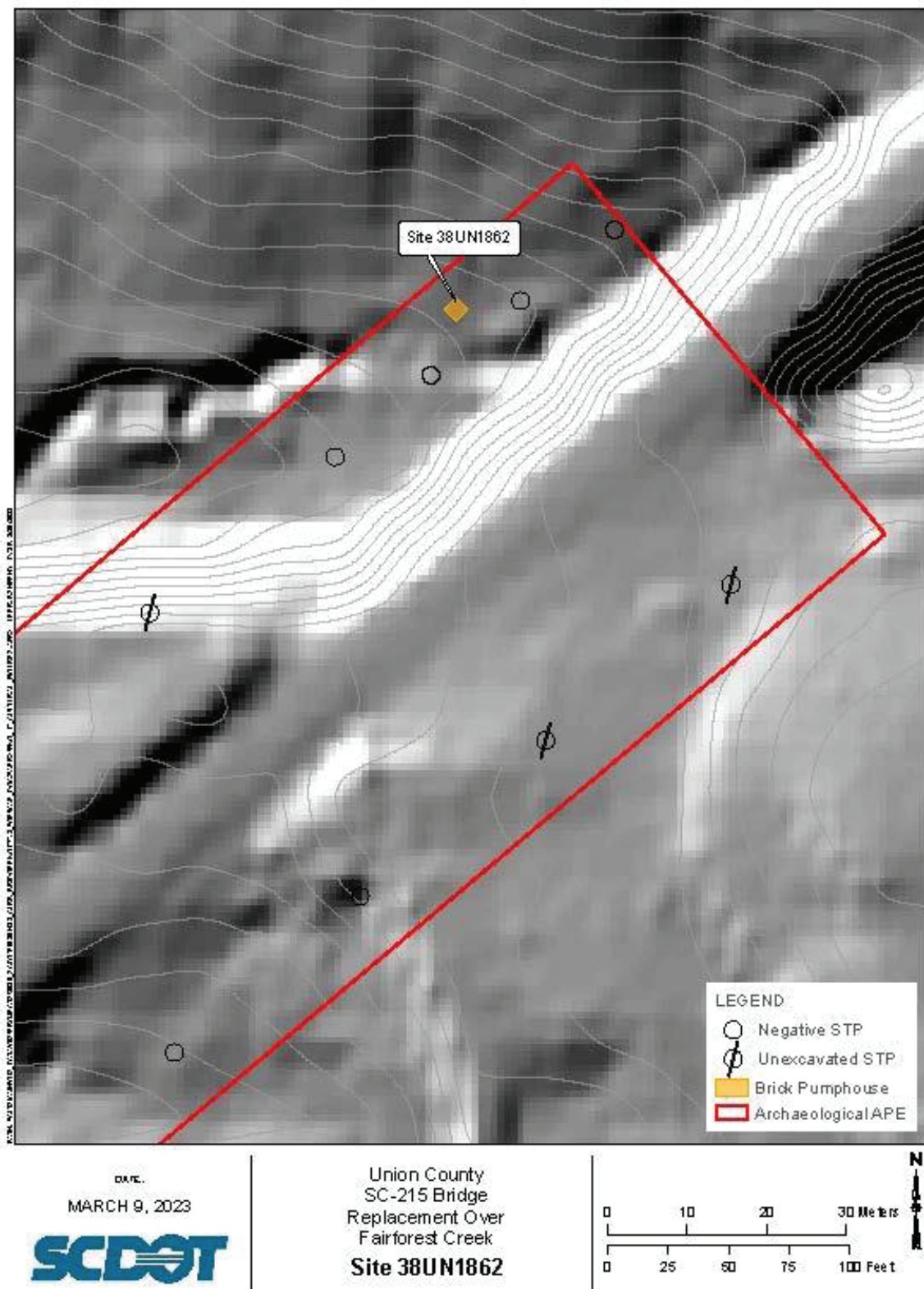


Figure 5. Plan of Site 38UN1862.



**Figure 6.** View of Site 38UN1862, looking southwest.



**Figure 7.** View of Site 38UN1862, looking northeast.



**Figure 8.** View of the interior of the pumphouse.

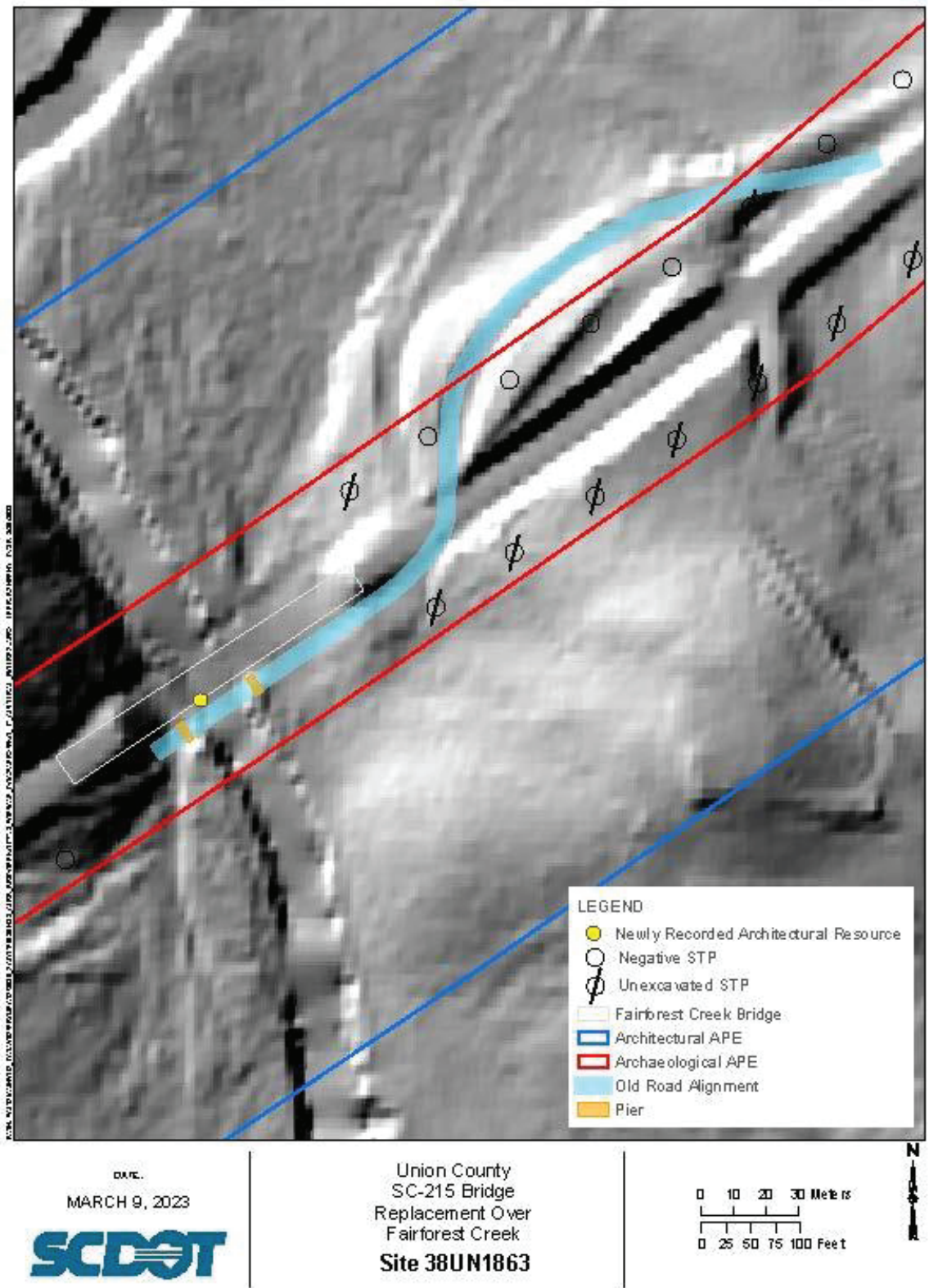


Figure 9. Plan of Site 38UN1863.



**Figure 10.** View of the stone piers at Site 38UN1863, looking southwest.



**Figure 11. View of the eastern stone pier at Site 38UN1863, looking northeast.**



**Figure 12. View of the eastern stone pier at Site 38UN1863, looking southeast.**



**Figure 13.** View of the western stone pier at Site 38UN1863, looking southwest.



**Figure 14.** View of the western stone pier at Site 38UN1863, looking southeast.

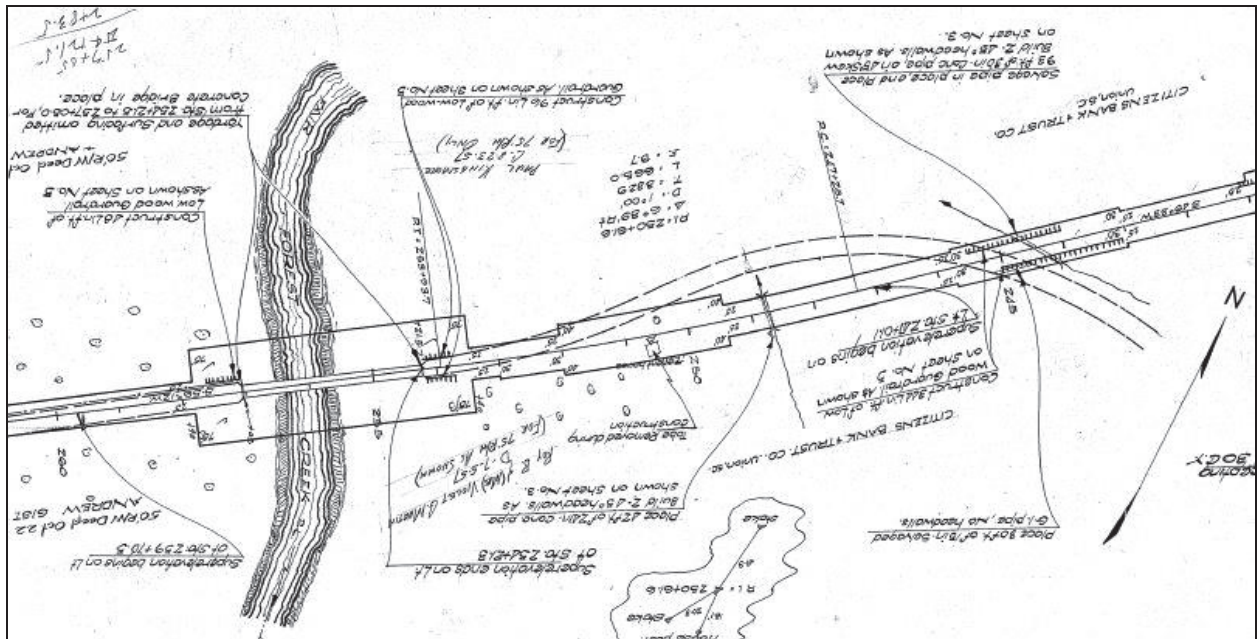


Figure 15. Portion of the 1929 construction plans showing the old road alignment.



**Figure 16. Site Number 1440, facing southwest.**



**Figure 17.** Site Number 1440, facing northeast.



**Figure 18.** Site Number 1440, facing southwest.



Figure 19. Site Number 1440, facing east.

**ATTACHMENT 1**

# Statewide Survey of Historic Properties

State Historic Preservation Office  
South Carolina Department of Archives and History  
8301 Parklane Road  
Columbia, SC 29223-4905 (803) 896-6100

Site No. 1440 Status U Revisit  
Quadrangle Name: Union West  
Tax Map No. N/A

## SURVEY FORM

### Identification

Historic Name:

Common Name: SC 215 at Fairforest Creek Bridge

Address/Location: SC 215 at Fairforest Creek

City: Buffalo Vicinity of County: Union

Ownership: State Category: Structure Other:

Historical Use: Transportation

Current Use: Transportation

SHPO National Register Determination of Eligibility: Not Eligible

### Property Description

Construction Date: 1930/1955 Construction: Other Other: Tee beam

Historic Core Shape: Rectangular Exterior Walls: Foundation: Other CIP Concrete

Commercial Form: Roof Shape:

Other: Roof Material:

Stories: Porch Shape:

Other: Porch Width:

#### Description/Significant Features:

The 11-span concrete Tee beam bridge measures 284 feet long, with a maximum span length of 43 feet. The original 1930 structure was widened in 1958 using a cast-in-place concrete deck. The modified structure, which carries two lanes, has a width between the curbs of 26 feet. The 1930 structure is supported by cast-in-place concrete piers, each comprising two square "mushroom head" columns (non-river spans); the two piers supporting the river span are also cast-in-place concrete, but feature caps on circular piles, and an arched opening with closed concrete spandrels. Piers supporting the 1958 portions of the bridge consist of concrete caps on steel H-beams with cast concrete footings.

Alterations (include date(s), if known):

Bridge widened in 1958.

Architect(s)/Builder(s):

South Carolina State Highway Department

### **Historical Information**

Historical Information:

The original portion of the concrete Tee beam bridge was built in 1930 and widened in 1958. According to a nationwide road bridge context, the Tee beam was one of the earliest bridge forms to be standardized by state highway departments. Thousands of cast-in-place, reinforced concrete Tee beam bridges were constructed throughout the country from the first decade of the twentieth century until the 1960s

Source(s) of Information:

Parsons Brinckerhoff and Engineering and Industrial Heritage, A Context for Common Historic Bridge Types, 2005; "Cultural Resources Survey of the SC 215 (Buffalo-West Springs Highway) over Fairforest Creek Bridge Replacement Project"

### **Digital Photo ID(s)**

File Name:	View:	Other:
01440001	Facing Southwest	
01440002	Facing Northeast	
01440003	Facing Southwest	
01440004	Facing Southwest	
01440005	Facing Northeast	
01440006	Facing Southwest	
01440007	Facing West	
01440008	Facing East	
01440009	Facing Northeast	
01440010	Facing Southwest	

### **Program Management**

Recorded by:  
Jessica Forbes

Organization:  
HDR

Date Recorded:  
02/15/2023

## Appendix B: Natural Resources Tech Memo



# Memo

Date: April 6, 2023

Project: SC-215 Bridge Replacement over Fairforest Creek  
SCDOT PIN # P041236

To: Will McGoldrick – SCDOT

From: Michael Inman – HDR  
Paul Bright – HDR

Subject: **Natural Resources Survey Technical Memorandum**

HDR conducted a natural resources survey for the South Carolina Department of Transportation (SCDOT) SC-215 (Buffalo West Springs Highway) Bridge Replacement over Fairforest Creek (Project) in Union County, South Carolina, on February 1, 2023. The purpose of the Project is to correct the load restriction placed on it as well as restore all bridge components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition. The bridge is currently open to traffic and will remain open to traffic during construction.

The Study Area is 100 feet from the road centerline (200 feet total) and extends 1,500 feet from either end of the bridge along SC-215. The Study Area encompasses approximately 15 acres and primarily consists of undeveloped forested lands and residential land use with existing road right-of-way (ROW) (Attachment 1, Figures 1 through 3). It is anticipated that minor amounts of ROW will be required for the replacement of the SC-215 bridge. The minor amount of ROW needed will include temporary and/or permanent strips. Existing ROW varies between approximately 50 and 100 feet along the roadway and is approximately 150 feet in the area of the SC-215 bridge.

This technical memorandum provides a summary of HDR's methods and findings from a desktop analysis and on-site natural resources survey. Attached to this memorandum are supporting figures, a SCDOT Permit Determination Form and South Carolina Department of Health and Environmental Control (SCDHEC) Watershed and Water Quality Information Report, HDR's biological assessment, and U.S. Fish and Wildlife Service (USFWS) Consistency Letter.

## Desktop Analysis Methods

A desktop analysis was completed as part of an initial Study Area evaluation to identify key environmental resources to be considered for permitting and/or design. The potential resources identified in the desktop evaluation were field-verified by HDR to ensure that critical regulatory items will not adversely impact the Project. The following resources were consulted during the desktop analysis:

- Federal Emergency Management Agency (FEMA) Map Service Center (<https://msc.fema.gov/portal>)
- South Carolina Department of Natural Resources (SCDNR) and South Carolina Natural Heritage Program (SCNHP) (<https://schtpportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>)
- USFWS Environmental Conservation Online System (ECOS) (<https://ecos.fws.gov/ecp/>)
- USFWS Information for Planning and Consultation (IPaC) (<https://ecos.fws.gov/ipac/>)
- USFWS National Wetland Inventory (NWI) (<http://www.fws.gov/wetlands>)
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (<http://nhd.usgs.gov/>)
- USGS Topographic Quadrangle Maps (1:24,000-scale) Union West Quadrangle

## Wetlands and Jurisdictional Waters of U.S.

On-site reconnaissance activities identified three streams and one wetland within the Study Area (Attachment 1, Figure 4). A summary of jurisdictional waters of the U.S. is provided in Table 1.

**Table 1. Summary of Delineated Waters of the U.S. within the Study Area**

Feature Name	Coordinates (Decimal Degrees)	Type of Aquatic Resource	Cowardin et al. (1979) Classification <sup>1</sup>	Estimated Amount of Aquatic Resource in Study Area
<b>Streams</b>				
Stream 1 Fairforest Creek	34.716321 -81.709738	non-section 10 - non-wetland	R3UB2	Length: 206 lf Average Width: 40 ft
Stream 2	34.718308 -81.706206	non-section 10 - non-wetland	R4SB4	Length: 315 lf Average Width: 3 ft
Stream 3	34.71916 -81.705826	non-section 10 - non-wetland	R5UB2	Length: 93 lf Average Width: 4 ft
<b>Total Streams:</b>				<b>Length: 614 lf</b>
<b>Wetlands</b>				
Wetland 1	34.716625 -81.709563	non-section 10 - wetland	PFO	Area: 0.06 ac.
<b>Total Wetlands:</b>				<b>Area: 0.06 ac.</b>

<sup>1</sup> R3UB2: Riverine, upper perennial, unconsolidated bottom, with sand  
R4SB4: Riverine, intermittent, streambed, with sand bottom  
R5UB2: Riverine, unknown perennial, unconsolidated bottom, with sand  
PFO: Palustrine, forested

Based on the preliminary bridge design, impacts to jurisdictional waters may occur during construction but remain below U.S. Army Corps of Engineers (USACE) General Permit limitations. An SCDOT Permit Determination Form has been completed and is provided as Attachment 2, in addition to a SCDHEC Watershed and Water Quality Information Report.

A field survey was also conducted within the Study Area pursuant to Section 7 of the Endangered Species Act. Results are provided in HDR's biological assessment (Attachment

3). The USFWS IPaC and county species list were used to determine what potential federally protected species could occur on site.

### **Attachments**

Attachment 1 – Figures

Attachment 2 – SCDOT Permit Determination Form and SCDHEC Watershed and Water Quality Information Report

Attachment 3 – Biological Assessment

Attachment 4 – USFWS NLEB Range Map

Attachment 5 – SCDNR South Carolina Rare, Threatened and Endangered Species Inventory for Union County

### **References**

Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C.

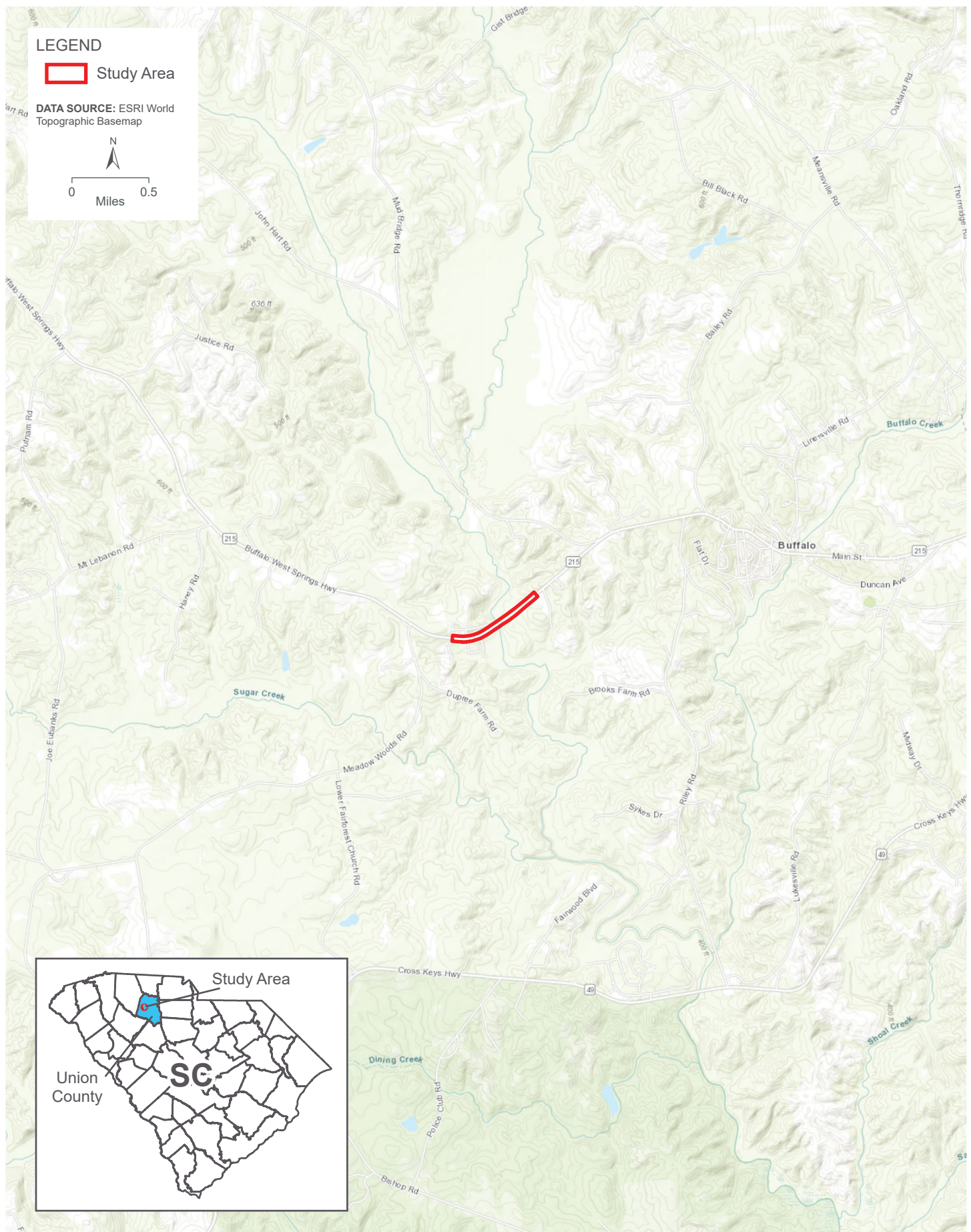
Federal Emergency Management Agency (FEMA). 2021. Special Flood Hazard Area Definition/Description. [Online] URL: <http://www.fema.gov/special-flood-hazard-area>. (Accessed October 2022).

South Carolina Natural Heritage Program (SCNHP). 2022. Data Explorer database. [Online] URL: <https://sclportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>. (Accessed October 2022).



# 1

## Figures

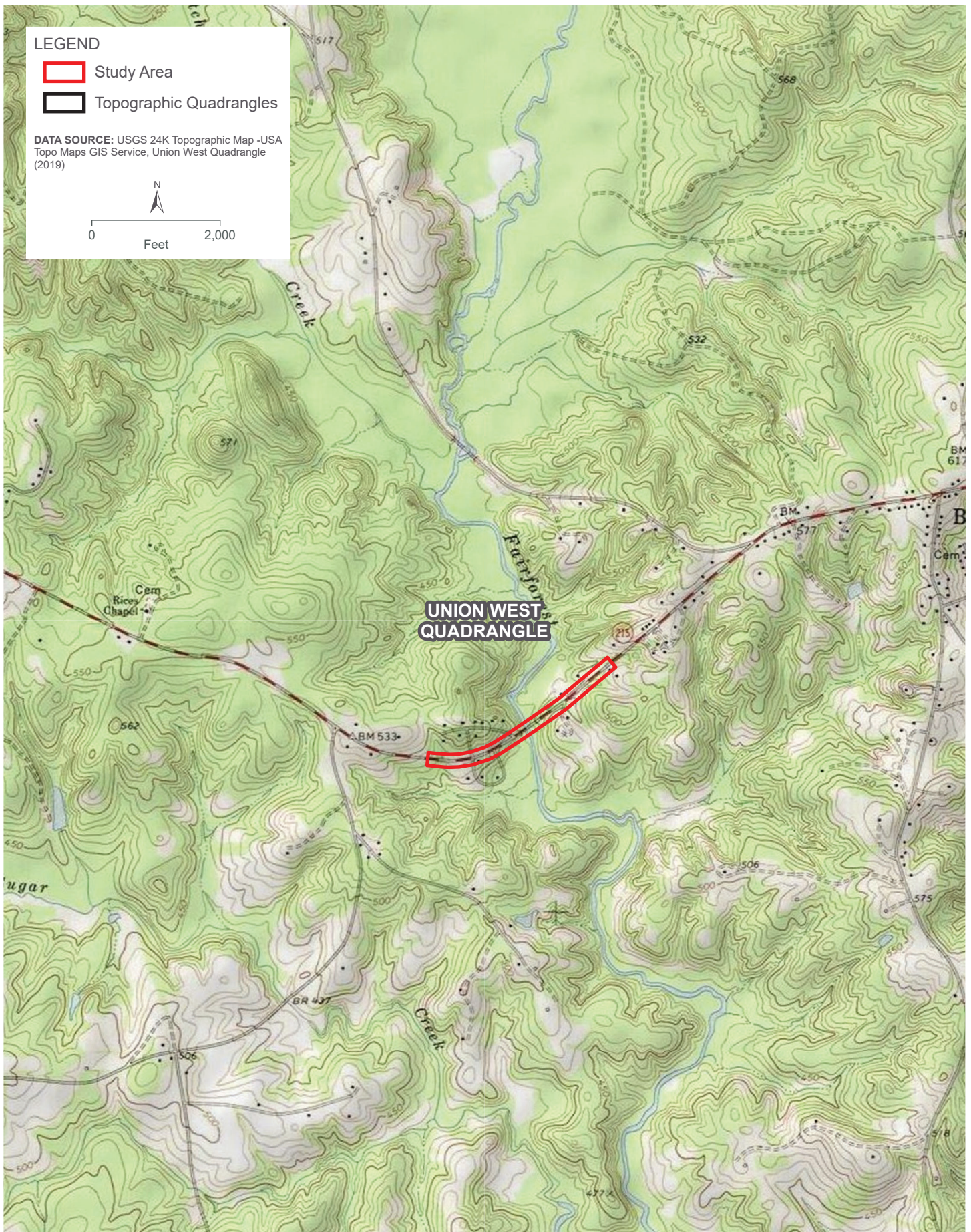


## SC-215 BRIDGE REPLACEMENT OVER FAIRFOREST CREEK

### PROJECT VICINITY

Figure 1

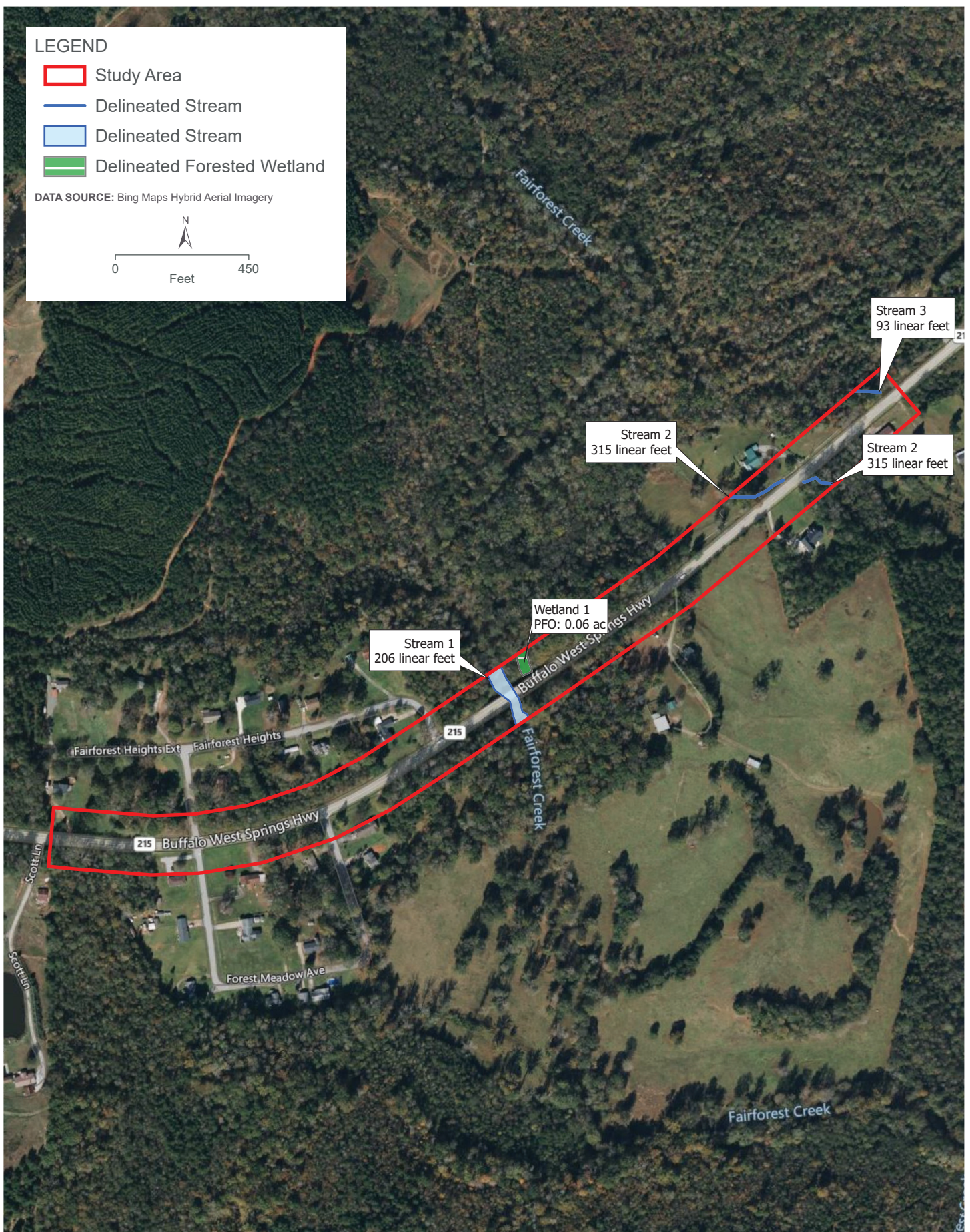




# LEGEND

- Study Area
- Delineated Stream
- Delineated Stream
- Delineated Forested Wetland

DATA SOURCE: Bing Maps Hybrid Aerial Imagery



## SC-215 BRIDGE REPLACEMENT OVER FAIRFOREST CREEK DELINEATED WATERS OF THE U.S.

Figure 4



# 2

## SCDOT Permit Determination Form and SCDHEC Watershed and Water Quality Information Report


Date: 04/06/2023

## PERMIT DETERMINATION

FROM Michael Inman COMPANY HDR Engineering, Inc.

CONTACT INFO (phone and/or email) michael.inman@hdrinc.com

SCDOT PROJECT ENGINEER Michael Pitts

TO Will McGoldrick - Design Build Coordinator 

Project Description Replacing SC-215 bridge over Fairforest Creek (Buffalo  
West Springs Highway) in Union County, SC

Route or Road No. SC-215 County Union

CONST. PIN P041236 OTHER PINS or STRUCTURE #

RESPONSE:

☐ It has been determined that no permits are required because:

☒ The following permit(s) is/are necessary:  
(Please check which type(s) of permit the project will need)

USACE Permit ☒ GP ☐ IP ☐ 401 ☐ JD

OCRM Permit ☐ CAP ☐ CZC

Navigable ☒ SCDHEC NAVGP — if checked a USCG and/or USACE navigable permit may also be required, but will be determined during the NEPA and Permitting stages.

Other

Water Classification: FW  *Print and attach the SCDHEC water quality report*

303(d) listed ☒ no ☐ yes, for \*

TMDL developed ☐ no ☒ yes, for \* Fecal Coliform

\*List all that apply using the SCDHEC abbreviations

Comments: SC-215 is a bridge replacement project. Impacts to jurisdictional features  
are anticipated but would not exceed USACE General Permit thresholds.

The determination above was based on the most recently available information at the time. This is a preliminary determination and is subject to change if the design of the project is modified.

Inman, Michael Digitally signed by Inman, Michael  
Date: 2023.04.06 17:30:48 -04'00'

Biologist, SCDOT/Consultant

04/06/2023

Date



# Watershed and Water Quality Information

## General Information

**Applicant Name:** SCDOT

**Permit Type:** Construction

**Address:** 105 FAIRFOREST HTS,  
BUFFALO, SC, 29321

**Latitude/Longitude:** 34.716332 / -81.709710

**MS4 Designation:** Not in designated area

**Monitoring Station:** BF-008

**Within Coastal Critical Area:** No

**Water Classification (Provisional):** FW

**Waterbody Name:** TYGER RIVER

**Entered Waterbody Name:**

## Parameter Description

NH3N	Ammonia	CD	Cadmium	CR	Chromium
CU	Copper	HG	Mercury	NI	Nickel
PB	Lead	ZN	Zinc	DO	Dissolved Oxygen
PH	pH	TURBIDITY	Turbidity	ECOLI	Escherichia coli (Freshwaters)
FC	Fecal Coliform (Shellfish)	BIO	Macroinvertebrates (Bio)	TP	(Lakes) Phosphorus
TN	(Lakes) Nitrogen	CHLA	(Lakes) Chlorophyll a	ENTERO	Enterococcus (Coastal Waters)
HGF	Mercury (Fish Tissue)	PCB	PCB (Fish)		

## Impaired Status (downstream sites)

Station	NH3N	CD	CR	CU	HG	NI	PB	ZN	DO	PH	TURBIDITY	ECOLI	FC	BIO	TP	TN	CHLA	ENTERO	HGF	PCB
BF-008	F	F	F	F	F	F	F	F	F	F	F	InTN	X	X	X	X	X	X	X	X

F = Standards full supported  
N = Standards not supported

A = Assessed at upstream station  
X = Parameter not assessed at station

WnTN = Within TMDL, parameter not supported  
InTN = In TMDL, parameter not supported

WnTF = Within TMDL, parameter full supported  
InTF = In TMDL, parameter full supported

## Parameters to be addressed (those not supporting standards)

**ECOLI** - Escherichia coli (Freshwaters)

## Fish Consumption Advisory

## Waters of Concern (WOC)

## TMDL Information - TMDL Parameters to be addressed

**In TMDL Watershed:** Yes

**TMDL Site:** BF-008

**TMDL Report No:** 021-04

**TMDL Parameter:** Fecal

**TMDL Document Link:** [https://www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/tmdl\\_tyger\\_fc.pdf](https://www.scdhec.gov/sites/default/files/docs/HomeAndEnvironment/Docs/tmdl_tyger_fc.pdf)

Report Date: February 14, 2023



# 3

## Biological Assessment

Biological Assessment of the  
SC-215 Bridge Replacement over Fairforest Creek  
Union County, SC  
SCDOT PIN # P041236  
April 6, 2023

Pursuant to Section 7 of the Endangered Species Act, a field survey was conducted within the Study Area. The following list of federally protected species was obtained from the U.S. Fish and Wildlife Service (USFWS), and the South Carolina Rare, Threatened and Endangered Species Inventory for Union County. This includes bat species for which federal guidance is currently being updated:

**Mammals**

Northern long-eared bat (*Myotis septentrionalis*) – E  
Tricolored bat (*Perimyotis subflavus*) – Proposed Endangered

**Insects**

Monarch butterfly (*Danaus plexippus*) – C (candidate)

**Methods**

The Study Area was examined by GIS and field reconnaissance methods on February 1, 2023. Habitats surveyed were determined by the species' ecological requirements.

**Results**

The Project consists of replacing a bridge and associated road work on SC-215 over Fairforest Creek in Union County, South Carolina. Land use in the vicinity of the Study Area includes residential and forested upland areas with a bottomland hardwood forest riparian corridor. Habitat types within the Study Area consist of bottomland forested wetlands dominated by large canopy tree species such as water oak (*Quercus nigra*) and sycamore (*Platanus occidentalis*) with an understory dominated by herbaceous species such as switchcane (*Arundinaria tecta*).

Bottomland hardwoods are typically found on floodplains of rivers and streams and can occur in the Piedmont as well as the Coastal Plain. Typical tree species found in bottomland hardwood communities include sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus taeda*), hackberry (*Celtis laevigata*), overcup oak (*Quercus lyrata*), water oak, willow oak (*Q. phellos*), laurel oak (*Q. laurifolia*), swamp chestnut oak (*Q. michauxii*), cherrybark oak (*Q. falcata* var. *pagodafolia*), white ash (*Fraxinus americana*), sycamore, American holly (*Ilex opaca*), and American elm (*Ulmus americana*). Typically, there is a subcanopy of young canopy species and many tall shrubs including southern arrowwood (*Viburnum dentatum*) and blackhaw (*V. prunifolium*). Vine species are typically common and can include poison ivy (*Toxicodendron radicans*), summer grape (*Vitis aestivalis*), and crossvine (*Bignonia capreolata*). The herb layer contains false nettle (*Boehmeria cylindrica*), cardinal flower (*Lobelia cardinalis*), royal fern (*Osmunda regalis*), and eastern marsh fern (*Thelypteris palustris*).

The forested upland areas consist primarily of a dense mixed pine forest dominated by loblolly pine and sweetgum. In addition to the roadway embankment, there is a maintained powerline that parallels SC-215 to the south.

Fairforest Creek is classified as a perennial, unconsolidated bottom, riverine system. The creek is somewhat incised with areas of minor bank erosion, and it appears that it occasionally leaves its banks during heavy rain events. Most of the bank erosion was found along destabilized areas underneath and near the SC-215 bridge.

According to the South Carolina Department of Natural Resources (SCDNR) Heritage Trust database of endangered, threatened, and rare species, there are no occurrences of any federally listed species in the vicinity of the Study Area. The open grass areas, and road and transmission rights-of-way offers a variety of flowering plants for nectar, which could include plants from the milkweed genus (*Asclepias* spp.). Potential habitat for the monarch butterfly was identified within the Study Area for migrating and breeding adults; however, neither Section 7 of the Endangered Species Act nor the implementing regulations for Section 7 contain requirements for federal agencies in relation to candidate species. No individuals of monarch butterflies were observed within the Study Area during the field survey. Tricolored bat and northern long eared bat habitat was surveyed and identified within the forested areas on site as well as under the SC-215 bridge; however, there was no evidence of bat use. A formal survey for tricolored bat and northern long eared bat was not conducted.

According to the SCDNR Rare, Threatened and Endangered Species Inventory, there are no records of federally listed species occurring in Union County, South Carolina. While this inventory list does include northern long-eared bat, the current range for northern long-eared bat does not extend into Union County. A map of the northern long-eared bat range in South Carolina (USFWS 2023) is attached to this report.

Based on the lack of suitable habitat and/or no observations of the listed species in the vicinity of the Study Area, results of the threatened and endangered species study indicate that the proposed action will not affect any threatened or endangered species or critical habitats currently listed by the USFWS.

Submitted by:

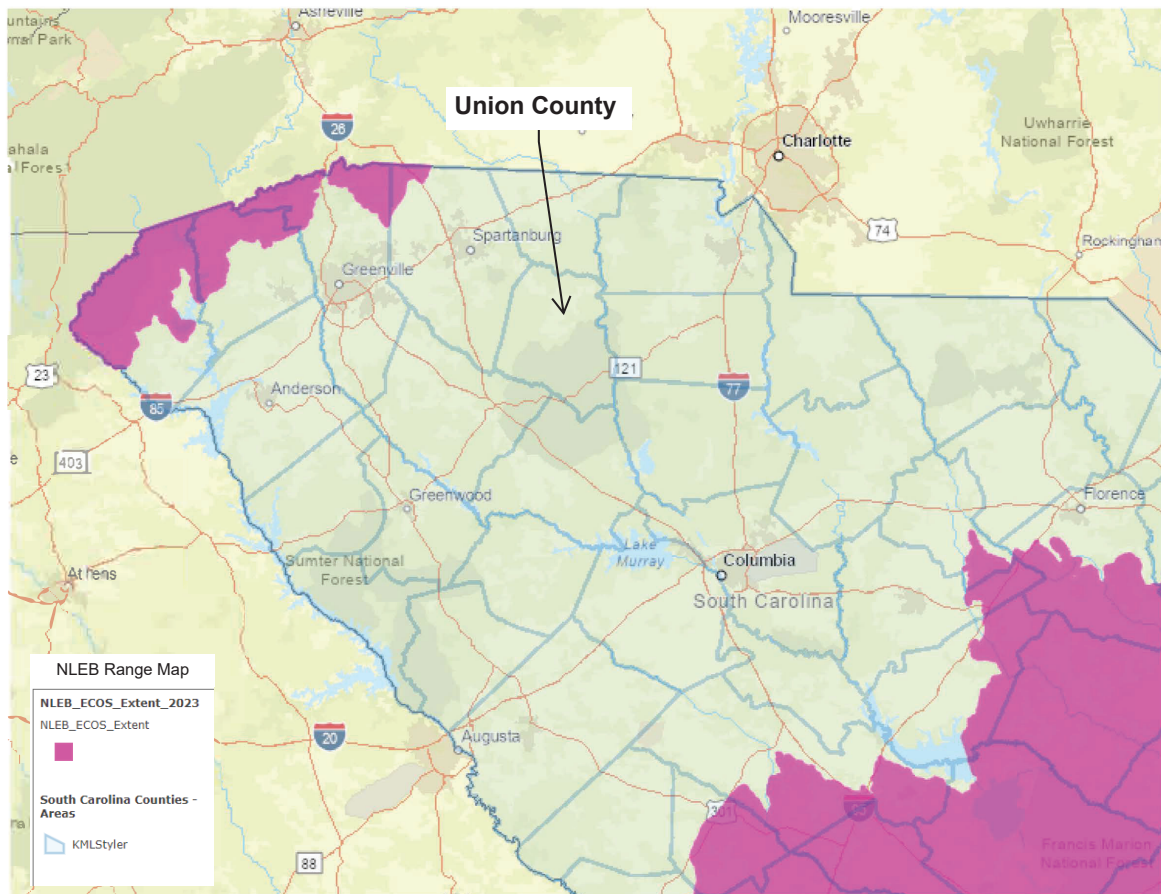
A handwritten signature in blue ink, appearing to read 'Michael Inman'.

Michael Inman  
HDR Environmental Scientist  
4/6/2023



# 4

## USFWS NLEB Range Map





# 5

## SCDNR South Carolina Rare, Threatened and Endangered Species Inventory for Union County

## UNION COUNTY

CATEGORY	COMMON NAME/STATUS	SCIENTIFIC NAME	SURVEY WINDOW/ TIME PERIOD	COMMENTS
<b>Fish</b>	Robust redhorse (ARS)	<i>Moxostoma robustum</i>	Late April-early May	Temperature dependent: 16-24°C
<b>Insect</b>	Monarch butterfly (C)	<i>Danaus plexippus</i>	August-December	Overwinter population departs; March-April
<b>Mammal</b>	Northern long-eared bat (T)	<i>Myotis septentrionalis</i>	Year round	Winter surveys not as successful
<b>Mammal</b>	Tri-colored bat (ARS)	<i>Perimyotis subflavus</i>	Year round	Found in mines and caves in the winter
<b>Plant</b>	Georgia aster (ARS*)	<i>Symphyotrichum georgianum</i>	Early October-mid November	

*Note: There are no federally protected species found in this county in the amphibian, bird, crustacean, mollusk, and reptile family categories.*

## Appendix C: Bridge Replacement Scoping Risk Assessment Form

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

COUNTY: Union

DATE: 03/03/2023

ROAD #: SC-215

STREAM CROSSING: Fairforest Creek

### Purpose & Need for the Project:

SCDOT proposes to replace the SC-215 (Buffalo-West Springs Hwy) Bridge over Fairforest Creek in Union County. The purpose of this project is to correct the load restriction placed on it as well as restore bridge components to good condition. The existing bridge is posted for load restrictions and has one or more components in poor condition.

### I. FEMA Acknowledgement

Is this project located in a regulated FEMA Floodway? ☐ Yes ☒ No

Panel Number: 45087C0200D Effective Date: 08/02/2011 (See Attached)

### II. FEMA Floodmap Investigation

FEMA Flood Profile Sheet Number \_\_\_\_\_ illustrates the existing 100 year flood:

- ☐ Passes under the existing low chord elevation.
- ☐ Is in contact with the existing low chord elevation.
- ☐ Overtops the existing bridge finished grade elevation.

### III. No Rise/CLOMR Preliminary Determination

- ☒ Preliminary assessment indicates this project may be constructed to meet the "No-Rise" requirements. A detailed hydraulic analysis will be performed to verify this assessment.

Justification: The SC-215 bridge over Fairforest Creek is located within a FEMA Special Flood Hazard Area Zone A. Bridge will be replaced with similar or slightly larger structure and maintain low chord.

- ☐ Preliminary assessment indicates this project may require a CLOMR/LOMR. Impacts will be determined by a detailed hydraulic analysis.

Justification:

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

### IV. Preliminary Bridge Assessment

#### A. Locate Existing Plans

a. Bridge Plans ☒ Yes File No. 44.299 Sheet No. 11 (See Attached)  
☐ No

b. Road Plans ☐ Yes File No. \_\_\_\_\_ Sheet No. \_\_\_\_\_ (See Attached)  
☒ No

#### B. Historical Highwater Data

a. USGS Gage ☐ Yes Gage No. \_\_\_\_\_ Results: \_\_\_\_\_  
☒ No

b. SCDOT/USGS Documented Highwater Elevations  
☒ Yes Results: SCDOT Plans HW=95 (project datum)  
☐ No

c. Existing Plans ☒ Yes See Above  
☐ No

### V. Field Review

#### A. Existing Bridge

Length: 284 ft. Width: 42.25 ft. Max. span Length: 43 ft.

Alignment: ☒ Tangent ☐ Curved

Bridge Skewed: ☐ Yes ☒ No Angle: \_\_\_\_\_

End Abutment Type: Spill-through

Riprap on End Fills: ☒ Yes ☐ No Condition: Fair Condition

Superstructure Type: Prestressed concrete beam

Substructure Type: Square & Tapered-Round interior bents

Utilities Present: ☒ Yes ☐ No

Describe: Waterline attached to bridge.

Debris Accumulation on Bridge: Percent Blocked Horizontally: <1 %  
Percent Blocked Vertically: <1 %

Hydraulic Problems: ☐ Yes ☒ No

Describe: \_\_\_\_\_

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

### V. Field Review (cont.)

#### B. Hydraulic Features

a. Scour Present: ☐ Yes ☒ No Location: \_\_\_\_\_

b. Distance from F.G. to Normal Water Elevation: \_\_\_\_\_ ~18.5 ft.

c. Distance from Low Steel to Normal Water Elev.: \_\_\_\_\_ ~14.5 ft.

d. Distance from F.G. to High Water Elevation: \_\_\_\_\_ ~12.5 ft.

e. Distance from Low Steel to High Water Elev.: \_\_\_\_\_ ~8.5 ft.

f. Channel Banks Stable: ☒ Yes ☐ No

Describe: Generally stable outside of bridge with vegetated banks.

g. Soil Type: silty sand

h. Exposed Rock: ☐ Yes ☒ No Location: \_\_\_\_\_

i. Give Description and Location of any structures or other property that could be damaged due to additional backwater.

There are no structures located within the floodplain in the vicinity of the bridge. Several structures along Fairforest Creek upstream appear to be well above the floodplain elevation.

#### C. Existing Roadway Geometry

a. Can the existing roadway be closed for an On-Alignment Bridge Replacement

☐ Yes ☒ No

Describe:

Adjacent roadways may not be used for detour allowing closure of the roadway for bridge construction without significant improvements to accommodate traffic.

If "yes", does the existing vertical and horizontal curves meet the proposed design speed criteria?

If "No", will the proposed bridge be:

☐ Staged Constructed

☒ Replaced on New Alignment

## BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

### VI. Field Review (cont.)

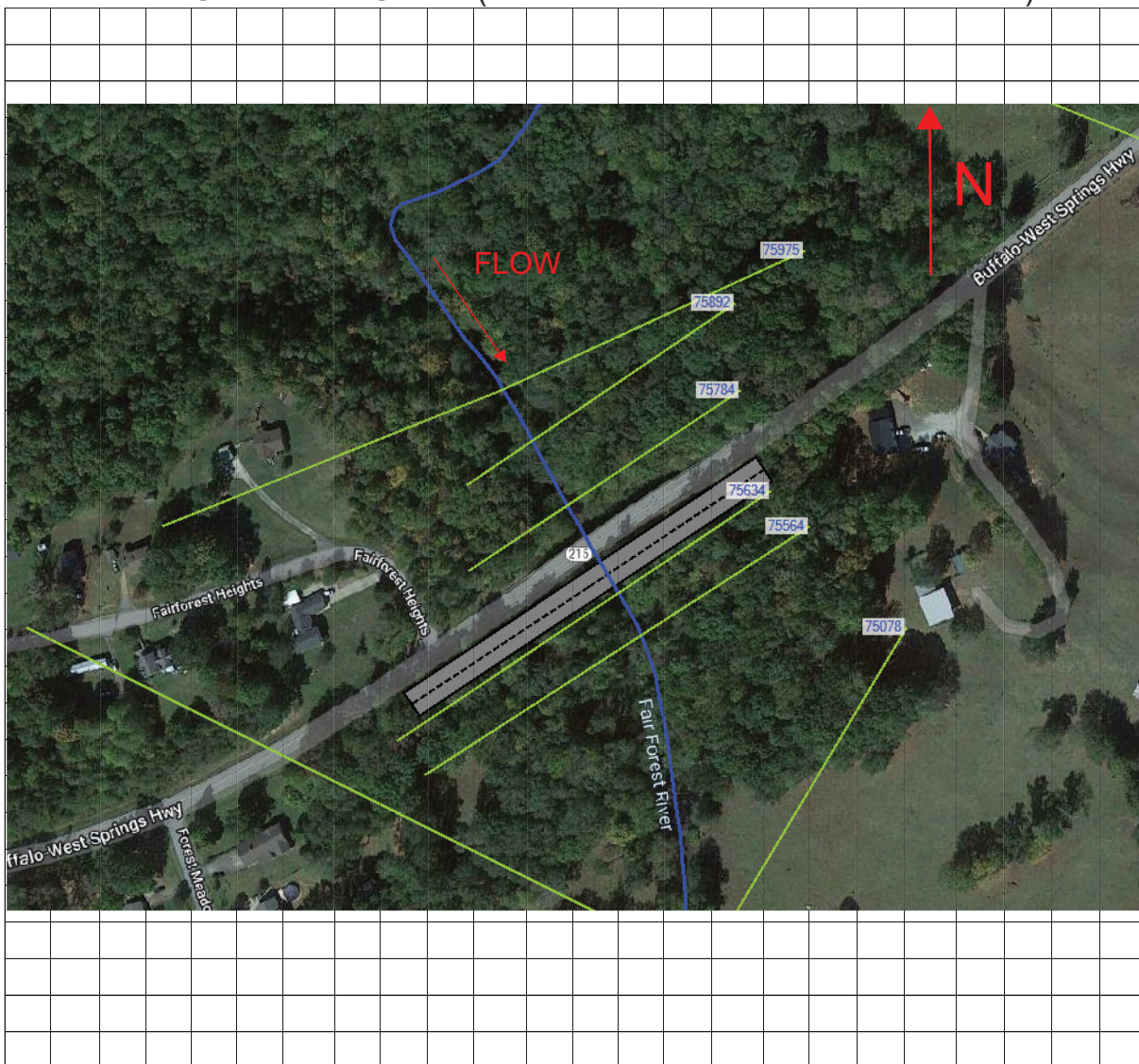
#### A. Proposed Bridge Recommendation:

Length: 296 ft. Width: 42.25 ft. Elevation: 437.76 ft.

Span Arrangement: 70'-70'-91'-65'

Notes: The proposed bridge is aligned approximately 43' downstream of the existing bridge. Piers were relocated outside of the main channel.

#### BRIDGE SITE DIAGRAM: (Show North Arrow and Direction of Flow)



Performed By: Thomas Miller

Title: Hydraulic Engineer

## Appendix D: Floodplains Checklist

**South Carolina Department of Transportation  
Location and Hydraulic Design of Encroachments on Floodplains Checklist**

23 CFR 650, this regulation shall apply to all encroachments and to all actions which affect base floodplains, except for repairs made with emergency funds. Note: These studies shall be summarized in the environmental review documents prepared pursuant to 23 CFR 771.

**I. PROJECT DESCRIPTION**

The South Carolina Department of Transportation (SCDOT) proposes to replace the load restricted bridge crossing of Fairforest Creek along S.C. Route 215 (Buffalo-West Springs Hwy) in Union County.

The proposed improvement would replace the bridge and include associated roadway improvements to accommodate the proposed bridge.

**A. Narrative Describing Purpose and Need for Project**

- a. Relevant Project History:
- b. General Project Description and Nature of Work (attach Location and Project Map):
- c. Major Issues and Concerns:

The primary purpose of the project is to correct the load restriction placed on it as well as restore all bridge components to good condition. Roadway improvements are included to correct existing roadway deficiencies and well as those associated with accommodating the new structure.

The project crosses Fairforest Creek which is shown on the Flood Insurance Rate Map (FIRM) Panel 45087C0200D. Fairforest Creek is designated as a Special Flood Hazard Area Zone A in the vicinity of the project. The project is not expected to be a significant or longitudinal encroachment as defined under 23 CFR 650A, nor is it expected to have an appreciable environmental impact on the base flood elevation. In addition, the project would be developed to comply with all appropriate floodplain regulations and guidelines.

**B. Are there any floodplain(s) regulated by FEMA located in the project area?**

Yes ☒

No ☐

**C. Will the placing of fill occur within a 100-year floodplain?**

Yes ☒

No ☐

D. Will the existing profile grade be raised within the floodplain?

The project will utilize larger spans within the bridge section and the roadway grade will be raised to accommodate the larger bridge structure.

E. If applicable, please discuss the practicability of alternatives to any longitudinal encroachments.

Multiple alternatives including staged construction and full realignment upstream and downstream of the existing structure were studied. Impacts from realignments include potential impacts to residential properties as well as impacts to adjacent roadways. The selected alternative has the least impacts to residential properties.

F. Please include a discussion of the following: commensurate with the significance of the risk or environmental impact for all alternatives containing encroachments and those actions which would support base floodplain development:

a. What are the risks associated with implementation of the action?

Risks are minimal; the project will replace the existing bridge with larger bridge opening. The increased opening will have a negligible impact on the BFE's along the floodplain.

b. What are the impacts on the natural and beneficial floodplain values?

The project is not expected to impact the floodplain values, as the hydraulics will be retained/improved.

c. What measures were used to minimize floodplain impacts associated with the action?

The proposed bridge is of similar length and uses larger spans reducing the number of interior bents/piers within the floodplain.

- d. Were any measures used to restore and preserve the natural and beneficial floodplain values impacted by the action?

Not applicable.

- G. Please discuss the practicability of alternatives to any significant encroachments or any support of incompatible floodplain development.

The impacts are not considered significant encroachments and would not support incompatible floodplain development. The proposed project will have no significant impact to base flood elevations along the stream and will not impact the potential for development within the floodplain.

- H. Were local, state, and federal water resources and floodplain management agencies consulted to determine if the proposed highway action is consistent with existing watershed and floodplain management programs and to obtain current information on development and proposed actions in the affected? Please include agency documentation.

All analysis for the project was performed in accordance with SCDOT, FEMA, and local regulations.

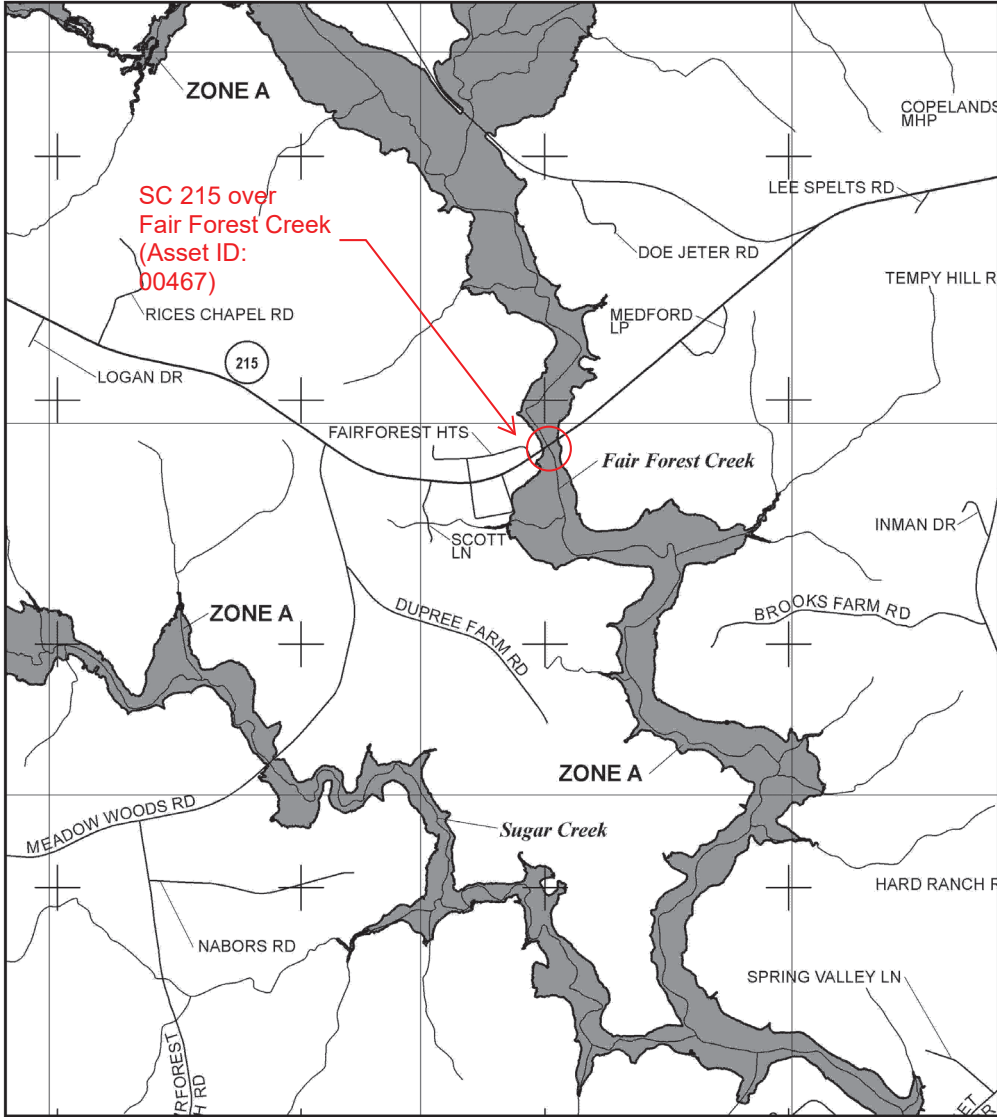
As the project progresses to final construction plans, the hydraulic modeling will be updated based on the final bridge layout.


\_\_\_\_ Thomas Miller \_\_\_\_\_

SCDOT Hydraulic Engineer

\_\_\_\_ 3/3/23 \_\_\_\_\_

Date





**MAP SCALE 1" = 2000'**

1,000 0 1,000 2,000 3,000 4,000 FEET

600 0 600 1,200 METERS

**NFIP**

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0200D**

**FIRM**

**FLOOD INSURANCE RATE MAP**

**UNION COUNTY,**

**SOUTH CAROLINA**

**AND INCORPORATED AREAS**

**PANEL 200 OF 400**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)


CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
UNION COUNTY	450185	0200	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
**45087C0200D**

**EFFECTIVE DATE**  
**AUGUST 2, 2011**

  
**Federal Emergency Management Agency**

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

## Appendix E: Public Involvement Materials

[Sign In](#)



SCDOT Official Website



# Bridge Replacement and Rehab Projects

Closed and Load Restricted Bridge Package 17

Union County

To learn more about each bridge, or to zoom in, click on the orange dot.

+

-



Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

Powered by Esri

## Project Description

The South Carolina Department of Transportation (SCDOT) proposes to replace six bridges in Union County. The projects include replacing the existing bridge structures and constructing the roadway to meet current design and safety standards. The existing facilities are comprised of two lane roadways with 12-foot travel lanes and paved shoulders.

The six bridges are:

1. **US 176 (Whitmire Highway) over Padgetts Creek**
2. **SC 72 (Carlisle Chester Highway) over Coxs Creek**
3. **SC 215 (Buffalo-West Springs Highway) over Fair Forest Creek**
4. **SC 49 (Cross Keys Highway) over Tyger Creek**
5. **SC 49 (Cross Keys Highway) over Fair Forest Creek**
6. **SC 114 (Bobby Faucette Road) over Sandy Run Creek**

## Purpose and Need

The purpose of these projects is to replace the bridges to correct the load restriction placed on them as well as restore all bridge components to good condition. The existing bridges are posted for load restrictions and have one or more components in poor condition. The proposed repairs involve replacing the current bridges with a new bridge on existing or shifted alignments. All of the bridges are open to traffic and would continue to be open using staged construction.

[Sign In](#)



SCDOT Official Website

## Project Materials

### Public Engagement Materials

*(Click on the links below to download)*

- [Public Engagement Comment form](#)

## Projects Schedule

Right of Way Acquisition - Late 2023

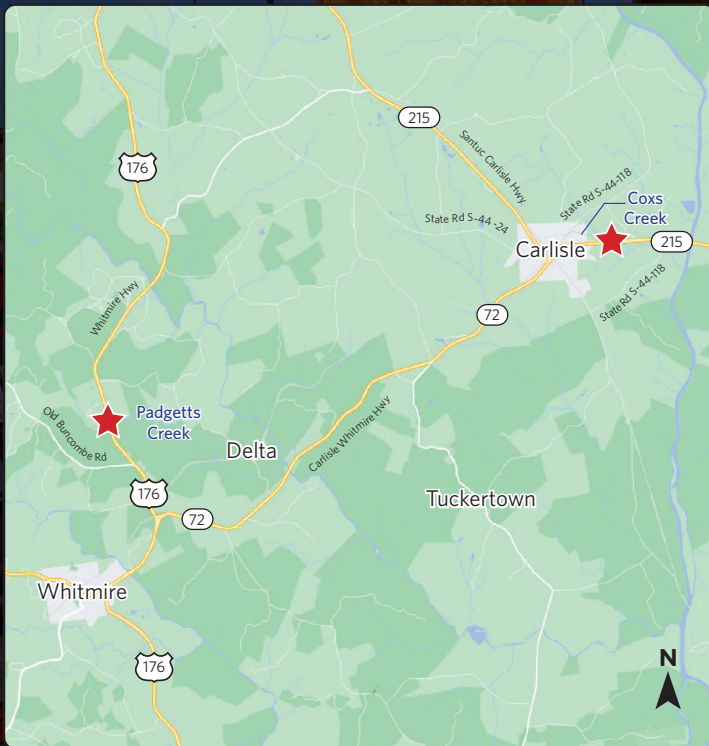
Construction - Spring 2024

Construction Duration ~ 3 years



## PUBLIC ANNOUNCEMENT

### Package 17 Closed and Load Restricted Bridge Replacements in Union County



The South Carolina Department of Transportation (SCDOT) proposes to replace the Package 17 bridges, including the SC 72 bridge over Cocks Creek and the US 176 bridge over Padgett's Creek in Union County. The existing bridges are load restricted and in poor condition. The proposed projects would replace the bridges to restore them to good condition and meet current design and safety standards.

SCDOT invites you to review the proposed projects and provide your comments. Please visit the project website below for more information.

**[www.scdotgis.online/CLRBPackage17\\_Union](http://www.scdotgis.online/CLRBPackage17_Union)**

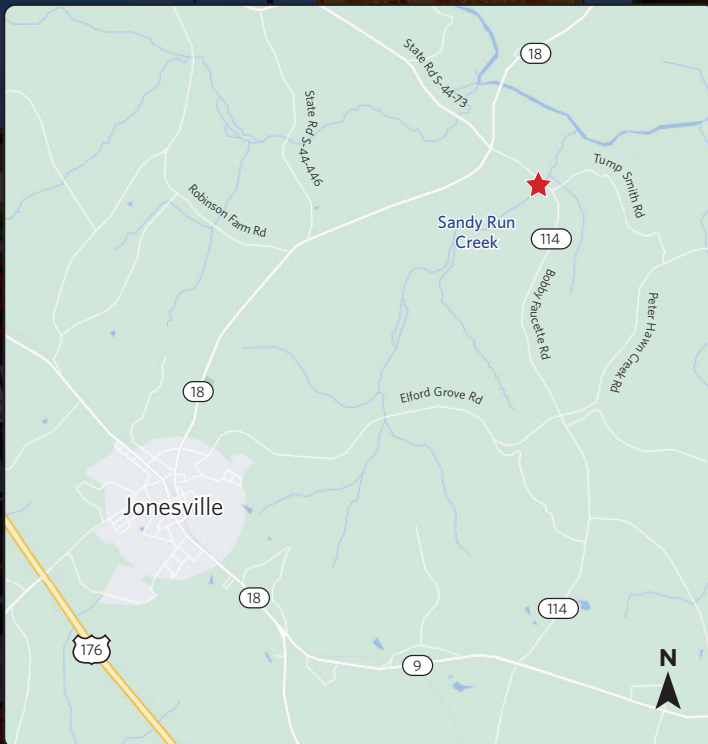
SCDOT will accept official public comments through 03/07/23.

Questions or concerns, please contact the SCDOT Project Manager: Michael Pitts at (803) 737-2566 or [PittsME@scdot.org](mailto:PittsME@scdot.org).



## PUBLIC ANNOUNCEMENT

### Package 17 Closed and Load Restricted Bridge Replacements in Union County



The South Carolina Department of Transportation (SCDOT) proposes to replace the Package 17 bridges, including the SC 114 bridge over Sandy Run Creek in Union County. The existing bridge is load restricted and in poor condition. The proposed project would replace the bridge to restore it to good condition and meet current design and safety standards.

SCDOT invites you to review the proposed project and provide your comments. Please visit the project website below for more information.

[www.scdotgis.online/CLRBPackage17\\_Union](http://www.scdotgis.online/CLRBPackage17_Union)

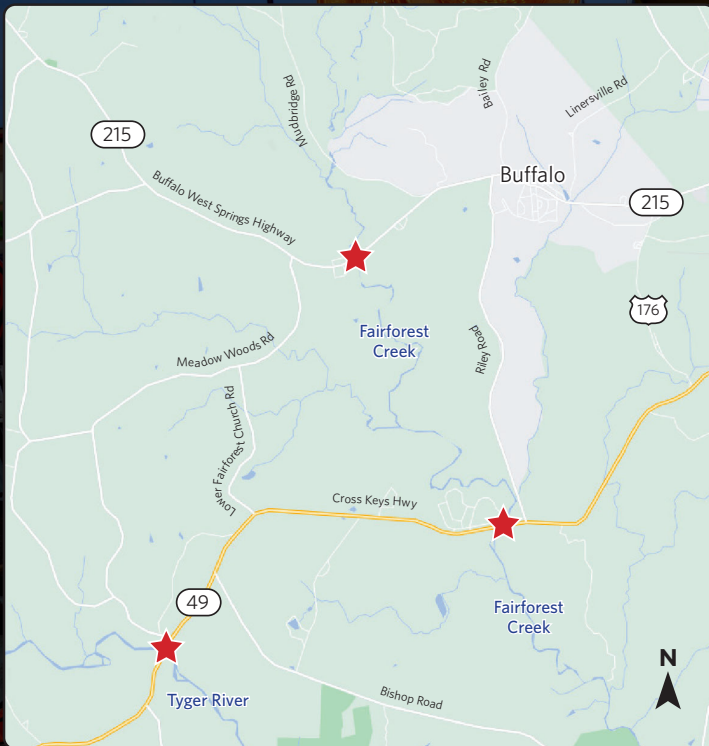
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Questions or concerns, please contact the SCDOT Project Manager: Michael Pitts at (803) 737-2566 or [PittsME@scdot.org](mailto:PittsME@scdot.org).



## PUBLIC ANNOUNCEMENT

### Package 17 Closed and Load Restricted Bridge Replacements in Union County



The South Carolina Department of Transportation (SCDOT) proposes to replace the Package 17 bridges, including the SC 215 bridge over Fairforest Creek, SC 49 bridge over Fairforest Creek, and SC 49 bridge over Tyger River in Union County. The existing bridges are load restricted and in poor condition. The proposed projects would replace the bridges to restore them to good condition and meet current design and safety standards.

SCDOT invites you to review the proposed projects and provide your comments. Please visit the project website below for more information.

[www.scdotgis.online/CLRBPackage17\\_Union](http://www.scdotgis.online/CLRBPackage17_Union)

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Questions or concerns, please contact the SCDOT Project Manager: Michael Pitts at (803) 737-2566 or [PittsME@scdot.org](mailto:PittsME@scdot.org).



**ENVIRONMENTAL SERVICES  
OFFICE PO BOX 191  
COLUMBIA SOUTH CAROLINA 29202**

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PERMIT NO. 108

To speak with an interpreter, please contact  
SCDOT at (855) 467-2368  
or (803) 737-1200.

Para hablar con un intérprete, comuníquese  
con SCDOT al (855) 467-2368 número  
gratuito ó (803) 737-1200.

\*\*\*\*\*ECRWSEDDM\*\*\*\*\*

Postal Customer

Comment ID	Date	Full Name	Email	Street Address	City	Zipcode	Do you wish to receive a response to this comment?	How would you like a response?	Comment	Response
1	2/7/2023 12:46	Tommy Grady	tgrady@ed.sc.gov	3915 Cross Keys Hwy	UNION	29379	Yes	By Email	Will the bridges on Hwy 49, over the Tyger River, and Fairforest Creek be used while a new bridge is built beside the existing one's.	Yes. The Hwy 49 over Tyger River and Fairforest Creek bridges will be constructed using staged construction with traffic utilizing the existing bridge until the new bridge is built.
2	2/8/2023 0:56	Jackson Hurst	ghostlightmater@yahoo.com	4216 Cornell Crossing	Kennesaw, GA	30144	Yes	By Email	I approve and support SCDOT's Closed and Load Restricted Bridge Package 17 Project. The aspect that I love about SCDOT's Closed and Load Restricted Bridge Package 17 Project is that the following bridges: US 176 (Whitmire Highway) over Padgett's Creek, SC 72 (Carlisle Chester Highway) over Cox Creek, SC 215 (Buffalo-West Springs Highway) over Fair Forest Creek, SC 49 (Cross Keys Highway) over Tyger Creek, SC 49 (Cross Keys Highway) over Fair Forest Creek, and SC 114 (Bobby Faucette Road) over Sandy Run Creek will be replaced with new bridges that are safer and up to current design standards.	Thank you for your comments.
3	2/8/2023 1:44	Jackie Johnson	jackiejohnson101861@gmail.com	687 GALILEE CHURCH RD	UNION	29379	Yes	By phone	W	Michael Pitts spoke to Ms. Johnson by phone on 2/24/23. He addressed her concerns, and she mentioned she was happy to hear the six Union County bridges being replaced.
4	2/8/2023 14:14	Tabetha James	April.james7@gmail.com	111 Spencer Rd	Jonesville	29353	No		The fact that we could possibly be saying "I wish we would have addressed the issue before someone had to die" makes the projects a no-brainer. Preservation of life should always take precedence.	Thank you for your comments.
5	2/8/2023 21:08	Philip D. Poole II	knightme38@yahoo.com	112 Fairforest Heights	Buffalo	29321	Yes	By Email	I own the property at the bridge on the left side if you where traveling towards Buffalo.I want to know if my land would be affected.I see flags on it way off the road?Would like to know what side of the bridge is the new one going to be?	Mr. Pitts discussed over the phone with Mr. Poole that the current conceptual design is shifting away from his property with no current right-of-way impacts. Conceptual designs are subject to change if a design-build contractor proposes a different design through the Alternative Technical Concept (ATC) process.

6	2/9/2023 14:16	Patricia McGinnis	Pjmcginnis76@gmail.com	2363 Buffalo west springs highway	Buffalo	29321	Yes	By_Email	Repairing these bridges would be fine but what you're going to do is just shut them all down and leave them close for long periods of time and when you do that you're going to basically be stranding union we can't get to I 26 now we won't be able to get to Lauren's or Greenville . We will either have to go through Chester or Spartanburg. You're going to be stranding an entire community of thousands of people know if you can shut down a bridge, fixed it and then moved on to another bridge that would be great but that's not what you do you just shut down the bridge and come back a couple years later if ever	The proposed bridge replacements will be constructed using staged construction with traffic utilizing the existing bridge until the new bridge is built. The bridges will not be closed during construction but will remain open to traffic until the new bridges are built with the exception of SC 114 which is being proposed with closing and detouring traffic to expedite construction.
7	2/14/2023 4:17	James Knight	Cliffknight69@gmail.com	801 Meadow Woods Road	Buffalo	29322	Yes	By_Email	I truly think this project is great and much needed, but as our bridges are in desperate need of repair so are the miles of roads around union . It just seems that regardless of what we as a community do (call,fill out form online ) the roads are put on the back burner. I mean to put it in perspective my road has sub-base failure and also has a section of road that in the spring the grass needs to be cut coming out of the road in a 100' section. Again it's great the bridges are being repaired but that is a small section of roadway compared to the amount of roads in need of obvious repairs. Any clarity on this matter would be greatly appreciated.I have had to replace 2 rims due to the road conditions which are out of our control and can't get reimbursed due to the process of being denied because, o we didn't know about it so we can't be responsible.	Thank you for your comment. SCDOT is actively repairing the roadways as well. Please use SCDOT's Project Viewer to keep up to date on what roads are being repaired around you. <a href="https://www.scdot.org/business/projectviewer.aspx">https://www.scdot.org/business/projectviewer.aspx</a> . For information regarding vehicular damage caused by our roadways, please use the website: <a href="https://www.scdot.org/travel/Travel-DamageClaims.aspx">https://www.scdot.org/travel/Travel-DamageClaims.aspx</a>
8	2/21/2023 2:29	Don Sawyer	angusman914@gmail.com	1162 Meadow Woods Rd.	Buffalo	29321	No		If you intend to raise the bridges in the process, please consider raising the any adjacent roads as well, like Meadow Woods Rd. at Tyger River Bridge. Several years back, SCDOT raised the interstate bridges along I-385, but didn't raise the ramps, now you can't see over the bridge railings to see oncoming traffic pulling out of the stop sign at the ramps. SCDOT lowered the speed limit, but I'd rather see what's coming, than depend on someone going slow. If you don't understand the comment, take a low riding sedan for a southbound trip on I-385 and take exit 5 ramp, and turn left onto Hwy 49.	

## Mathis, Jennifer

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**From:** Pitts, Michael E. <PittsME@scdot.org>  
**Sent:** Friday, May 26, 2023 7:51 AM  
**To:** Cliffknight69@gmail.com  
**Subject:** 4462250 SCDOT Bridge Package 17 - Union County

Good Morning –

Please see below to view the response to your comment submitted during the public comment period with regards to the Union county bridge replacements.

Comment	Response
I truly think this project is great and much needed, but as our bridges are in desperate need of repair so are the miles of roads around union . It just seems that regardless of what we as a community do (call, fill out form online ) the roads are put on the back burner. I mean to put it in perspective my road has sub-base failure and also has a section of road that in the spring the grass needs to be cut coming out of the road in a 100' section. Again it's great the bridges are being repaired but that is a small section of roadway compared to the amount of roads in need of obvious repairs. Any clarity on this matter would be greatly appreciated. I have had to replace 2 rims due to the road conditions which are out of our control and can't get reimbursed due to the process of being denied because, o we didn't know about it so we can't be responsible.	Thank you for your comment. SCDOT is actively repairing the roadways as well. Please use SCDOT's Project Viewer to keep up to date on what roads are being repaired around you. <a href="https://www.scdot.org/business/projectviewer.aspx">https://www.scdot.org/business/projectviewer.aspx</a> . For information regarding vehicular damage caused by our roadways please use the website: <a href="https://www.scdot.org/travel/travel-DamageClaims.aspx">https://www.scdot.org/travel/travel-DamageClaims.aspx</a>

Thank you for your comment and please continue to check the project website for updates.



**Michael E. Pitts, P.E., Assoc. DBIA**

*Alternative Delivery Program Manager*

**P** 803.737.2566    **M** 803.413.9316    **E** [pittsme@scdot.org](mailto:pittsme@scdot.org)

955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

**LET 'EM WORK. LET 'EM LIVE.**

## Mathis, Jennifer

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**From:** Pitts, Michael E. <PittsME@scdot.org>  
**Sent:** Friday, May 26, 2023 7:49 AM  
**To:** Pjmcginnis76@gmail.com  
**Subject:** 4462250 SCDOT Bridge Package 17 - Union County

Good Morning –

Please see below to view the response to your comment submitted during the public comment period with regards to the Union county bridge replacements.

Comment	Response
Repairing these bridges would be fine but what you're going to do is just shut them all down and leave them close for long periods of time and when you do that you're going to basically be stranding union we can't get to I 26 now we won't be able to get to Lauren's or Greenville . We will either have to go through Chester or Spartanburg. You're going to be stranding an entire community of thousands of people know if you can shut down a bridge, fixed it and then moved on to another bridge that would be great but that's not what you do you just shut down the bridge and come back a couple years later if ever.	The proposed bridge replacements will be constructed using staged construction with traffic utilizing the existing bridge until the new bridge is built. The bridges will not be closed during construction but will remain open to traffic until the new bridges are built with the exception of SC 114 which is being proposed with closing and detouring traffic to expedite construction.

Thank you for your comment and please continue to check the project website for updates.



**Michael E. Pitts, P.E., Assoc. DBIA**

*Alternative Delivery Program Manager*

**P** 803.737.2566    **M** 803.413.9316    **E** [pittsme@scdot.org](mailto:pittsme@scdot.org)

955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

**LET 'EM WORK. LET 'EM LIVE.**

## Mathis, Jennifer

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**From:** Pitts, Michael E. <PittsME@scdot.org>  
**Sent:** Friday, May 26, 2023 7:45 AM  
**To:** knightme38@yahoo.com  
**Subject:** 4462250 SCDOT Bridge Package 17 - Union County

Good Morning –

Please see below to view the response to your comment submitted during the public comment period with regards to the Union county bridge replacements.

Comment	Response
I own the property at the bridge on the left side if you were traveling towards Buffalo. I want to know if my land would be affected. I see flags on it way off the road? Would like to know what side of the bridge is the new one going to be?	Mr. Pitts discussed over the phone with Mr. Poole that the current conceptual design is shifting away from his property with no current right-of-way impacts. Conceptual designs are subject to change if a design-build contractor proposes a different design through the ATC (Alternative Technical Concept) Process.

Thank you for your comment and please continue to check the project website for updates.



**Michael E. Pitts, P.E., Assoc. DBIA**

*Alternative Delivery Program Manager*

**P** 803.737.2566    **M** 803.413.9316    **E** [pittsme@scdot.org](mailto:pittsme@scdot.org)

955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

**LET 'EM WORK. LET 'EM LIVE.**

## Mathis, Jennifer

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**From:** Pitts, Michael E. <PittsME@scdot.org>  
**Sent:** Friday, May 26, 2023 7:38 AM  
**To:** April.james7@gmail.com  
**Subject:** 4462250 SCDOT Bridge Package 17 - Union County

Good Morning –

Please see below to view the response to your comment submitted during the public comment period with regards to the Union county bridge replacements.

Comment	Response
The fact that we could possibly be saying “I wish we would have addressed the issue before someone had to die” makes the projects a no-brainer. Preservation of life should always take precedence.	Thank you for your comments.

Thank you for your comment and please continue to check the project website for updates.



**Michael E. Pitts, P.E., Assoc. DBIA**

*Alternative Delivery Program Manager*

**P** 803.737.2566    **M** 803.413.9316    **E** [pittsme@scdot.org](mailto:pittsme@scdot.org)

955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

**LET 'EM WORK. LET 'EM LIVE.**

## Mathis, Jennifer

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**From:** Pitts, Michael E. <PittsME@scdot.org>  
**Sent:** Friday, May 26, 2023 7:37 AM  
**To:** Jackson Hurst  
**Subject:** RE: 4462250 SCDOT Bridge Package 17 - Union County

Good Morning –

Please see below to view the response to your comment submitted during the public comment period with regards to the Union county bridge replacements.

Comment	Response
I approve and support SCDOT's Closed and Load Restricted Bridge Package 17 Project. The aspect that I love about SCDOT's Closed and Load Restricted Bridge Package 17 Project is that the following bridges: US 176 (Whitmire Highway) over Padgetts Creek, SC 72 (Carlisle Chester Highway) over Coks Creek, SC 215 (Buffalo-West Springs Highway) over Fair Forest Creek, SC 49 (Cross Keys Highway) over Tyger Creek, SC 49 (Cross Keys Highway) over Fair Forest Creek, and SC 114 (Bobby Faucette Road) over Sandy Run Creek will be replaced with new bridges that are safer and up to current design standards.	Thank you for your comments.

Thank you for your comment and please continue to check the project website for updates.



**Michael E. Pitts, P.E., Assoc. DBIA**

*Alternative Delivery Program Manager*

**P** 803.737.2566    **M** 803.413.9316    **E** [pittsme@scdot.org](mailto:pittsme@scdot.org)

955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

**LET 'EM WORK. LET 'EM LIVE.**

## Mathis, Jennifer

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**From:** Pitts, Michael E. <PittsME@scdot.org>  
**Sent:** Friday, May 26, 2023 7:35 AM  
**To:** tgrady@ed.sc.gov  
**Subject:** 4462250 SCDOT Bridge Package 17 - Union County

Good Morning –

Please see below to view the response to your comment submitted during the public comment period with regards to the Union county bridge replacements.

Comment	Response
Will the bridges on Hwy 49, over the Tyger River, and Fairforest Creek be used while a new bridge is built beside the existing ones.	Yes. The Hwy 49 over Tyger River and Fairforest Creek bridges will be constructed using staged construction with traffic utilizing the existing bridge until the new bridge is built.

Thank you for your comment and please continue to check the project website for updates.



**Michael E. Pitts, P.E., Assoc. DBIA**

*Alternative Delivery Program Manager*

**P** 803.737.2566    **M** 803.413.9316    **E** [pittsme@scdot.org](mailto:pittsme@scdot.org)

955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

**LET 'EM WORK. LET 'EM LIVE.**

## Appendix F: USCG Permit Exclusion Checklist

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Fourteenth Coast Guard District

909 SE 1<sup>st</sup> Ave. Ste 432  
Miami, FL 33131-3028  
Staff Symbol: (dpb)  
Phone: (305) 415-6747  
Fax: (305) 415-6763  
Email: [Omar.Beceiro@uscg.mil](mailto:Omar.Beceiro@uscg.mil)

16591/SC  
June 21, 2023

Federal Highway Administration  
Attn: Dr. Sandra Saint-Surin  
1835 Assembly Street, Suite 1270  
Columbia, SC 29201

Delivered via e-mail: [sandra.saintsurin@dot.gov](mailto:sandra.saintsurin@dot.gov)

Dear Dr. Saint-Surin:

In response to the 144c checklist received on June 21, 2023, regarding a U.S. Coast Guard bridge permit determination for the replacement of the SC 215 Bridge across Fairforest Creek, Union County, South Carolina, we concur with the findings that a Coast Guard bridge permit is not required.

Although this project will not require a bridge permit, we do require certain information to ensure we have accurate records for all bridges across this waterway. Please submit photographs and as-built drawings of both plan and elevation views of the bridge upon completion of the project. Plans should be in the standard 8 ½ x 11 inch format. The drawings, along with the enclosed Completion Report Form, must indicate the vertical clearance from ordinary high water to the lowest portion of the bridge and horizontal clearance, pier face to pier face, or bank to bank, in the main navigation span.

In addition, the requirement to display navigational lighting at the aforementioned bridge is hereby waived, per Title 33 Code of Federal Regulations, Part 118.40(b). This waiver may be rescinded at any time in the future should nighttime navigation through the proposed bridge be increased to a level determined by the District Commander to warrant lighting.

Should you have any questions concerning this determination, please contact my representative Mr. Omar Beceiro at (305) 415-6747 or by email at [Omar.Beceiro@uscg.mil](mailto:Omar.Beceiro@uscg.mil).

Sincerely,

A handwritten signature in blue ink, appearing to read "Randall D. Overton".

RANDALL D. OVERTON, MPA  
Director, District Bridge Program  
U.S. Coast Guard  
By Direction

Enclosure: Completion Report Form

## Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

### INSTRUCTIONS FOR USE

This form provides the process for FHWA's preliminary determination to make an exception under 23 U.S.C. § 144(c)(2) to Coast Guard bridge permitting authorities. It is recommended that State DOT and/or FHWA division offices complete this form.

Section V of the 2014 USCG-FHWA Memorandum of Agreement (MOA) provides that FHWA makes the preliminary exception determination, followed by Coast Guard review to identify issues or concerns with FHWA's preliminary determination. The preliminary determination shall be made at an early stage of project development (as soon as the information is available to the applicant) so that coordination with the local Coast Guard District Bridge Office (DBO) can be accomplished before or during environmental processing (23 CFR Part 650.805(a)).

If the DBO identifies issues or concerns with the determination of the FHWA Division Office, he/she will identify the area of concern by marking the appropriate answer in the **"DBO Concerns"** areas included in this checklist. The DBO will also include written comments **"DBO Comments"** and supporting documentation with this form and return it to the FHWA Division Office. Any disputes resulting from this exception determination process will be resolved in accordance with the Dispute Resolution Section of the 2014 USCG-FHWA MOA.

When both the DBO and FHWA Division Office agree that a 23 U.S.C. 144(c)(2) exception applies to a project, the DBO will provide written concurrence to the FHWA division office. In addition, the DBO will identify if the proposed bridge will require the establishment, maintenance, and operation of lights and signals as required by 14 U.S.C. § 85 and 33 CFR Part 118 at that time.

The use of 23 U.S.C. § 144(c)(2) exceptions cannot be delegated to state transportation agencies as part of a NEPA assignment agreement.

1. Name of waterway:

Fairforest Creek

2. Has the waterway at the project location determined to be navigable waters of the United States per 33 CFR Part 2.36?

☒ Yes      ☐ No      ☐ Do Not Know

(If "No", then no USCG jurisdiction. If you do not know, contact DBO for confirmation of waterway status.)

3. At proposed site, mileage along waterway measured from mouth or confluence:

13 miles

4. Waterway is a tributary of Tyger River at mile 13 (if applicable).

## Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

Geographical location (city, state, county): **Union, SC, Union County**

5. Lat-Long coordinates (if known, as precise as possible):

a. Latitude: **34° 42' 58.81" N** (N) (Example: 40° 48' 3.49" N)

b. Longitude: **-81° 42' 34.89" W** (W) (Example: -73° 47' 16.19" W)

6. Is there an existing bridge at, or near the above location?

☒ Yes ☐ No (if "Yes" please answer questions 7a-7b)

a. Does this bridge have a USCG or Army Corps of Engineers permit?

☐ Yes ☐ No ☒ Do Not Know

b. Please provide vertical and horizontal clearances at:

☐ Normal Pool ☐ Mean High Water ☒ Ordinary High Water

Vertical: **5** (feet)

Horizontal: **55** (feet) Datum: **NAD83**

7. Is the waterway tidal (As defined by the process outlined on pages 7-8)?

☐ Yes ☒ No **DBO Concerns** ☐ Yes ☐ No

**DBO Comments:**

8. Is the waterway used by recreational, fishing or other vessels greater than 21 feet in length?

☐ Yes ☒ No **DBO Concerns** ☐ Yes ☐ No

**DBO Comments:**

9. Is the waterway used to transport interstate or foreign commerce? (If Yes, permit might be required)

☐ Yes ☒ No ☐ Do Not Know **DBO Concerns** ☐ Yes ☐ No

**DBO Comments:**

10. Is the waterway susceptible for use in its natural condition or by reasonable improvement as a means to transport interstate or foreign commerce? (If Yes, permit might be required)

☐ Yes ☒ No **DBO Concerns** ☐ Yes ☐ No

**DBO Comments:**

11. Are there any Army Corps of Engineers permitted structures (piers, docks, dams,



## Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

powerlines) on the waterway?<sup>1</sup> (contact USCG and/or Army Corps of Engineers to verify] (if **yes**, please attach document with names + locations (mile #))

☐ Yes

☒ No

☐ Do Not Know

**DBO Concerns** ☐ **Yes** ☐ **No**

### **DBO Comments:**

### **Waterway information at proposed bridge site (if available/applicable)**

12. Water depth at high tide (ft):

N/A

13. Water depth at normal pool (ft):

N/A

14. Water depth at MLW or MLLW (ft):

N/A

15. Tidal range MHW to MLW or MHHW to MLLW (ft):

N/A

16. Datum used for depths:

N/A

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<sup>1</sup> This question seeks to determine whether the Army Corps of Engineers has asserted jurisdiction over the waterway or reach thereof by the issuance of a Jurisdictional Determination, or the issuance of permits of any type including those for structures under Section 10 of the Rivers and Harbors Act (33 U.S.C. § 403), or through any other USACE permitting authority including the Clean Water Act § 404.

## Assessment and Response Checklist and Flowchart for Applying 23 U.S.C. § 144(c)(2) exceptions to Coast Guard Bridge Permits

### Additional Documentation

Please include the following information when submitting to the DBO:

- ☒ Location Map (8 ½" x 11")
- ☒ Photo of existing bridge (if any) or proposed bridge location taken from the prospective of the waterway

#### **NEXT STEP:**

When both the DBO and FHWA Division Office agree that the 144(c)(2) exception applies to a project, the DBO will write a letter to that effect to the FHWA Division Office, attaching the completed checklist. In addition, in that letter the DBO will identify if the proposed bridge will require the establishment, maintenance, and operation of lights and signals as required by 14 U.S.C. § 85 and 33 CFR Part 118.





Photograph 1 – Stream 1 (Fairforest Creek), SC-215 Bridge  
Facing South, Downstream