

North Carolina Department of Transportation

NEPA/SEPA Consultation Form

TIP Project No.	B-5694
WBS Element	45648.1.1
Federal Aid Project No.	NA

A. Project Description, Location, and Purpose:

The proposed project will replace Bridge No. 51 on NC 11 over White Oak Canal in Bladen County. Bridge no. 51 will be replaced on the existing alignment. The replacement structure will have a minimum clear roadway width of 32 feet. The bridge will include two 12-foot lanes and 4-foot shoulders on each side. The approach roadway will extend approximately 650 feet to the east and 500 feet to the west from the ends of the proposed bridge. The approach roadway will consist of two 12-foot lanes with 8-foot shoulders with 2-foot paved shoulders (11-feet with guardrail). The existing right-of-way is 60 feet, and proposed right-of-way will be 165 feet wide, permanent drainage easement (PDE) and temporary construction easement (TCE) will be required. Traffic will be detoured on-site to the north during the construction period due to high traffic volumes for this major collector. The purpose is to replace a bridge nearing the end of its useful life. The bridge was built in 1952 and is considered structurally deficient due to a superstructure condition appraisal of 4 out of 9 according to Federal Highway Administration standards.

B. Consultation Phase: (Check one)

- ☐ Right-of-Way
- ☒ Construction
- ☐ Other: Identify the trigger – (e.g., design change, change in impacts)

C. NEPA/SEPA Class of Action Initially Approved as: (Check one)

☒ SEPA MCDC 6/11/2019

Additional Notes: None

D. Changes in Proposed Action & Environmental Consequences:

There have been no substantial changes to the proposed project or impacts since the original approval. A survey for mussel species was performed June 16, 2022. Due to poor habitat quality, the project May Affect, but is Not Likely to Adversely Affect the Atlantic Pigtoe. The project meets the Programmatic Biological Opinion for Bridge and Culvert Replacements/Repairs/Rehabilitations in Eastern North Carolina, NCDOT Divisions 1-8 and no further coordination is required.

Although the project has not changed since the minimum criteria determination, the area of potential effects (APE) identified for archaeology at that time did not capture a previous change in design. The APE has been updated to reflect this change, and an updated determination that no survey is required is attached.

E. Conclusion:

The above SEPA documentation has been reevaluated as required by NC General Statute Chapter 113A Article 1. It has been determined that the current proposed action is essentially the same as the original proposed action. Proposed changes, if any, are noted in Section D. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

F. Coordination

NCDOT personnel have discussed the current project parameters with qualified NCDOT representatives. The NCDOT Project Manager, Tierre Peterson, P.E., hereby verifies the involvement of the following staff and the incorporation of their technical input:

KCI Design Engineer:	Dewayne L. Sykes, PE	6/20/22
Environmental Specialist:	Gordon Cashin	6/13/2022
FHWA (if applicable):	N/A	Date
Other:	Name	Date

G. Consultation Approval for NCDOT Project B-5694

Prepared By:

7/5/2022

Date

DocuSigned by:

Dewayne Sykes

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Dewayne L. Sykes, PE, Project Manager
KCI

Prepared For:

7/5/2022

Date

DocuSigned by:

Jacquelyn Bowles

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Jacquelyn Bowles, PE
NCDOT, Structure Management Unit

Reviewed By:

7/7/2022

Date

DocuSigned by:

Collin Mellor

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Collin Mellor, Eastern Team Lead
NCDOT Environmental Policy Unit



Approved

In adherence with 23 CFR 771 (NEPA) or NC General Statute Chapter 113A Article 1 (SEPA), NCDOT approves this Consultation.

or

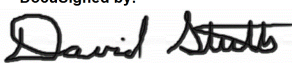


Certified

NCDOT staff certifies if FHWA signature was previously required or where changes have resulted in FHWA signature being required.

7/7/2022

Date

DocuSigned by:

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For Kristy Alford, PE – Project Engineer – Field Operations
NCDOT, Structure Management Unit

FHWA Approved: FHWA signature required for Type I(B) CE, Type II(B) CE, Type III CE, FONSI or ROD.

Date

N/A
John F. Sullivan, III, PE, Division Administrator
Federal Highway Administration

H. Project Commitments (as of June 27, 2022)

**Bladen County
Bridge N. 51 on NC 11 over Lyon Creek
WBS No.45648.1.1
TIP No. B-5694**

Hydraulics Unit

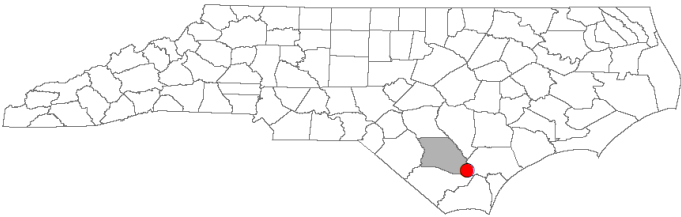
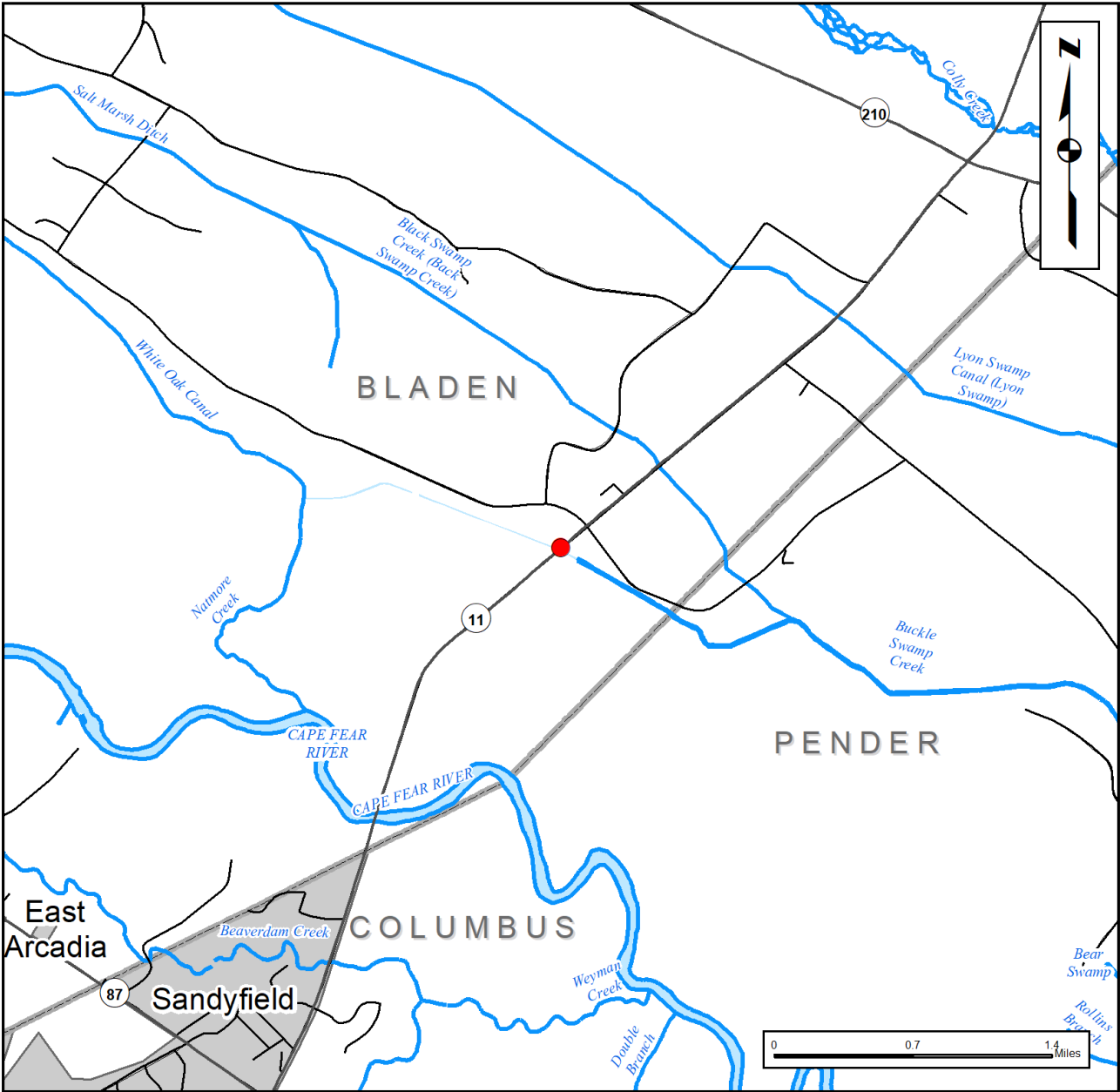
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP_ to determine the status of the project with regard to the applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR). *Subsequent investigations determined that B-5694 does not require an MOA as it was not a FEMA studied stream. It was within the Cape Fear floodplain; however, the canal itself did not have a study.*


Contracts Unit

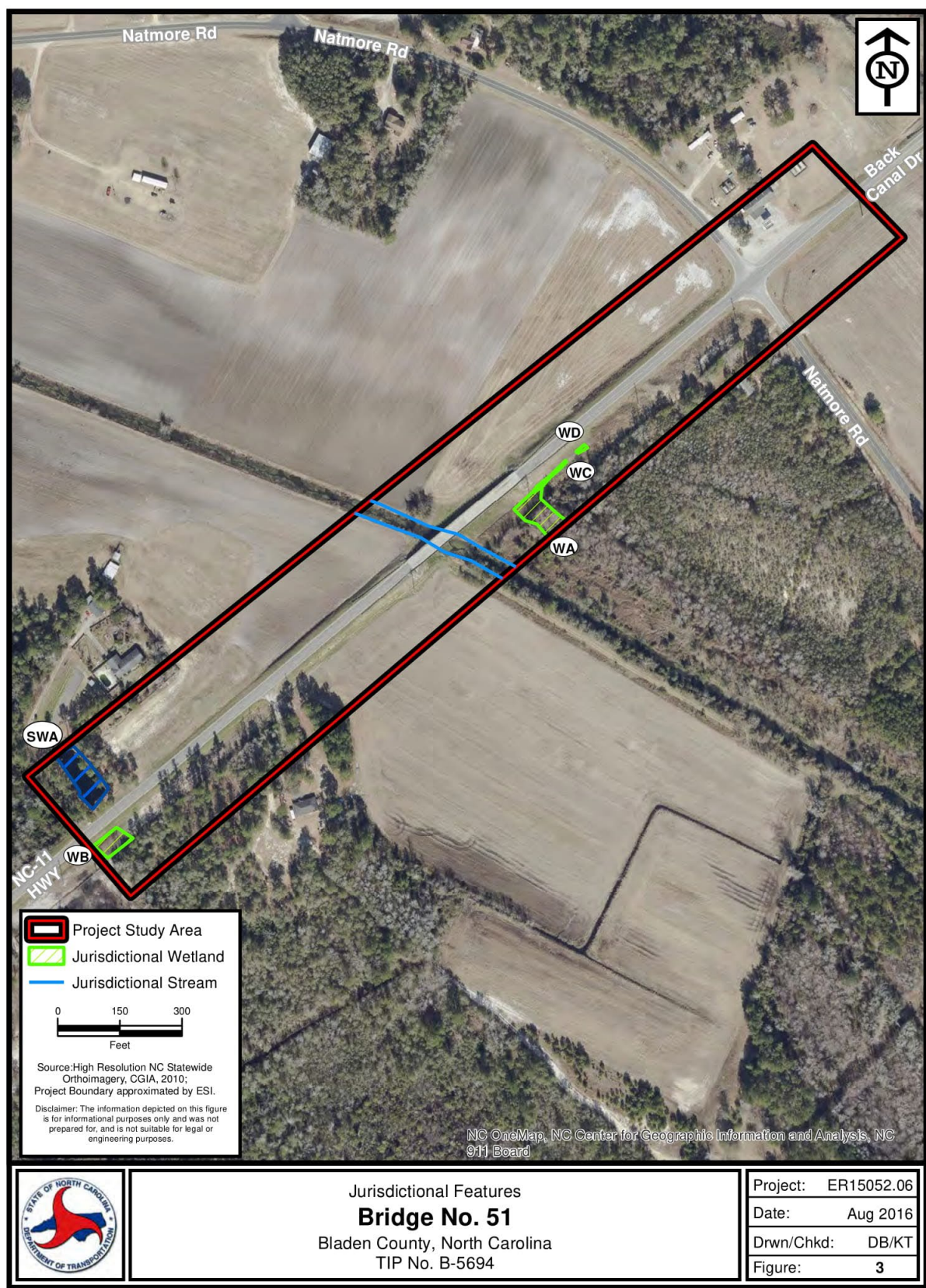
According to the Bladen County Emergency Services director, the County EMS usually has one ambulance covering the east Arcadia and Kelly area 24 hours. If construction will occur during summer months, traffic will increase due to traveling from the beaches and Jacksonville area. The County EMS director also mentioned that any detour could delay response times for emergency services and cause moderate impacts on EMS services. Due to the possible disruption of access and EMS response delays, it is recommended that NCDOT coordination with the County EMS to minimize temporary disruptions in access and EMS response delays in the project study area.

COMMITMENTS FROM PERMITTING

No special commitments were made during permitting.



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT</p>
<p>BLADEN COUNTY REPLACE BRIDGE NO. 51 ON NC 11 OVER A CANAL</p>	
<p>VICINITY MAP</p>	



Project Tracking No.:

16-01-0034

**NO ARCHAEOLOGICAL SURVEY REQUIRED FORM**

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

**PROJECT INFORMATION**Project No: **B-5694**County: **Bladen**WBS No: **45648.1.1**Document: **M C C**

F.A. No:

Funding: ☒ State ☐ FederalFederal Permit Required? ☒ Yes ☐ No Permit Type: **usace**

Project Description: *** Note, this is a revised recommendation and form based on information available in December 2018, and with updated mapping from June 2022. ***

NCDOT proposes to replace Bridge No. 0051 on NC 11 over a canal (White Oak Canal) in southeastern Bladen County near the Kelly community close to the Pender County line. This is a state funded project, however, a federal USACE permit is required. Therefore, Section 106 of the National Historic Preservation Act applies for this federal undertaking.

The original recommendation for a survey, dated 2/21/2017, was based on a very large, generalized archaeological Area of Potential Effects that was nearly half a mile long. The both endpoints in that APE were well onto higher ground with more attractive landforms and soils. That form included a recommendation to revisit the review after alternatives were developed to determine if the project limits would be reduced to a smaller area of impacts and avoid higher probability locations. Please reference that document for additional information. Following the availability of preliminary plans in December 2018, a redefined, smaller archaeological APE was established based on anticipated design. The result was a fraction of the original APE and, based on the prevalence of mucky soils and other factors, the recommendation was changed to "no archaeological survey required" (12/27/2018).

This updated form addresses current, relatively minor shifts in the construction limits, including fill, easements, and ROW, which resulted in a need to expand the APE mapping. The revision is based on the latest, final designs. The proposed length of the final designs is about 1500 feet (0.28 miles). A temporary on site detour northwest of the bridge results in an APE width of about 240 feet which tapers back to NC 11 at either end. The combined expansion areas compared to the 2018 APE is about 1 acre, excepting existing ROW, extended across the project.

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

The bridge to be replaced is in a rural setting. USGS mapping (Kelly and Point Caswell) and aerial photography was studied (see Figures 1 and 2). The Google streetview tool was available at this location and used. Examination using the tool showed rutted agricultural lands in the APE, a stretch of low often wet soils near the bridge. The canal is a narrow drainage constructed in the twentieth century.

According to USGS mapping and GIS resources (data layer created by NCDOT archaeologist Paul J. Mohler), no cemetery is present at the APE or immediately nearby.

Historic maps were examined; details are available on the 2/17/2017 documentation. In summary, the roadway and the canal appear to be of mid twentieth century construction. The highway was renamed from NC 141 to NC 11 around 1980. The canal shifted in location and pattern still in the 1950s. No structures or industry was noted on historic maps in these presumably reclaimed swampy soils.

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New for this update is an examination of historic aerals. Imagery from 1951 shows the canal-drained, worked bottomland fields prior to the construction of the highway and bridge which came in 1952. There are no structures present nearby, though drainage ditches, canals and occasional soil roads are present. Two aerals, 1955 and 1956, show the new highway and bridge. 1981 and 1983 aerals show that residences have been added on top of the better terrain past the APE on either end.

Soil survey data was gathered and examined for the revised project area. Rather than having large impacts to more favorable, drained soils on either end of the original oversized APE from 2017, the 2018 and 2022 boundaries are confined to mainly swampy soils except where they rejoining existing ROW on either end. The generally poorly drained or regularly flooded soils encountered include Portsmouth mucky sandy loam (Pt), Pamlico muck (Pa), Wasda muck (Wh) and Croatan muck (Cr). Centenary sand (Ce), listed as "not prime farmland," is present on the southern end of the temporary detour. The expansion approaching SR 1539 on the northeastern limits crosses Leon sand (LeA), a poorly drained but not frequently flooded soil. These soils are not commonly expected as high probability to contain archaeological sites due to a general avoidance of lasting activities in wet areas that would create recognizable archaeological sites.

The Office of State Archaeology was visited to review archaeological mapping and to reference any known archaeological surveys and sites. This helps establish an archaeological context for comparison. The canal appears to have had an environmental review on record with the OSA (ER 97-7864) though does not appear to have been recommended for an archaeological survey. Since the original two forms were issued for this project, the newly available HPO/OSA data show they have more recently reviewed a fiber optic/broad band plans along NC 11 which overlaps the APE (ER 20-0420). Noted as inactive, OSA did not recommend an archaeological survey. No archaeological sites are recorded within the APE or nearby vicinity.

This project falls within a North Carolina County in which the following federally recognized tribe has expressed an interest: the Catawba Indian Nation. We recommend that this documentation is forwarded to tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.

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

The bridge replacement will be constructed roughly on the same location and alignment though a temporary onsite detour will be necessary. The new bridge will overlap the existing facility and therefore over previously disturbed soils while the temporary detour crosses less disturbed, plowed soils. The majority of the APE spans low, wet soils that are considered unfavorable for long term human activities or occupation. The road and canal are of modern construction with nothing mapped at this location earlier than the 1950s. There are no recorded archaeological sites or cemeteries within the APE. Two previous overlapping reviews by OSA did not result in recommendations for survey.

The context doesn't indicate a high probability for archaeological sites within the altered, drained APE. It is unlikely that significant, intact archaeological remains would be present and impacted by the bridge replacement project. For archaeological review, this federally permitted undertaking should be considered compliant with Section 106.

SUPPORT DOCUMENTATION

See attached: ☒ Map(s) ☐ Previous Survey Info ☐ Photos ☐ Correspondence
☐ Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED


 NCDOT ARCHAEOLOGIST

6/28/2022

Date

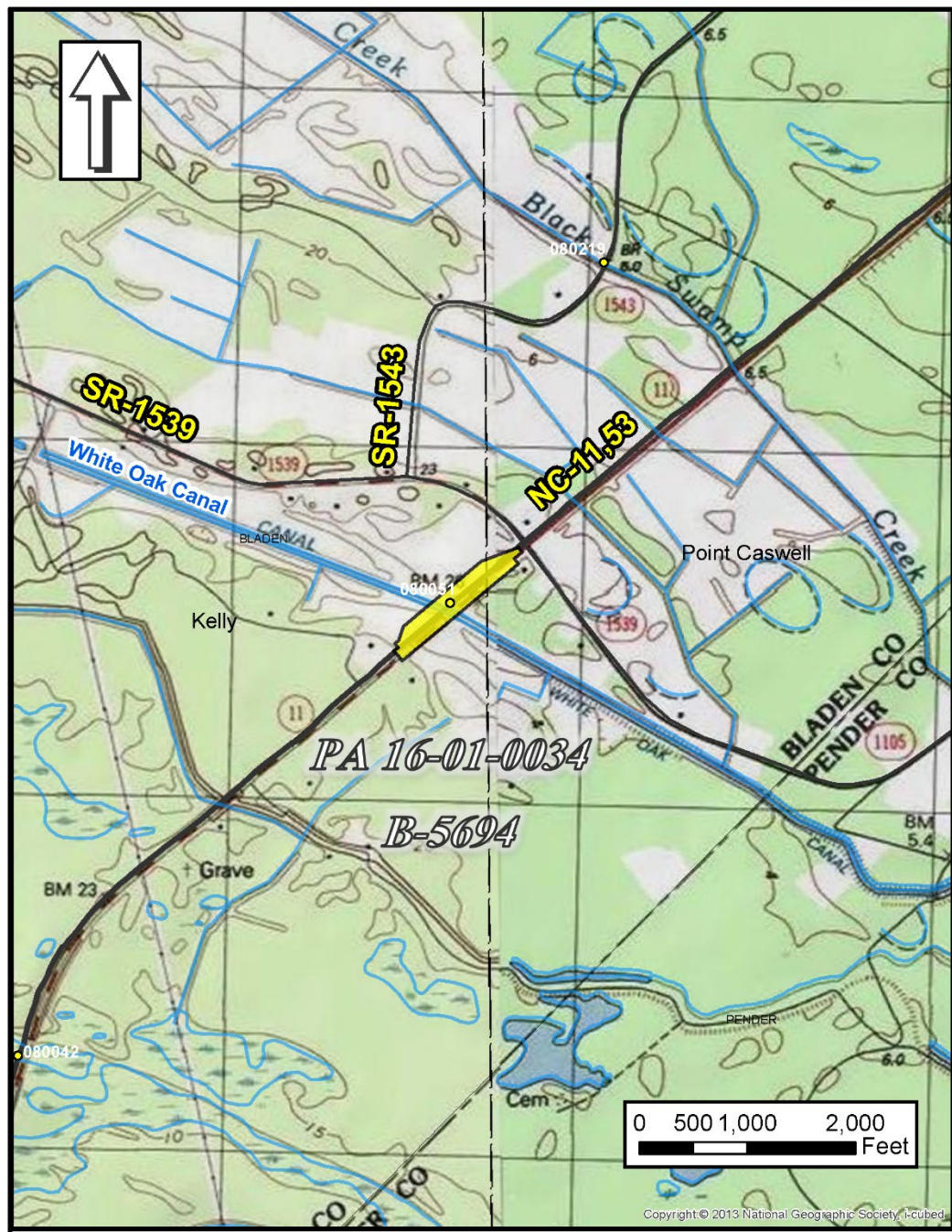


Figure 1. Vicinity of PA 16-01-0034, the replacement of Br. No. 0051 on White Oak Canal in Bladen County near Kelly, shown on USGS mapping (Kelly and Point Caswell). The updated APE is shown in yellow.

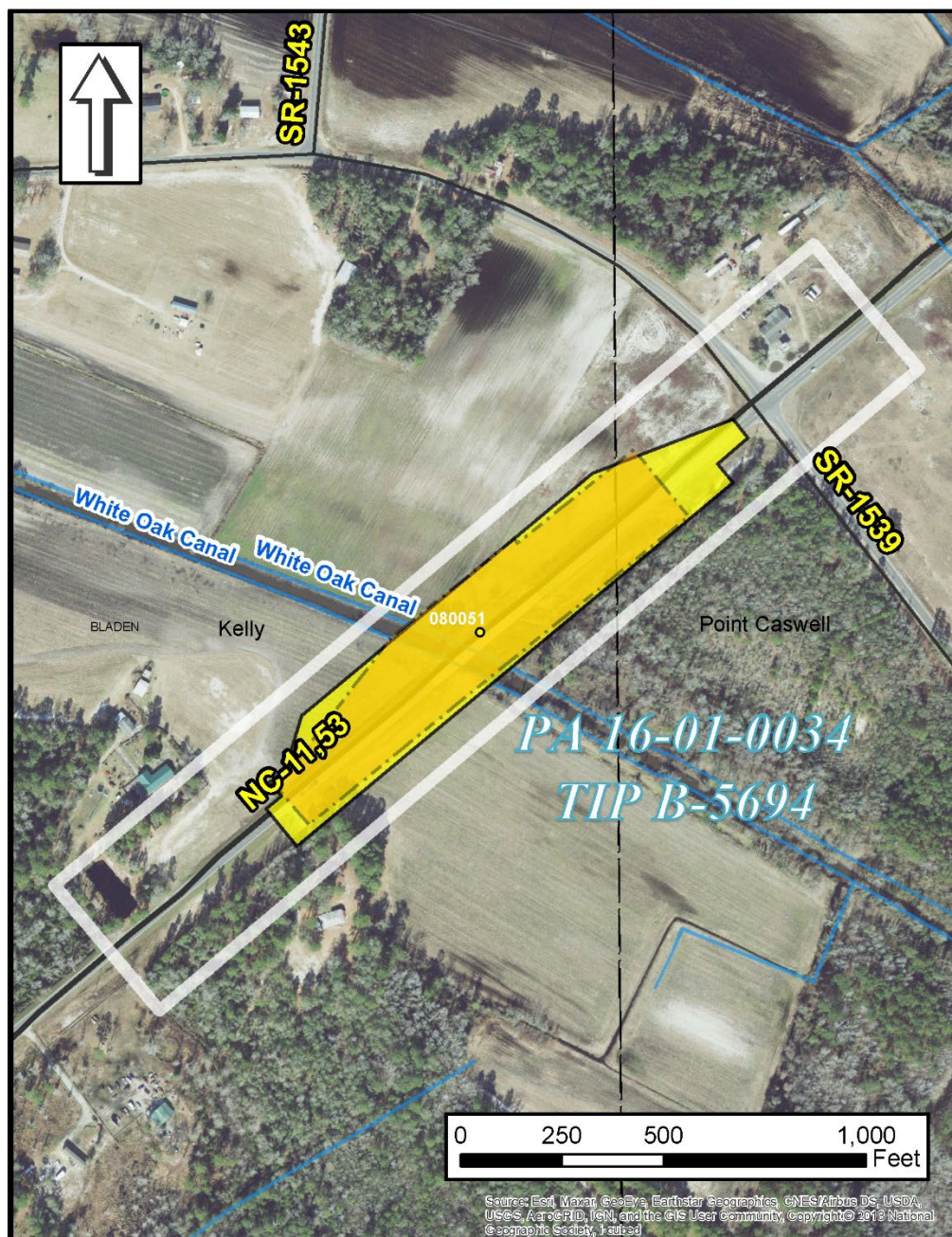


Figure 2. Aerial map of the proposed replacement of Br. No. 0051 on NC 11 over White Oak Canal (TIP B-5694, PA 16-01-0034). The approximate updated and current APE is shown in yellow overlaid with the 2018 APE shown in orange with a dashed outline. The original, larger study area and APE is shown as a white boundary.