U.S. Department of Transportation
Federal Highway Administration

South Carolina

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

November 12, 2015

In Reply Refer To:
HDA-SC

Ms. Heather Robbins
Acting Director, Environmental Services Office
South Carolina Department of Transportation
955 Park Street, P.O. Box 191
Columbia, SC 29202

Dear Ms. Robbins:

The South Carolina Department of Transportation (SCDOT) recently submitted a Categorical Exclusion (CE) for the Proposed Emergency Replacement of the SC Route 34 Bridge over Hellers Creek in Newberry County, South Carolina (Federal Project Number ER SC16-1). The FHWA has determined that the project will not have significant impacts and that there will be no effect on threatened or endangered species or adverse impacts to historic resources. Enclosed is the approved CE for the project.

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 you may have concerning this project to Mr. J. Shane Belcher at 803-253-3187 or jeffrey.belcher@dot.gov.

Sincerely,

(for) Emily O. Lawton
Division Administrator

Enclosure

November 10, 2015

CATEGORICAL EXCLUSION
TYPE C

PIN/Project ID: P029349
Federal Project Number: ER# SC16-1
DR-4241

To: Federal Highway Administration

From: SCDOT, Heather M. Robbins, NEPA Division Manager

Project: Emergency SC-34 Bridge Replacement over Hellers Creek in Newberry County

Project Description: The South Carolina Department of Transportation (SCDOT) proposes to replace the existing bridge on SC-34 over Hellers Creek that was damaged during the 2015 Flood Event. The existing two-lane bridge is approximately 27 feet by 90 feet and has experienced a permanent lateral displacement. This lateral displacement damaged the protective bracings underneath the bridge and also caused a washout on the east side of the bridge. Repair has been determined to not be practicable and full replacement is recommended due to damage.

Purpose and Need: The purpose of this project is to replace a bridge damaged by the 2015 Flood Event.

Project Funding:
The total project cost is estimated between $3.5-4.5 Million.

Preferred Alternative – Replace bridge off-alignment to the North:
Replacing the bridge off-alignment allows the roadway to remain open to traffic and to avoid a detour. The avoided detour would be 16 miles and inconvenient for trucks and non-local traffic. SC-34 is an evacuation route for VC Summer Nuclear Station and is used by trucks from Blair Rock Quarry. The replacement bridge will be the same length or longer than the existing bridge. The replacement bridge will be the same height or higher than the existing bridge. There are no anticipated relocations with this alternative.

Alternatives Analysis

There were four alternatives that were considered. The No Build Alternative was carried forward for a baseline comparison of impacts.

Alternative 1 – No Build
Based on the assessment completed by SCDOT and FHWA engineers, not repairing or replacing the bridge is not an option due to safety. This alternative is not feasible due the damage from the 2015 Flood Event.

Alternative 2 – Replace bridge on-alignment
This alternative would require the closing of the bridge for approximately 3-4 months. The detour for this alternative would be 16 miles and inconvenient for trucks and non-local traffic. SC-34 is an evacuation route for VC Summer Nuclear Station and is used by trucks from Blair Rock Quarry. Potential cost of this alternative ranges between $2.5-3.0 Million. There are no anticipated relocations with this alternative.

Alternative 3– Replace bridge off-alignment to the South
Replacing the bridge off-alignment allows the roadway to remain open and to avoid a detour. There are 3 anticipated relocations with this alternative.

Alternative 4 (preferred)– Replace bridge off-alignment to the North
Replacing the bridge off-alignment allows the roadway to remain open and to avoid a detour. There are no anticipated relocations with this alternative.

Acquisitions /Displacements

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 Ace 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.

Section 106 - Cultural Resources (Archaeological/Historic)

In accordance with 36 CFR 800.4, background research of the project's Area of Potential Effects (APE) and an archaeological field survey was conducted on October 29, 2105.

The majority of the study area was found to have been previously impacted by utility lines, roadside ditches, and similar modern disturbances, or to be too low lying or steeply sloping to be the likely locus of in-situ cultural resources. No artifacts or archaeological features were noted during the pedestrian reconnaissance, and all of the shovel tests were negative. Based on the results of background research and field investigations, it was determined that no historic properties would be affected by the project. No additional investigations are recommended (see Appendix).

Section 4f/6f

No section 4(f) or 6(f) properties were identified within the project boundaries.

Water Quality

Hellers Creek is located within the Cannons Creek-Broad River watershed (HUC 03050106-04) Watershed 03050106-04 is located in Newberry and Fairfield Counties and consists primarily of the Broad River and its tributaries from the Tyger River to the Parr Shoals dam. On November 10, 2015, the SCDHEC's Notice of Intent Water Quality Information Tool was accessed to determine if any impaired waters were located upstream or downstream from proposed bridge replacement over Hellers Creek (see Appendix). Ecoli and Macroinvertabrates were the only parameters assessed in the

vicinity of the bridge, at Station B-047 upstream in the Broad River, that had standards not supported. There were no stations directly upstream from Hellers Creek and downstream Hellers Creek had only one parameter assessed. Hellers Creek is also in a Total Maximum Daily Load (TMDL) approved watershed for Ecoli.

The proposed project is not expected to have long term impacts to water quality in the watersheds. Stormwater control measures, both during construction and post-construction, are required for SCDOT projects constructed in the vicinity of 303(d), TMDL, ORW, tidal, and other sensitive waters in accordance with the SCDOT's MS4 Permit.

The contractor would also be required to minimize potential impacts through implementation of construction best management practices, reflecting policies contained in 23 CFR 650 B and SCDOT's Supplemental Specifications on Seeding and Erosion Control Measures (November 11, 2008). SCDHEC may require additional water quality protection and storm water treatment measures during and after construction.

Wetlands and Streams

The project corridor was field reviewed in October, 2015 for the presence of jurisdictional waters of the U.S. and waters, including wetlands and streams. The field review identified Hellers Creek, but did not identify any wetlands areas surrounding the bridge.

Permitting

A Department of the Army Section 404 permit is required for impacts to jurisdictional waters of the U.S., including wetlands. Section 404 is administered by the United States Army Corps of Engineers (USACE). Depending on the type and extent of jurisdictional waters of the U.S., including wetlands, to be impacted, Section 404 permitting requirements can range from activities that are considered exempt or preauthorized to those requiring pre-construction notification (PCN) for a Nationwide Permit (NWP) or Individual Permit (IP) from the USACE.

Based on preliminary engineering, it is anticipated that a Nationwide 3 would be required for this project

Floodplains

The proposed project is located within Zone A of Federal Emergency Management Agency (FEMA) floodplain map (see Appendix). Zone A are areas where no base flood elevations are determined. Zone A areas are subject to inundation by the 1% annual chance of flooding.

Threatened and Endangered Species

Pursuant to Section 7 of the Endangered Species Act a field survey was conducted on the proposed new right of way. The following list of species that are endangered (E), threatened (T) and Bald and Golden Eagle Protection Act (BGEPA) was obtained from the U.S. Fish and Wildlife Service:

	Federally Protected Species	Scientific Names	Federal Status
Animals	Bald Eagle	*Haliaeetus leucocephalus*	BGEPA
	Wood Stork	*Mycteria americana*	E
Plants	None		

Results

Based on the literature and field visits it was determined that no listed species would be affected by the proposed project.

Noise

The proposed improvements do not represent a Substantial Horizontal Alteration. 23 CFR 772 states, “A substantial horizontal alteration would occur on a project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition.” Also, this project does not include the addition of through traffic lanes, a significant change in vertical alignment or any other conditions that would qualify it as a Type I project. Therefore, the requirements for conducting noise studies under 23 CFR 772 do not apply.

Mobile Source Air Toxics (MSATs)

This project has been determined to generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on an FHWA analysis using EPA's MOVES2010b model even if vehicle-miles travelled (VMT) increases by 102 percent as assumed from 2010 to 2050, a combined reduction of 83 percent in the total annual emissions for the priority MSAT is projected for the same time period. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Land Use

The proposed bridge replacement is located on in Newberry County, South Carolina. Land use in the surrounding areas is made up of residential development and woodland areas. The proposed bridge is also located near the Sumter National Forest. The bridge replacement is not expected to modify existing land use or change the timing or density of development in the area. The project is not in conflict with any plan, existing land use, or zoning regulation.

Hazardous Materials

The area directly adjacent to the bridge replacement predominately consists of residential and woodland area with low potential for underground storage tanks (USTs). Therefore, there is low potential for uncovering USTs or other hazardous-material-containing sites during construction activities.

An examination of the project area and records available at the South Carolina Department of Health and Environmental Control (DHEC) by the Department indicated that there are no USTs or Leaking USTs within the project study area.

It is SCDOT's practice to avoid the acquisition of USTs and other hazardous waste materials, if at all possible. If soils that appear to be contaminated with petroleum products were encountered during construction, SCDHEC would be informed. If avoidance were not a viable alternative, tanks and other hazardous materials would be tested and removed and/or treated in accordance with the US EPA and SCDHEC requirements. Costs necessary for cleanup would be taken into consideration during the right-of-way appraisal and acquisition process.

11/12/2015
Date

Heather M. Lobbis
Environmental Project Manager

11/12/2015
Date

Federal Highway Administration

Date: 11/09/2015	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	

Project ID : P029349 | County : Newberry | District : District 2 | Doc Type: CE-C | Total # of Commitments: 6

Project Name: Emergency SC-34 Bridge Replacement over Hellers 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: Heather Robbins **PHONE #:** (803)-737-1399

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Cultural Resources Responsibility: CONTRACTOR

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.

USTs/Hazardous Materials Responsibility: CONTRACTOR

If avoidance of hazardous materials is not a viable alternative and soils that appear to be contaminated are encountered during construction, the South Carolina Department of Health and Environmental Control (SCDHEC) will be informed. Hazardous materials will be tested and removed and/or treated in accordance with the United States Environmental Protection Agency and the SCDHEC requirements, if necessary.

Water Quality Responsibility: CONTRACTOR

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

Project ID : P029349	SCDOT NEPA ENVIRONMENTAL COMMITMENTS FORM	SCDOT ENVIRONMENTAL SERVICES

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Migratory Bird Treaty Act (all bridge and box culvert projects) — 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 Department 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. Prior to construction/demolition of the bridges the Resident Construction Engineer (RCE) will coordinate with SCDOT Environmental Services Compliance Office to determine if there are any active nests on the bridge. After this coordination, it will be determined whether construction/demolition can begin. After construction/demolition has begun, measures can be taken to prevent birds from nesting, such as screens, noise producers, and deterrents etc. If during construction or demolition a nest is observed on the bridge that was not discovered during the biological surveys, the contractor will cease work and immediately notify the RCE, who will contact SCDOT Environmental Services Compliance Office. SCDOT biologists will determine whether the nest is active and the species utilizing the nest. After this coordination, it will be determined whether construction/demolition can resume or whether a temporary moratorium will be put into effect. All costs for determining the need for, the placing of deterrents, and applying of all special actions including, but not limited to, removing nests and any costs associated with conducting work in compliance with the Migratory Bird Treaty Act as stated herein will not be paid for separately but will be considered to have been included with other items of work.

Stormwater — Responsibility: CONTRACTOR

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).

General Permit — Responsibility: SCDOT

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.

Cultural Resources Project Screening Form

File Number: | PIN: NA | Route: SC 34 | County: Newberry

Project Name:

Replacement of Flood-Damaged SC 34 Bridge over Hellers Creek

Type 1: Resurfacing, installation of fencing, signs, pavement markings, traffic signals, passenger shelters, railroad warning devices, construction of bicycle/ped lanes, installation of rumble strips, landscaping)

Type 2: Off-system bridge replacement, intersection improvements that involve turn lanes and/or realignment of roads no greater than 300' in length)

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

Project Type: 2

Comments

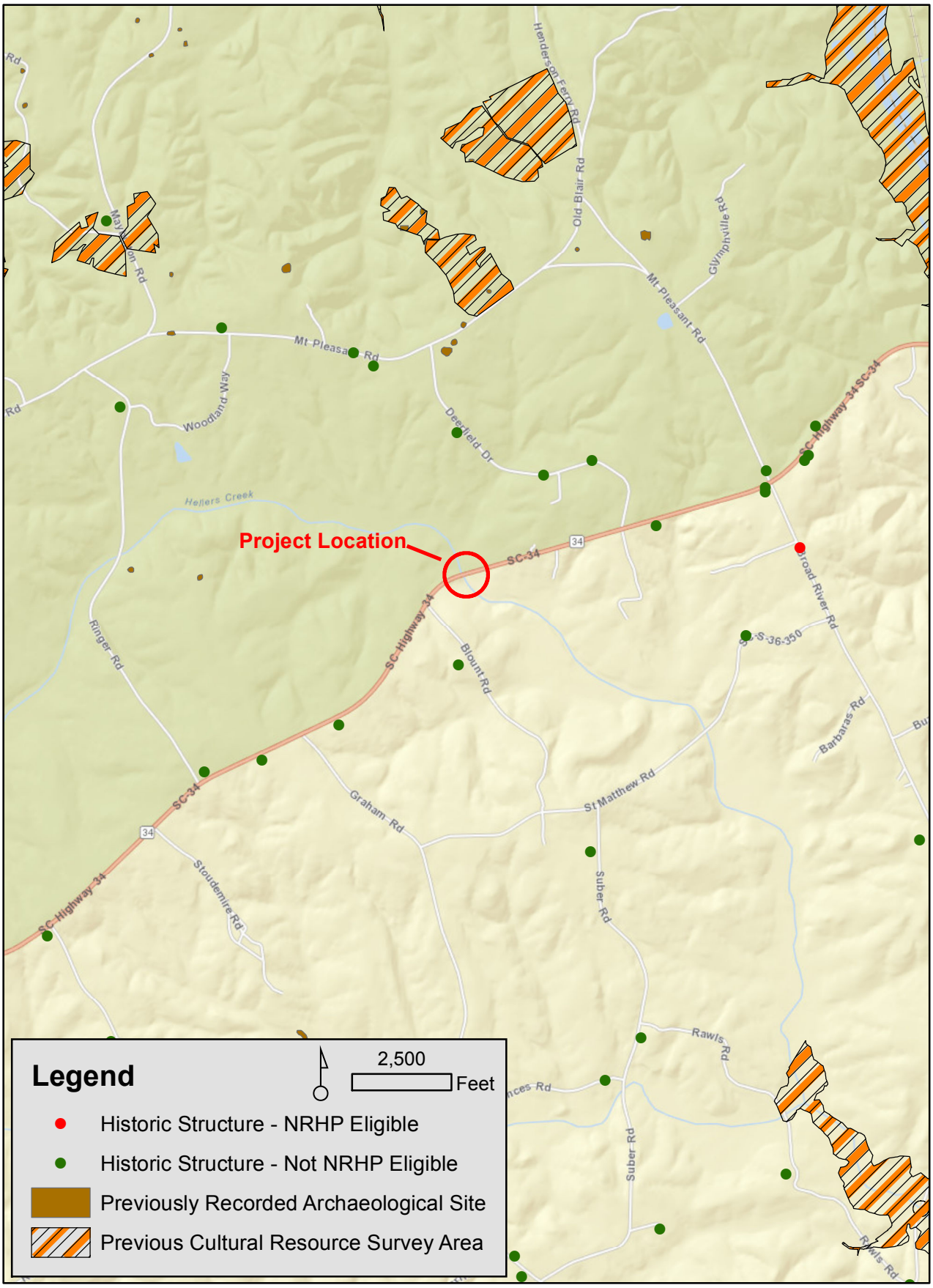
This project involves the replacement of the bridge carrying SC 34 over Hellers Creek. The replacement bridge will be constructed on the north side of the current bridge. New Right of Way will be required. The survey universe for cultural resources was established as the area up to 100 feet to the north of the current roadway for a distance of 2000 feet to the east and 2200 feet to the west of the current bridge. The width of the study area decreases at its east and west ends. GIS review indicated that no previously recorded cultural resources are present in the study area. An archaeological field survey was conducted on 10-29-15. The survey consisted of a pedestrian reconnaissance of the entire study area augmented by the excavation of 16 shovel test pits. The majority of the study area was found to have been previously impacted by utility lines, roadside ditches, and similar modern disturbances, or to be too low lying or steeply sloping to be the likely locus of in-situ cultural resources. No artifacts or archaeological features were noted during the pedestrian reconnaissance, and all of the shovel tests were negative. No additional cultural resources investigations are recommended for this project. No historic properties affected.

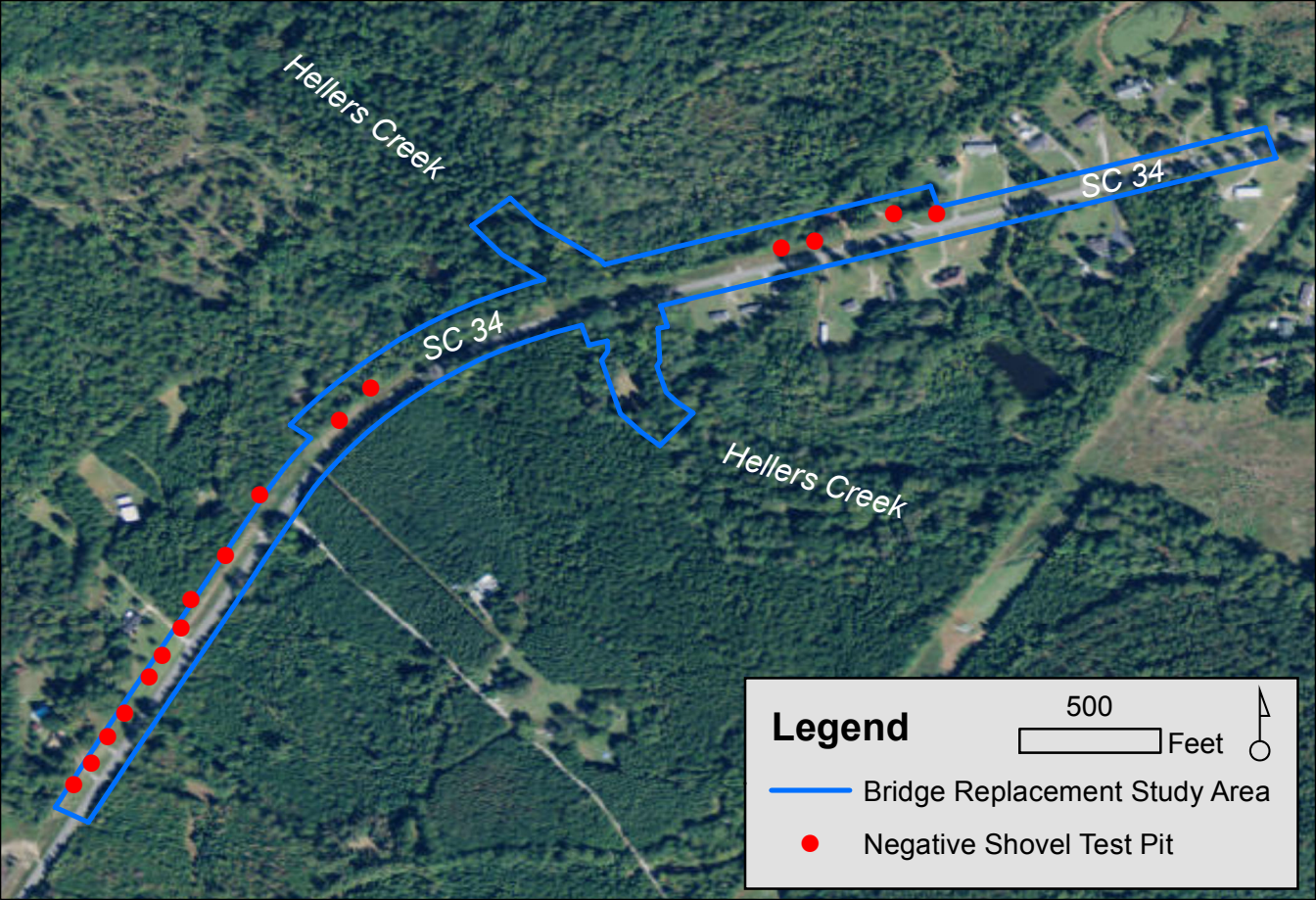
Effect Determination: No Historic Properties Affected

*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, 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: William Jurgelski Review Date: 10/29/2015


Project Location
Legend
2,500
Feet
Historic Structure - NRHP Eligible
Historic Structure - Not NRHP Eligible
Previously Recorded Archaeological Site
Previous Cultural Resource Survey Area
SC-34
SC Highway 34
Mt Pleasant Rd
Old Blair Rd
Woodland Way
Deerfield Dr
Hellers Creek
Ringer Rd
Blount Rd
Graham Rd
St Matthew Rd
Suber Rd
Rawls Rd
Barbaras Rd
Broad River Rd
Stoudemire Rd
Glymphville Rd
Henderson Ferry Rd
S-S-36-350


Hellers Creek
SC 34
SC 34
Hellers Creek
Legend
500
Feet
Bridge Replacement Study Area
Negative Shovel Test Pit

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

COUNTY: Newberry DATE: 11/10/2015

ROAD #: SC-34 STREAM CROSSING: Hellers Creek

Purpose & Need for the Project:

Lateral displacement of the bridge.

I. FEMA Acknowledgement

Is this project located in a regulated FEMA Floodway? [X] Yes [ ] No

Panel Number: 45071C0150C Effective Date: 09/16/2011 (See Attached)

II. FEMA Floodmap Investigation

FEMA Flood Profile Sheet Number 150 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: This crossing is within Zone A without a detailed study. A No Impact will not be required.

[ ] Preliminary assessmnet 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 ☑ No File No. _____ Sheet No. _____ (See Attached)

b. Road Plans ☑ Yes ☐ No File No. FAP187 re Sheet No. 22 (See Attached)

B. Historical Highwater Data

a. USGS Gage ☐ Yes ☐ No Gage No. _____ Results: _____

b. SCDOT/USGS Documented Highwater Elevations
☑ Yes ☐ No Results: Upstream of bridge face 311.3'

c. Existing Plans ☑ Yes ☐ No See Above

V. Field Review

A. Existing Bridge

Length: 88 ft. Width: 27.8 ft. Max. span Length: 22 ft.

Alignment: ☑ Tangent ☐ Curved

Bridge Skewed: ☐ Yes ☑ No Angle: _____

End Abutment Type: spill-through

Riprap on End Fills: ☑ Yes ☐ No Condition: _____

Superstructure Type: _____
Substructure Type: _____

Utilities Present: ☑ Yes ☐ No
Describe: Newberry Electric

Debris Accumulation on Bridge: Percent Blocked Horizontally: 50 %
Percent Blocked Vertically: 15 %

Hydraulic Problems: ☐ Yes ☐ No
Describe: Lateral displacement.

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: _____ ft.

c. Distance from Low Steel to Normal Water Elev.: _____ ft.

d. Distance from F.G. to High Water Elevation: _____ ft.

e. Distance from Low Steel to High Water Elev.: _____ ft.

f. Channel Banks Stable: ☐ Yes ☐ No

Describe:

g. Soil Type: _____

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.

C. Existing Roadway Geometry

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

☐ Yes ☑ No

Describe:

Yes but a temporary bridge would have to be put in place.

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: _____ ft. Width: 27.8 ft. Elevation: Hold Existi ft.

Span Arangement: _____

Notes: Minimum span length of 60 feet over the channel.

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

Performed By: Maria Ott

Title: DB Engineer

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations (BFEs) shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was State Plane South Carolina FIPS 3900. The **horizontal datum** was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by Newberry County, South Carolina.

This map **reflects more detailed and up-to-date stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a **Listing of Communities table containing National Flood Insurance Program dates for** each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Information eXchange** at 1-877-FEMA MAP (1-877-336-2627) for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Information eXchange may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov/.

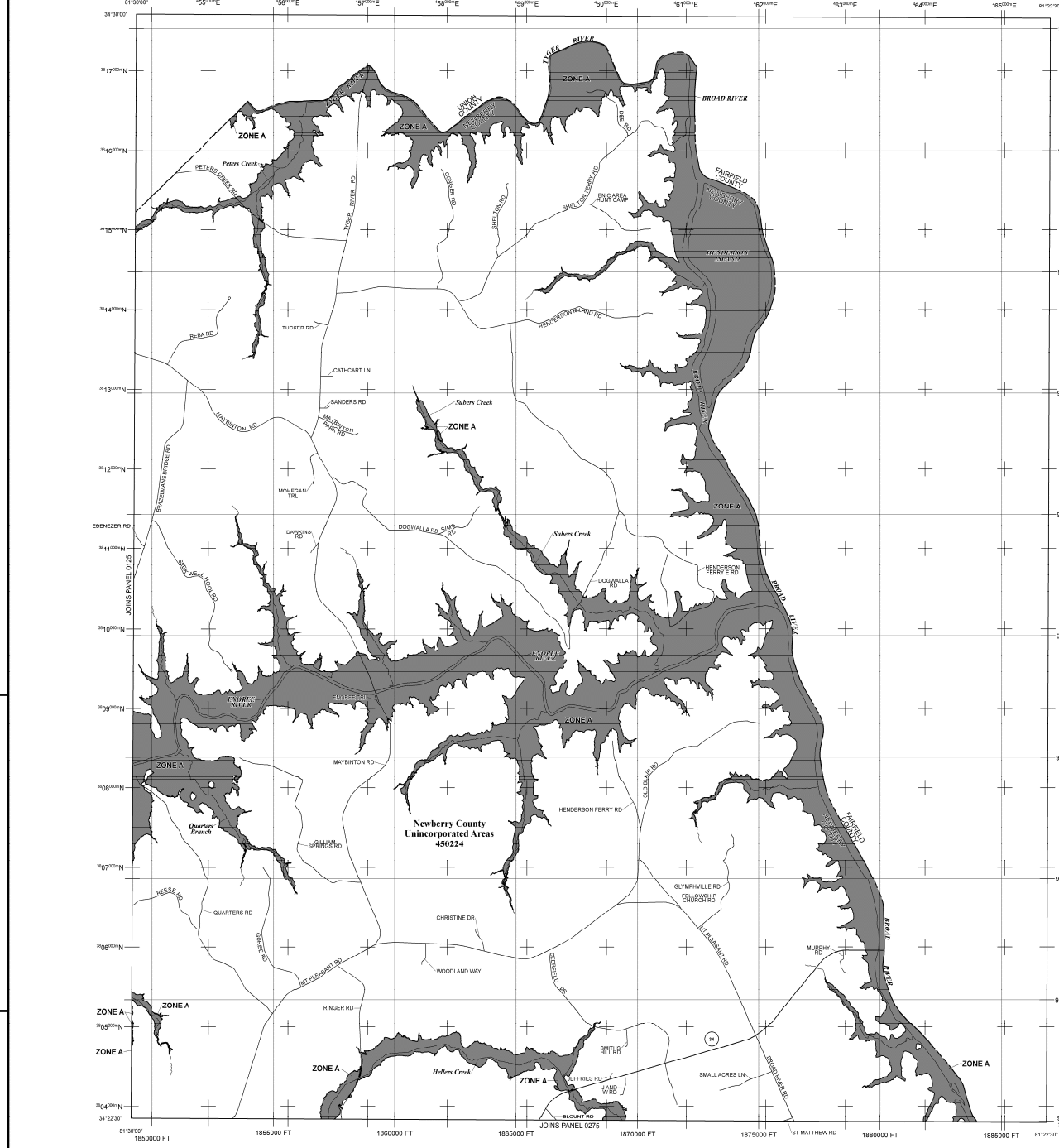
If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip/.

The **"profile base lines"** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", **in some cases, may deviate significantly** from the channel centerline or appear outside the SFHA.

DNR

This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of South Carolina and the Federal Emergency Management Agency (FEMA). The State of South Carolina has implemented a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of South Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

http://www.dnr.state.sc.us/



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities
- 513 (EL 987) Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A–A Cross section line
- 23–23 Transect line
- 97°07'30", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) HARN, Western Hemisphere
- 4275000mE 1000-meter Universal Transverse Mercator grid ticks, zone 17
- 6000000 FT 5000-foot grid values: South Carolina State Plane coordinate system (1927ZONE – 3900), Lambert projection
- DX5510 Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
SEPTEMBER 16, 2011

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1,000 0 1,000 2,000 3,000 4,000 FEET
500 0 500 1,000 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0150C

FIRM

FLOOD INSURANCE RATE MAP

NEWBERRY COUNTY, SOUTH CAROLINA AND INCORPORATED AREAS

PANEL 150 OF 485

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NEWBERRY COUNTY	450224	0150	C

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
45071C0150C

EFFECTIVE DATE
SEPTEMBER 16, 2011

Federal Emergency Management Agency

Robbins, Heather M.

From: Frierson, Ed W
Sent: Tuesday, October 27, 2015 10:16 AM
To: Robbins, Heather M.
Subject: RE: T&E and Cultural Resource Reviews

Heather,
S-101 in Fairfield – The only listed species seen in the area is a Bald Eagle nest over 5 miles away so no problem there. It appears that there is potential wood stork habitat but if we are just replacing on same location no impact would be expected.

SC 34 in Newberry - The only listed species seen in the area is a bald eagle nest over 4 miles away so no problem there. No habitat for any other species except the CH is there. I notice that the north side of the bridge and roadway is all Sumter National Forest property, so you may want to coordinate with them in some way.
Do you want me to write up a report or is this email all you need?

Edward W. Frierson
SCDOT NEPA Coordinator/Biologist
803-737-1861

From: Robbins, Heather M.
Sent: Monday, October 26, 2015 2:43 PM
To: Frierson, Ed W
Subject: RE: T&E and Cultural Resource Reviews

Thanks for the heads-up on the CH. We are already looking at this project for mussels. What did you find from the GIS review for the other T&E species?

Heather M. Robbins, AICP SCDOT NEPA Division Manager
W 803.737.1399 M 803.422.8771

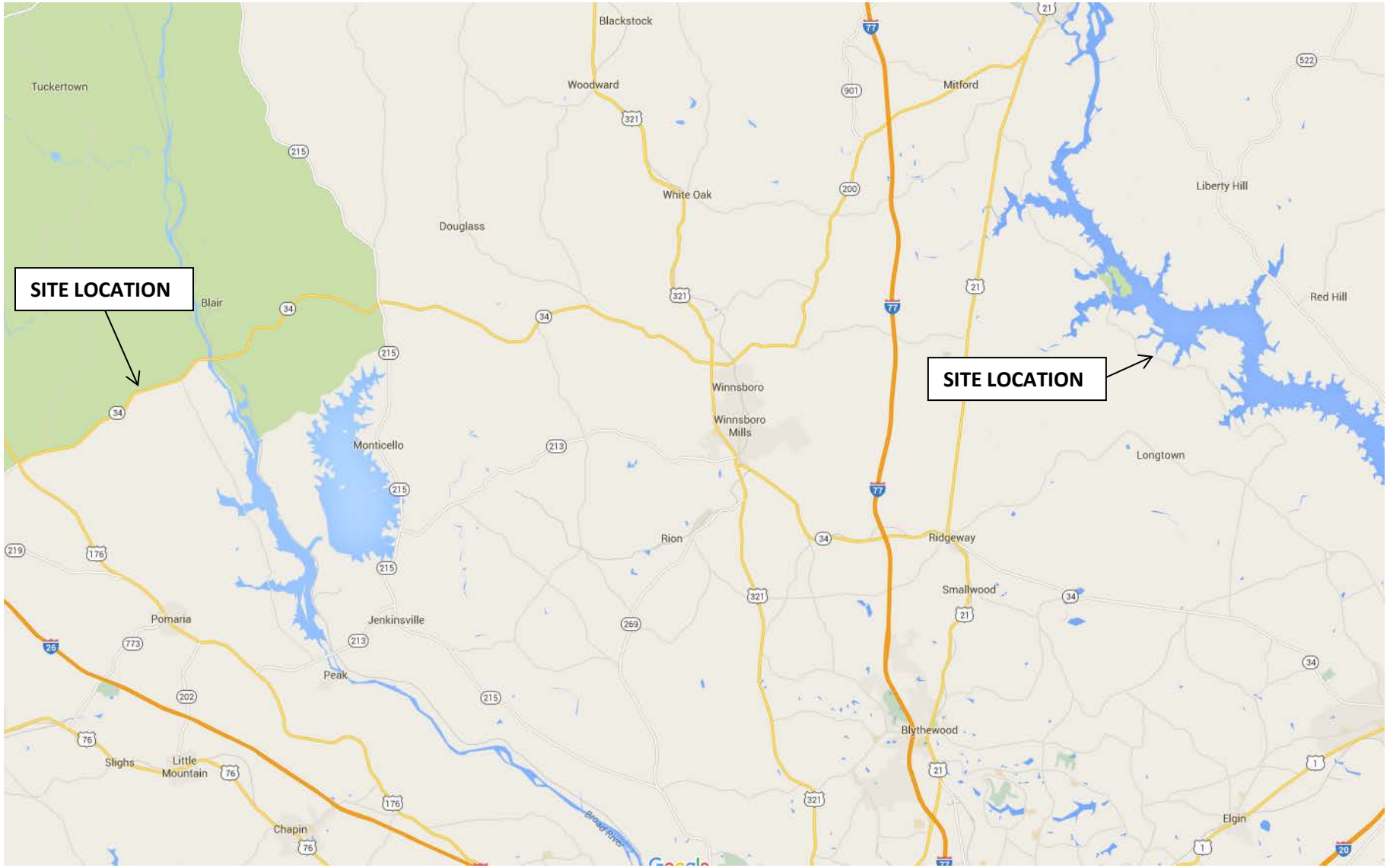
From: Frierson, Ed W
Sent: Monday, October 26, 2015 2:39 PM
To: Robbins, Heather M.
Subject: RE: T&E and Cultural Resource Reviews

Heather,
Both of these projects have the heelsplitter listed for them, how are we handling that? Since S-101 appears to be part of the lake, it is probably not considered habitat. SC 34 was looked at by Jeff West a few years ago. I don't think he found anything. So that study is probably still valid. I just wanted to touch base to see how we are handling the heelsplitter on these flood projects.

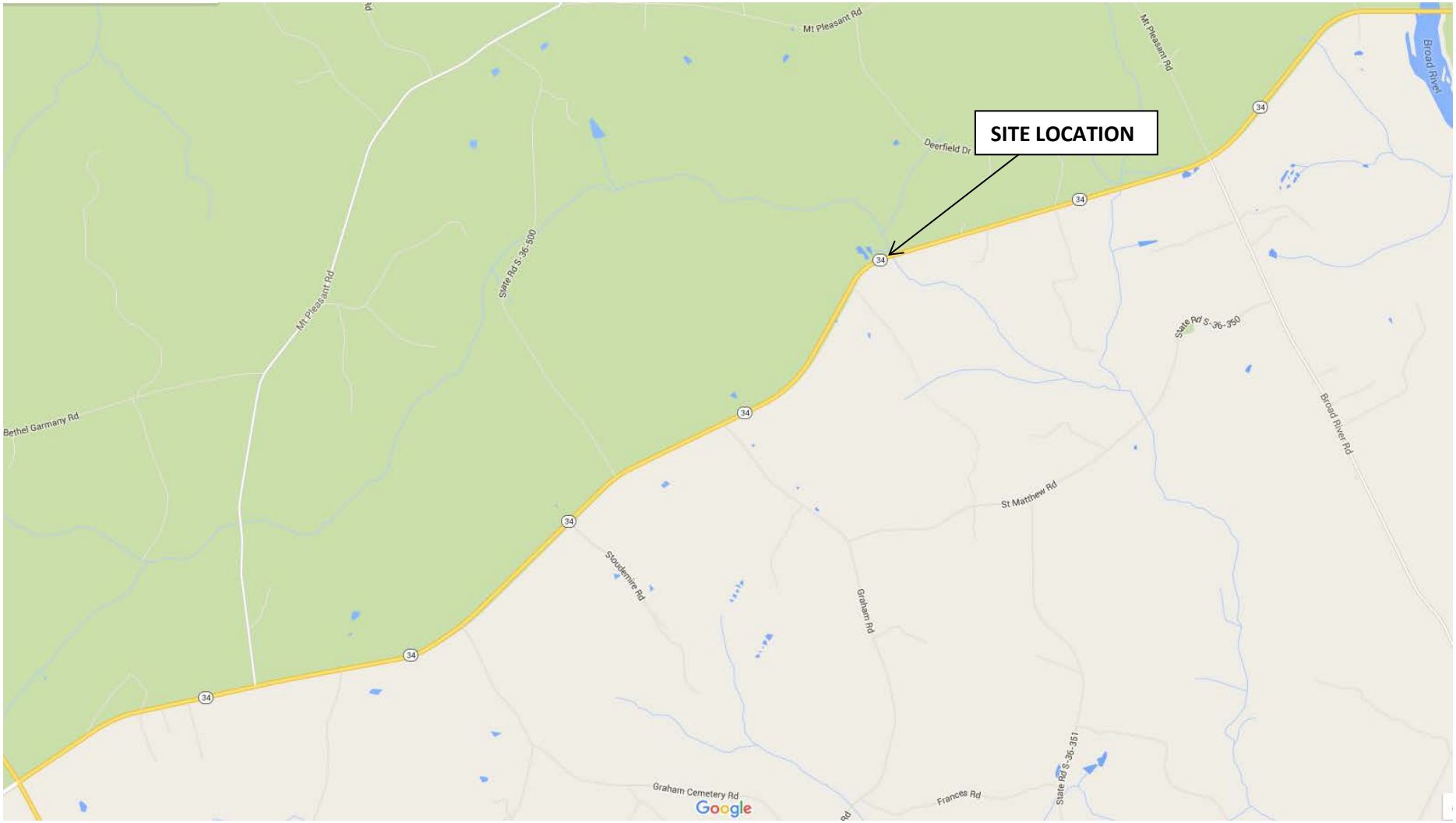
Edward W. Frierson
SCDOT NEPA Coordinator/Biologist
803-737-1861

From: Robbins, Heather M.
Sent: Friday, October 23, 2015 4:04 PM
To: Jurgelski, Bill M.; Frierson, Ed W

Emergency Bridge Package 3 (Newberry & Fairfield Counties)



SC 34 over Hellers Creek, Newberry County (34.3783, -81.4403)



D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

11/10/2015

Watershed and Water Quality Information

Genaral Information

Applicant Name:

Permit Type: MS4

Latitude: 34.3782

Longitude: -81.4400

MS4 Designation: Not in designated area

Monitoring Station: B-047

Within Coastal Critical Area: NO

Water Classification (Provisional): FW

Waterbody Name: HELLERS CREEK

Entered Waterbody Name:

Parameter Descriptions

NH3N	Ammonia
CR	Chromium
CU	Copper
HG	Mercury
NI	Nickel
PB	Lead
ZN	Zinc
DO	Dissolved Oxygen
PH	pH

FC	Fecal Coliform
FCB	Fecal Coliform (Shellfish)
BIO	Macroinvertebrates (Bio)
TP	(Lakes) Phosphorus
TN	(Lakes) Nitrogen
CHLA	(Lakes) Chlorophyll a
ENTERO	(Beach) Enterococcus
HGF	Mercury (Fish)
PCB	PCB (Fish)

Impaired Status (downstream sites)

Station	NH3N	CR	CU	HG	NI	PB	ZN	DO	PH	TURBIDITY	ECOLI	FCB	BIO	TP	TN	CHLA	ENTERO	HGF	PCB
B-047	F	F	F	F	F	X	F	F	F	F	T	A	X	X	X	X	X	X	X
B-151	A	A	A	A	A	X	A	A	A	A	A	A	N	X	X	X	X	X	X

F = Standards Fully Supported
A = Assessed at Upstream Station
T = Within TMDL Approved Watershed
N = Standards Not Supported
X = Parameter Not Assessed at Station

Parameters to be addressed (those not supporting standards)

ECOLI

BIO

Fish Consumption Advisory

TMDL Information - TMDL Parameters to be addressed

In TMDL Watershed: Yes

TMDL Site: B-047

TMDL Report No: 028-05

TMDL Parameter: Fecal

TMDL Document Link: http://www.scdhec.gov/HomeAndEnvironment/Docs/tmdl_lwrbrd_fc.pdf