SCDOT

U.S. Department of Transportation
Federal Highway Administration

APPENDIX G

PROTECTED SPECIES REPORTS

G-1: Biological Evaluation
G-2: State-Listed Species Memorandum

FIX
INTERSTATE
26

G-1: BIOLOGICAL EVALUATION

Biological Evaluation

Interstate 26 (I-26) Corridor Improvements
Project MM 145-172

Orangeburg and Dorchester Counties, South Carolina

FHWA Project Number: EAXX-XSC-1733319228

SCDOT Project ID: P041967 & P042454

IPaC Project Code: 2024-0138645

April
2025
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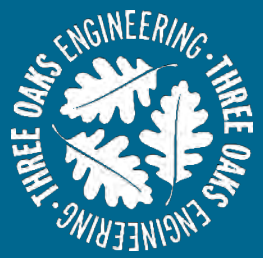

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LIST OF ACRONYMS

A

ACE	Agency Coordination Effort

B

BCM	Bureau of Coastal Management
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice

C

CFR	Code of Federal Regulations
CWA	Clean Water Act of 1972

E

EA	Environmental Assessment
ESA	Endangered Species Act of 1973, as amended

F

FHWA	Federal Highway Administration

I

IPaC	Information for Planning and Consultation

L

LOI	Letter of Intent

M

MBTA	Migratory Bird Treaty Act
MM	Mile Marker

N

NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetland Inventory

P

PSA	Project Study Area

R

RCE	Resident Construction Engineer

S

SCDES	South Carolina Department of Environmental Services
SCDNR	South Carolina Department of Natural Resources
SCDOT	South Carolina Department of Transportation
SWPPP	Stormwater Pollution Prevention Plan

U

USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service

W

WOTUS	Waters of the US

1 PROJECT OVERVIEW

1.1 Federal Nexus

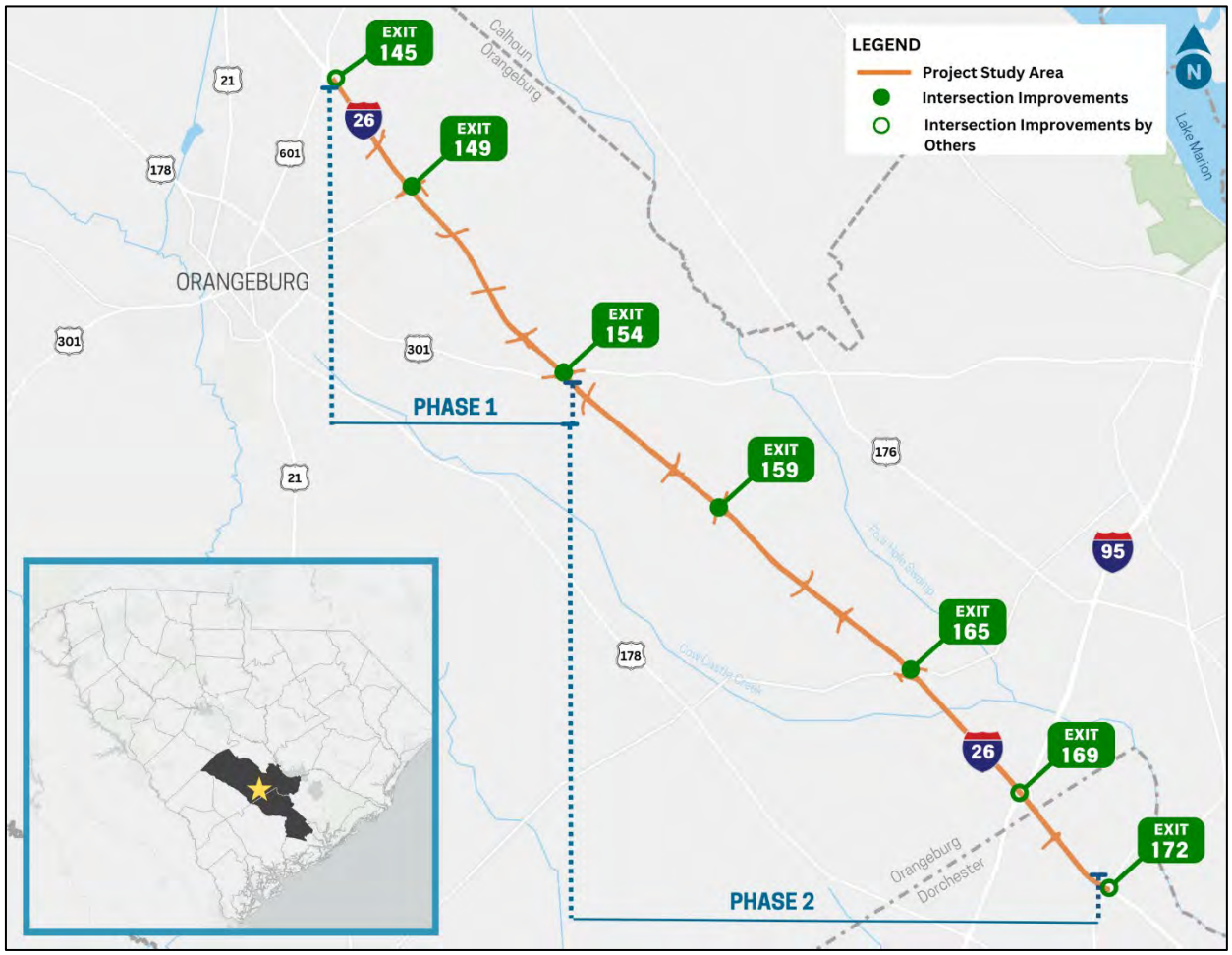
The Federal Highway Administration (FHWA) and the South Carolina Department of Transportation (SCDOT) are preparing an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) and corresponding regulations and guidelines of the FHWA as the lead federal agency (23 Code of Federal Regulations [CFR] 771 and 40 CFR 1500–1508A) to evaluate potential impacts of the proposed I-26 Corridor Improvements Project (project) to the human and natural environment. As required by the NEPA process, as well as Section 7 of the Endangered Species Act of 1973 (ESA) as amended, potential effects to federally protected species must be evaluated. The purpose of this Biological Evaluation (BE) is to identify the presence, or potential presence, of federally protected species known to occur in Orangeburg and Dorchester Counties, South Carolina, and to document potential project related effects to the protected species within or adjacent to the proposed project action area.

1.2 Project Description

SCDOT proposes corridor improvements to I-26 from mile marker (MM) 145 to MM 172 in Orangeburg and Dorchester Counties to improve capacity, mobility, and operations along the approximately 24-mile corridor of I-26 and to address operational deficiencies for interchanges within the study corridor. The project includes the following elements: adding a travel lane in each direction of I-26 toward the existing median, median clearing, barrier walls and cable guardrail installation, addressing all structures, and improving the interchanges and ramps at Exits 149, 154, 159, and 165. The interchange at I-26 and I-95 is excluded from this project and is being improved via a separate project (**Figures 1 and 2, Appendix A**).

The project will be implemented in two phases:

- Phase 1 (SCDOT Project ID P041967) includes I-26 from the eastern limits of the interchange with US 601 (Exit 145) through the interchange with US 301 (Exit 154).
- Phase 2 (SCDOT Project ID P042454) includes I-26 from the eastern limits of the interchange with US 301 (Exit 154) to the western limits of the interchange with US 15 (Exit 172).



1.3 Agency Coordination

An Agency Coordination Effort (ACE) was held on January 16, 2025, to introduce the project to environmental resource and regulatory agencies and obtain input on resources to be considered during project development. A Letter of Intent (LOI) to prepare an EA was distributed on March 21, 2025.

Coordination with the United States Fish and Wildlife Service (USFWS) to date has been informal, using the USFWS' Information for Planning and Consultation (IPaC) online tool to generate a list of protected species and to provide current project information. The South Carolina Department of Natural Resources (SCDNR) Heritage Trust species reviewer tool was also used to research known occurrence records of protected species and to evaluate the potential presence of protected species within the Project Study Area (PSA) and a two-mile buffer around the PSA. However, no formal coordination with SCDNR has taken place to date.

2 FEDERALLY PROPOSED AND LISTED SPECIES AND CRITICAL HABITAT

The PSA was uploaded to the USFWS IPaC (IPaC, Project Code 2024-0138645), and a list of protected species was generated on January 23, 2025.[1] A copy of the report is included in **Appendix B**. A literature review was completed for each of the listed species to determine their physical description and habitat requirements. The SCDNR and USFWS species descriptions and articles are referenced.

Threatened and endangered species under the jurisdiction of USFWS known to occur in Dorchester and Orangeburg Counties, and identified in the IPaC report for the PSA, are presented in **Table 1**. Although Section 7 of the ESA does not provide protections for species proposed for listing, they are included in Table 1 in the event their status changes prior to completion of the project. Bald eagles (*Haliaeetus leucocephalus*) are protected by the Bald and Golden Eagle Protection Act (BGEPA) and other listed migratory birds are offered protection under the Migratory Bird Treaty Act (MBTA).

Table 1. IPaC List of Federally Protected Species

Common Name	Scientific Name	Federal Status
Bird Species		
Bald eagle	*Haliaeetus leucocephalus*	BGEPA; MBTA
Red-cockaded woodpecker	*Dryobates borealis*	Threatened; MBTA
Insect Species		
Monarch butterfly	*Danaus Plexippus*	Proposed Threatened
Mammal Species		
Northern long-eared bat	*Myotis septentrionalis*	Endangered
Tricolored bat	*Perimyotis subflavus*	Proposed Endangered
Plant Species		
Canby's dropwort	*Oxypolis canbyi*	Endangered
Pondberry	*Lindera melissifolia*	Endangered

BGEPA = Bald and Golden Eagle Protection Act; MBTA = Migratory Bird Treaty Act

2.1 Protected Species Evaluation

The initial evaluation for the presence of listed species in the PSA and surrounding landscape focused on SCDNR and USFWS species descriptions and relevant literature. The determination of potential

[1] U.S. Fish and Wildlife Service. 2025. Information for Planning and Consultation (IPaC). https://ipac.ecosphere.fws.gov/ Accessed January 23, 2025.

occurrence in the PSA was determined through research of online databases such as SCDNR's SC Natural Heritage Species Reviewer[2] and USFWS Critical Habitat mapper.[3]

2.2 Species Descriptions

Descriptions and habitat requirements of all threatened and endangered species with suitable/marginally suitable habitat in the PSA or known occurrences within a two-mile buffer of the PSA are provided below.

2.2.1 Birds

Bald eagle (*Haliaeetus leucocephalus*) – BGEPA; MBTA

Photo by Gordon Murphy (Three Oaks)

Bald eagles are large raptors (6-foot wingspan) which are mottled brown and white until they reach maturity at four to five years old when they develop a brown body with a white head and tail. They primarily feed on fish, but also feed on waterfowl, and carrion. When prime food options are absent, they will also eat small terrestrial animals. They hunt by sight and are often seen soaring or perched high in a tree near water. Fresh, brackish, and marine habitats provide suitable foraging sites and include open water, marsh, and riverine types. Prime habitats are characterized by having shallow, slow moving water with abundant fish and waterfowl.[4] It nests in canopies of large trees usually within half of a mile from coastlines, rivers, and lakes. Nests are usually around 4 to 6 feet across and 3 feet deep. Nests are constructed out of large limbs and lined with soft plant fibers. They typically return to the same areas each year and reuse the same nest. They can be found nesting and rearing young in South Carolina from October until May.[5] Bald eagle nest locations are required to have a buffer zone ranging from 330 to 660 feet around nests, depending on site-specific conditions.[6]

Bald eagle populations declined due to a series of human-caused events such as habitat degradation and loss, shooting, and the use of chemical compounds such as pesticides.[7] Bald eagles were listed in the ESA in 1973 and were delisted in 2007 due to their strong recovery.[4] Bald eagles remain under federal

[2] South Carolina Department of Natural Resources. 2025. SC Natural Heritage Species Reviewer. https://natural-heritage-program-scdnr.hub.arcgis.com/. Accessed January 2025.

[3] U.S. Fish and Wildlife Service. 2025. Critical Habitat Mapper. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed: January 2025.

[4] South Carolina Department of Natural Resources, et al. 2015. South Carolina's State Wildlife Action Plan: Supplemental Volume: Species of Conservation Concern: Bald Eagle (*Haliaeetus leucocephalus*). South Carolina Department of Natural Resources. Columbia, SC.

[5] U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines.

[6] U.S. Fish and Wildlife Service. 2020. Bald Eagle Natural History and Sensitivity to Human Activity Information. https://www.fws.gov/Alaska-eagle-nesting. Accessed January 2025.

[7] U.S. Fish and Wildlife Service. 1989. Southeastern States Bald Eagle Recovery Plan. Atlanta, GA.

protection by the BGEPA which protects eagles from "take." Take is defined as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest or disturb."[8]

Red-cockaded woodpecker (*Dryobates borealis*) – Threatened; MBTA

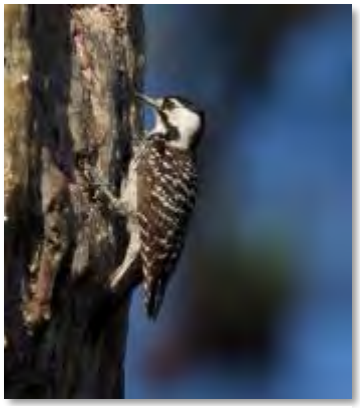


Photo by Gordon Murphy (Three Oaks)

Red-cockaded woodpeckers are small (7 inches long) cooperative breeding woodpeckers. They are black with white horizontal stripes on the body, a large white cheek patch on the face, and a black cap and nape. The males have a small patch of red feathers (the cockade) which can be found in the upper corner of the cheek patch but are only exposed when agitated. They only nest in cavities of living, mature (at least 70-year-old) pine trees. They prefer long-leaf pines (*Pinus palustris*) that have been maintained by a frequent (less than five year) fire regimen. Each breeding group maintains a cluster of active cavity trees within their foraging habitat. Maintained, in-use cavity trees are obvious due to sap drips around the cavity hole that turn white when hardened. They forage for insects in the bark of pine trees which are at least 30 years old and over 10 inches in diameter at breast height. Threats to red-cockaded woodpeckers are predominantly the suppression of fire which has resulted in the loss of adequate habitat.[9]

2.2.2 Insects

Monarch butterfly (*Danaus plexippus*) – Proposed Threatened

Photo by Gordon Murphy (Three Oaks)

Monarchs are large butterflies with orange wings that are bordered by a black band. The black band contains many white spots; however, the spots do not occur on the black veins of the wing. Their wingspan ranges from 3.5 to 4.0 inches. The caterpillars ingest and retain a toxic substance contained in the milkweed leaves which deters predators when they reach adulthood.[10] The typical habitat consists of open areas with sun exposure where they feed on nectar of flowering plants and lay eggs on their host plant.[10] 10The Monarch host plant consists of milkweed species (*Asclepias* ssp.). Small white eggs are deposited on the underside of milkweed leaves, and the growing caterpillars forage on the leaves. Some areas of the United States have resident populations while many Monarchs migrate as much as 1,864 miles to their overwintering locations.[10]

[8] U.S. Fish and Wildlife Service. 1940. Bald Eagles and Golden Eagle Protection Act.

[9] U.S. Fish and Wildlife Service. 2003. Recovery plan for the red-cockaded woodpecker (*Picoides borealis*): second revision. U.S. Fish and Wildlife Service, Atlanta, GA. 296 pp.

[10] Daniels, Jaret C. 2003. Butterflies of the Carolinas Field Guide. Adventure Publications, Inc., Cambridge, MN

2.2.3 Mammals

Northern long-eared bat (*Myotis septentrionalis*) - Endangered

The northern long-eared bat has a body length of 3 to 3.7 inches. Their fur is dark brown on their backs and lighter brown underneath. They have long ears with a pointed triangular tragus. They hibernate in caves where white-nose syndrome (WNS) is prevalent; however, in regions where no caves are present, they appear to hibernate in live trees and snags with a diameter at breast height of at least three inches. In summer, they roost in a wide variety of dead trees, under bark, and in caves. Northern long-eared bats also roost in human structures. These bats forage for insects in a wide variety of forest types. Since WNS is the primary cause of species decline, critical habitat is not designated under the ESA.[11]

Photo by Al Hicks (USFWS)

Tricolored Bat (*Perimyotis subflavus*) – Proposed Endangered

Tricolored bats are small bats with yellowish-brown fur. The term "tricolored" refers to the three distinct bands of color on the dorsal fur: dark at the base, yellowish-brown in the middle, and dark at the tips. Their mass ranges from about 0.158 to 0.282 ounces, have an average body length of 3 to 3.5 inches, with the females being larger than the males.[12]

Photo by Wade Biltoft (Three Oaks)

Tricolored bats are found throughout the eastern United States, extending north and east into Nova Scotia and Quebec and southwest to the eastern edge of Mexico and northern Honduras. They have been found state-wide throughout South Carolina.[12] Tricolored bats often roost in trees near areas of mixed agricultural use during the summer, although they will also roost in heavily forested areas without agricultural use.[13] In the winter, they are often found in places where the temperature stays constant, such as caves, rock crevices, and mines. This species will readily roost in bridges and culverts. They are known to forage near trees, as well as forest perimeters and along waterways.[12]

[11] U.S. Fish and Wildlife Service. 2024. Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines. U.S. Fish and Wildlife Service, Region 3, Bloomington, MN. 95 pp.

[12] U.S. Fish and Wildlife Service. 2025. Tricolored Bat. https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus. Accessed February 2025.

[13] Newman, B.A., S.C. Loeb, D.S. Jachowski. 2021. Winter roosting ecology of tricolored bats (*Perimyotis subflavus*) in trees and bridges. Journal of Mammalogy, Vol. 102, No. 5, October 2021, 1331-1341 pp.

2.2.4 Plants

Canby's dropwort (*Oxypolis canbyi*) – Endangered

Photo by Gordon Murphy (Three Oaks)

Canby's dropwort is a thin perennial herb that grows to be 2.6 to 3.9 feet tall. It has a round stem with stiff, slender, hollow leaves. The inflorescence is made of compound umbels of small, five-parted, white flowers. They bloom from mid-July to September. The seed is a small (0.16 to 0.24 inch) compressed elliptical schizocarp. They seed as early as October. Canby's dropwort suitable soil is sandy loam or acidic peat mucks underlain with clay. They grow best with little or no canopy cover in "natural ponds dominated by pond cypress, grass-sedge dominated Carolina bays, wet pine savannas, shallow pineland ponds and cypress-pine swamps or sloughs."[14] The largest threat to Canby's dropwort is loss or degradation of wetland habitats. This may have been worsened by herbicides, insect predation, and ineffective seed dispersal.[14]

Pondberry (*Lindera melissifolia*) – Endangered

Photo by Gordon Murphy (Three Oaks)

Pondberry is a small (1 to 6 feet) deciduous shrub with oval to oblong-shaped, thin, alternate leaves. The tips are more pointed, while the base is more rounded. The leaf margins are entire, and the leaf undersides are sparsely to densely covered in fine hairs. The leaf is strongly aromatic when crushed and resembles the smell of sassafras (*Sassafras albidum*). It blooms during February and March, before leaf emergence, with small yellow flowers. They reproduce either through seeds, which are a bright red, half-inch long drupe, or vegetatively through colonial expansion of numerous stems. In South Carolina, pondberry has been found in Carolina bays, limestone or lime-sink ponds, sand ponds, and lowland sand prairie depressions.[15]

2.2.5 Migratory Birds

Migratory birds listed in 50 CFR 10.13 of the Migratory Bird Treaty Act (MBTA) are protected from the "take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations." The USFWS migratory bird list contains 1,106 species.[16] All the bird species listed as endangered, threatened, or At-Risk-Species in Orangeburg and Dorchester counties by USFWS are also protected by the MBTA.

[14] U.S. Fish and Wildlife Service. 2022. *Oxypolis canbyi* (Canby's dropwort) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Southeast Region, South Carolina Ecological Services Field Office, Charleston, SC

[15] U.S. Fish and Wildlife Service. 2014. Pondberry (*Lindera melissifolia*) 5-Year Review: Summary and Evaluation. Jackson, MS.

[16] U.S. Fish and Wildlife Service. 2023. List of Birds protected by the Migratory Bird Treaty Act. Available at: https://www.fws.gov/media/list-birds-protected-migratory-bird-treaty-act-2023. Accessed August 2024.

3 ENVIRONMENTAL BASELINE

3.1 Project Study Area

The PSA (**Appendix A, Figure 2**) extends along I-26 from the eastern limits of the interchange with US 601 (Exit 145) to the western limits of the interchange with US 15 (Exit 172) and encompasses all areas of potential land disturbance. The PSA is approximately 1,800 acres in size and is being used to assess alternatives developed for the project. A two-mile buffer around the PSA boundary was used to develop the list of protected species to evaluate potential occurrences within and adjacent to the PSA.

The PSA is situated across three Level IV Ecoregions: Atlantic Southern Loam Plains (65l), Carolina Flatwoods (63h), and Mid-Atlantic Floodplains and Low Terraces (63n).

The Atlantic Southern Loam Plains (65l) ecoregion is defined by the US Environmental Protection Agency (EPA) as: "lower, flatter, more gently rolling, with finer textured soils than 65c [Sand Hills]. It is a major agricultural zone, with deep, well-drained soils, and more cropland than 65c or 63h [Carolina Flatwoods]. The sedimentary formations are younger than those of the Sand Hills (65c) and older and more dissected than the flatter terraces of the Carolina Flatwoods (63h). The flora is varied due to the variety of edaphic conditions, but is generally more mesic than found in 65c, and more xeric than in 63h. The region has a high concentration of Carolina bays... Carolina bays not drained for agriculture often contain rare or endangered plant and animal species."[17]

The EPA defines the Caroline Flatwoods (63h) ecoregion as "The nearly level coastal plain of the Carolina Flatwoods has less relief, wider upland surfaces, and larger areas of poorly drained soils than the adjacent, higher elevation ecoregion 65l [Atlantic Southern Loam Plains]. Covered by shallow coastal waters during the Pleistocene, the resultant terraces and shoreline-related landforms are typically covered by fine-loamy and coarse-loamy soils, with periodically high water tables. Other areas have clayey, sandy, or organic soils, contributing to the region's plant diversity. Carolina bays and pocosins are abundant in some areas. The region is a significant center of endemic biota, with more biological diversity and rare species compared to the adjacent 63e [Mid-Atlantic Flatwoods] to the north in North Carolina and Virginia. Pine flatwoods, pine savannas, freshwater marshes, pond pine woodlands, pocosins, and some sandhill communities were once common. Loblolly pine plantations are now widespread with an active forest industry. Artificial drainage for forestry and agriculture is common."[17]

"The Mid-Atlantic Floodplains and Low Terraces [63n] are mostly a continuation of the riverine ecoregion 65p [Southeastern Floodplains and Low Terraces], although a few floodplains mapped in this region originate within ecoregion 63 [Middle Atlantic Coastal Plain]. Large, sluggish rivers, deep-water swamps, and some oxbow lakes characterize 63n. The alluvial deposits of the floodplains and terraces tend to have abrupt textural changes. Brownwater floodplains originate in or cross the Piedmont (45) and the sediments contain more weatherable minerals than the blackwater floodplains that have their watersheds entirely within the coastal plain. Cypress-gum swamps are common, along with bottomland hardwoods of wetland oaks, green ash, red maple, and hickories."[17]

[17] Griffith, G., J. Omernik and J. Comstock. 2002. Ecoregions of South Carolina.

The PSA lies within the Edisto River Basin. Most of the PSA is within the Upper Four Hole Swamp watershed (Hydrologic Unit Code (HUC): 0305020501), while the southern end is within the Lower Four Hole Swamp watershed (HUC: 0305020503).

3.2 Biotic Communities

Biotic communities within the PSA were identified by combining remote sensing data such as recent aerial imagery from Earthstar Geographics obtained through ESRI's GIS database, digital elevation models for Dorchester and Orangeburg counties,[18] and USFWS National Wetland Inventory (NWI) mapping[19] along with field observations and data collected during the survey efforts and the delineation of waters of the United States (WOTUS), conducted between June 2024 and February 2025.

Identified biotic communities within the PSA include urban development, forested uplands, wetland, open water, and riverine habitat types. Much of the I-26 corridor is adjacent to undeveloped tracts except for areas around interchanges and overpass bridges where residential and commercially developed land is located. Wetland habitat types were classified using the Cowardin naming convention.[20] WOTUS delineated in the PSA are shown on **Figures 4a-4o in Appendix A**.

3.2.1 Upland Habitats

Urban Development

In the PSA, urban development includes residences, commercial buildings, and roadways. These areas typically have very little natural habitat since they are frequently maintained and landscaped. These areas typically do not provide a significant source of food or shelter for wildlife. The unpaved but maintained areas around the pavement and buildings are typically planted in native and exotic grasses, shrubs, and trees.

Forested Uplands

Forested communities occurring in the uplands include mixed pine/hardwood and oak/hickory. The pines within the PSA are primarily planted loblolly pine (*Pinus taeda*). The hardwoods include water oak (*Quercus nigra*), sweetgum (*Liquidambar stryraciflua*), tulip poplar (*Liriodendrum tulipifera*) red maple (*Acer rubrum*), and southern magnolia (*Magnolia grandiflora*). The understory includes horse-sugar (*Symplocos tinctoria*), devil's walking stick (*Aralia spinosa*), greenbrier (*Smilax rotundifolia*), Japanese honeysuckle (*Lonicera japonica*), and various grass species. Areas near roadways and other disturbed areas have denser understory vegetation when compared to forested areas further from disturbed areas.

The oak/hickory forests are sparse remnant woodlots dominated by white oak (*Quercus alba*), pignut hickory (*Carya glabra*), and mockernut hickory (*Carya tomentosa*). Understory includes sassafras

[18] South Carolina Department of Natural Resources. 2024. LiDAR Data Access. https://scdnr.maps.arcgis.com/. Accessed October 2024.

[19] U.S. Fish and Wildlife Service. 2024. National Wetland Inventory. https://www.fws.gov/wetlands/. Accessed October 2024.

[20] U.S. Fish and Wildlife Service. 1979. Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. Classification of wetlands and deepwater habitats of the United States. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

(*Sassafras albidum*), sourwood (*Oxydendrum arboreum*), flowering dogwood (*Cornus florida*), and Japanese honeysuckle.

3.2.2 Freshwater Habitats

Wetlands

Palustrine forested wetlands are wetlands with mature forest canopy and a regular flood regime.[20] Palustrine forested wetlands within the PSA are predominantly wet pine flatwoods with a mixed canopy of hardwoods and loblolly pines and are seasonally flooded. The forests appear to be secondary successional with intermediate species, likely due to past logging activities and their proximity to highways and development. Common hardwood species include sweetgum, red maple, water oak, and willow oak (*Quercus phellos*). Coniferous canopy species include loblolly pine with longleaf pine (*Pinus palustris*). The understory is moderately dense with young tree species and shrubs, most commonly wax myrtle (*Morella cerifera*), privet (*Ligustrum* spp.), fetterbush (*Lyonia lucida*), and inkberry (*Ilex glabra*). The presence of herbaceous species varies in density, with common species including wood oats (*Chasmanthium laxum*), netted chain fern (*Woodwardia areolata*), soft stem rush (*Juncus effusus*), and various sedges (*Carex* spp.). Seasonally flooded, palustrine forested wetlands are abundant in and around Four Hole Swamp and its tributaries.

Other palustrine forested wetlands within the PSA experience semi-permanent flooding, particularly those deep within Four Hole Swamp. These areas have similar species to those observed in seasonally flooded wetlands but have canopies that include virgin bald cypress (*Taxodium distichum*) and tupelo (*Nyssa aquatica*). Semipermanent flooded palustrine forested wetlands within the PSA have a more spacious understory than those that are seasonally flooded and are more successionally mature.

Palustrine emergent wetlands are wetlands dominated by perennial, herbaceous plants that are present for most of the year.[20] One palustrine emergent wetland within the PSA is a permanently flooded beaver dam impoundment. Common species found in this area include non-woody species such as cattail (*Typha* spp.), pickerel weed (*Pontederia cordata*), and plumegrass (*Saccharum brevibarbe*).

Open Water

Palustrine unconsolidated bottom ponds are ponded habitats that are permanently flooded, typically due to excavation or impounding.[20] Eleven excavated ponds were identified within the PSA: all of which are located between the central PSA and southeastern PSA. They appear to be manmade and formerly forested wetlands.

Riverine

Stream habitats within the PSA are riverine lower perennial,[20] which are streams with low flow velocity, well-defined floodplain areas, and sandy to silty substrate. Within the PSA, riverine habitats flow through the uplands and palustrine forested wetlands. They are typically non-vegetated or minimally vegetated. Streams increase in flow with increased precipitation. They often provide connection between wetlands and major waterbodies within the watershed.

3.3 Water Quality

The South Carolina Department of Environmental Services (SCDES) monitors the water quality of streams and open waters of South Carolina. SCDES develops a priority list of waterbodies that do not currently meet state water quality standards pursuant to Section 303(d) of the Clean Water Act (CWA) and 40 CFR § 130.7. It is commonly referred to as the 303(d) List of Impaired Waters. Cow Castle Creek is designated as a 303(d) Listed and Impaired Water where it intersects with the PSA, as well as extending northwest and southeast of the PSA, due to *Escherichia coli* bacteria. Cow Castle Creek is a tributary to Upper Four Hole Swamp, which is also 303(d) listed due to *Escherichia coli* bacteria.

According to SCDES, monitoring stations are used for "determining long-term water quality trends, assessing attainment of water quality standards, identifying locations in need of additional attention, and providing background data for planning and evaluating stream classifications and standards."[21] SCDES has a monitoring station (E-050) at the Wamer Road (S-170) crossing of Cow Castle Creek, upstream of the PSA.

4 PROJECT DETAILS

As noted in Section 1.2, the proposed project would including adding a travel lane in each direction of I-26 toward the existing median, median clearing, barrier walls and cable guardrail installation, addressing all structures, and improves the interchanges and ramps at Exits 149, 154, 159, and 165. The project is anticipated to be constructed in two phases, with construction on Phase 1 (MM 145 to MM 154) beginning in 2027 and construction on Phase 2 (MM 154 to MM 172) beginning in 2029.

4.1 Construction Activities

4.1.1 Site Preparation

SCDOT and/or the contractor would develop a Stormwater Pollution Prevention Plan (SWPPP) and obtain National Pollutant Discharge Elimination System (NPDES) permits from the SCDES before construction can commence. SCDOT would require the contractor to properly install the required erosion, turbidity, and sediment control devices prior to all other construction activities. The contractor would be required to install these measures around the perimeter of the active construction site, including any off-site staging areas. After the installation of erosion, turbidity and sediment control measures, the contractor would begin the project staging area preparation and general site preparation.

To prepare the general project area for construction and establish staging areas, the contractor may need to clear vegetation and remove stumps, roots, or debris. The contractor may also grade portions of the project area to establish a suitable work environment. Staging areas would be selected by the contractor to establish a construction site office and would also include materials, equipment, and fuel storage. Staging areas are expected to be predominantly located in uplands.

The contractor would be required to utilize SCDOT Best Management Practices (BMPs) for soil and erosion control during construction. The clearing, grading, or placement of fill in wetlands would require

[21] South Carolina Department of Environmental Services. 2024. SC Water Quality Information. https://gis.dhec.sc.gov/stormwater/ Accessed October 2024.

authorization from the United States Army Corps of Engineers (USACE), as well as from SCDES. The limits of any clearing, grading, or fill in wetlands would be delineated and shown on approved permitted plans by the USACE and SCDES. SCDOT and the contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands.

4.1.2 Borrow Pits and Disposal Areas

The contractor may use areas outside the Action Area for borrow pits or spoil areas. Waste and borrow areas would likely be required to dispose of and obtain materials for earthwork and are also subject to clearing and grubbing. If existing permitted borrow sites are not available, **the contractor would be required to follow SCDOT guidance in Engineering Directive Memorandum 30 (ED-30), Borrow Pit Location and Monitoring**[22] that requires proposed new borrow sites for projects located east of I-95 be screened for wetlands and cultural resources. The screening process includes coordination with the USACE and SCDES's Bureau of Coastal Management (BCM) and, once approved, the site is monitored during construction to ensure compliance with applicable environmental laws. **The contractor would be responsible for addressing the potential effects to federally listed threatened and endangered species for any new borrow or disposal sites.**

4.1.3 Roadway Construction

The addition of a third general purpose travel lane in each direction of I-26 would be completed into the existing median to the maximum extent possible. The median has been previously cleared of trees, so construction work would involve grading, installation of new drainage structures, median barrier, and paving. In the vicinity of US 301 and Four Holes Road, widening would occur to the outside of the existing travel lanes in order to avoid impacts to Brantley Cemetery located in the median.

Interchange modifications would be completed for Exit 149 (SC 33 Cameron Road), Exit 154 (US 301 Five Chop Road), Exit 159 (S-36 Homestead Road), and Exit 165 (SC 210 Vance Road). Exit 169 (I-95) is within the project limits but is being modified under a separate SCDOT contract. All proposed designs included in the widening of I-26 would accommodate the new Exit 169 configuration.

The placement of roadway fill material in wetlands would require authorization from the USACE and SCDES. The limits of any clearing, grading, or fill in WOTUS would be delineated and shown on approved permitted plans by the USACE and SCDES. SCDOT and the contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands. Roadway construction is not expected to result in the take of any protected species.

4.1.4 Bridges and Culverts and Construction Access

Where necessary to accommodate the widening of I-26, existing overpass structures outside of the interchanges would be replaced providing the required vertical clearance and meeting clear zone requirements. These overpass locations include the following roadways in Orangeburg County: S-29 (Belleville Road), S-65 (Gramling Road), S-470 (Old Elloree Road), S-196 (Big Buck Boulevard), S-1303 (Log Cabin Road), S-692 (Arista Road), and S-92 (Ebenezer Road). In addition, I-26 eastbound and westbound

[22] South Carolina Department of Transportation. 2011. Engineering Directive Memorandum 30 (ED-30), Borrow Pit Location and Monitoring. http://info2.scdot.org/ED/ED/ED-30.pdf. Accessed October 2024.

bridges over SC 33 and CSX Railroad would be replaced in Orangeburg County, and the following overpass in Dorchester County would be replaced: L-337 (Weathers Farm Road).

There is one set of dual bridges over water at Cow Castle Creek (approximately MM 167). These bridges would be replaced as part of the widening. In addition, there are several bridge-sized culverts:

- I-26 over Little Bull Creek – retain and extend
- I-26 over Gramling Creek – retain and extend
- I-26 over Middle Penn Creek – retain and extend
- S-65 (Gramling Road) over stream – replace with culvert or bridge
- I-26 over Mill Creek – under investigation
- I-26 (eastbound and westbound) over stream – under investigation

Temporary access for the construction of the bridge supports and superstructure would be required. Bridge construction access may be required throughout the life of the project, but **any method selected would be required to comply with all applicable permits and/or environmental commitments for the project.** Once the contractor has completed construction of bridge support structures, any temporary structures such as mats and temporary fills would be removed. **SCDOT and the contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands.**

The contractor would be required to utilize all appropriate SCDOT BMPs for soil and erosion control during construction to minimize the potential impacts and effects of turbidity.

4.2 Stormwater Runoff

The existing bridges over Cow Castle Creek currently utilize scuppers that discharge bridge deck runoff directly into the waterbody below. SCDOT does not propose to pre-treat post-construction stormwater runoff from the replacement bridge decks prior to discharge into waters below.

5 EFFECTS ANALYSIS

The following section contains discussion about potential effects to specific species. The USFWS defines “take” as: to harass, harm, pursue, hunt, shoot, wound, kill, trap capture, or collect or attempt to engage in any such conduct [ESA §3(19)]. Harm is further defined by USFWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is defined by USFWS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering [50 CFR §17.3].

5.1 Birds

5.1.1 Bald eagle (*Haliaeetus leucocephalus*) - BGEPA

Open waters throughout the PSA provide foraging habitat for bald eagles. Nesting habitat was not found within or adjacent to the PSA; no eagles or nests were observed during the field surveys. According to

SCDNR Natural Heritage Species Reviewer, no known occurrences or nest sites for bald eagles have been documented within a two-mile buffer of the PSA.

Effect Determination: Effect conclusions for the bald eagle are not required under the ESA. However, the project is not anticipated to result in the mortality of any bald eagles or limit the ability of the species to adequately breed, feed, or shelter.

5.1.2 Red-cockaded woodpecker (*Dryobates borealis*) – Threatened

According to the SC Natural Heritage Species Reviewer, there are two known occurrences of red-cockaded woodpecker within the two-mile buffer of the PSA dating to 2023 and 1993. Residential and commercial development, coupled with a lack of burning in pine dominated areas of the PSA, have resulted in degradation of potential red-cockaded woodpecker habitat.

Effect Determination: No suitable nesting or foraging habitat was observed during the field surveys, as there is a complete lack of fire-maintained pine forests with minimal understory. Therefore, the proposed project would have **no effect** on the red-cockaded woodpecker.

5.1.3 Migratory Birds

Bridges within the PSA were inspected for the presence of migratory birds, or their nests. Barn swallow (*Hirundo rustica*) and cliff swallow (*Petrochelidon pyrrhonota*) nests were observed sporadically on various bridge structures within the PSA. It is assumed migratory birds may be present within the PSA.

Effect Determination: An effect determination is not required for migratory birds under ESA. However, by implementing SCDOT's standard migratory bird measures presented in section 6 of this BE, it is anticipated that the proposed project would not result in the unauthorized mortality of any migratory birds.

5.2 Insects

5.2.1 Monarch Butterfly (*Danaus Plexippus*) – Proposed Threatened

According to SC Natural Heritage Species Reviewer, there is one known occurrence of monarch butterfly within the two-mile buffer of the PSA dating to 2021. No instances of any milkweed species were observed during the field surveys.

Effect Determination: Suitable foraging habitat is present within the PSA; however, no milkweed species nor individual monarch butterflies were observed during field surveys. It is anticipated that the proposed project will have **no effect** on the monarch butterfly.

5.3 Mammals

5.3.1 Northern long-eared bat (*Myotis septentrionalis*) – Endangered

According to SC Natural Heritage Species Reviewer, there are no known occurrences of northern long-eared bats within the PSA or its two-mile buffer. Suitable roosting habitats such as bridges, culverts, pipes, and trees are present within the PSA. Bridge and culvert inspections were completed between February

3 and 5, 2025, with a total of 23 bats observed in three culverts. None of the bats observed during field surveys were northern long-eared bats.

Effect Determination: Suitable habitat is present in the PSA. There is no known roosting activity occurring on roadway structures within the PSA. The proposed project **may affect,** but is **not likely to adversely affect** the northern long-eared bat. The USFWS recommends the avoidance of activities that may disturb suitable roosting habitat during winter torpor (December 15th-February 15th) and during summer occupancy (April 1st – July 15th).

5.3.2 Tricolored bat (*Perimyotis subflavus*) – Proposed Endangered

According to the SC Natural Heritage Species Reviewer, there are multiple known occurrences of the tricolored bat within the PSA dating from 2021 to 2023. Suitable roosting structures observed within the PSA during the field surveys consist of live and dead leaf clusters in trees, Spanish moss (*Tillandsia usneoides*), cavities and openings in trees, bridges, and culverts. Bridge and culvert inspections were completed between February 3 and 5, 2025, with a total of 23 bats observed in three culverts. Of the 23 bats observed, 18 were determined by Three Oaks biologists to be tricolored bats. Of the three culverts where bats were observed, tricolored bats were observed within two: a triple box culvert over Mill Branch (approximately MM 160 in Orangeburg County) contained 17 tricolored bats; and a box culvert over an unnamed tributary west of I-95 (approximately MM 167.5 in Orangeburg County) contained one tricolored bat.

Effect Determination: Because suitable habitat is present in the PSA and tricolored bats were observed roosting within two culverts, the proposed project **may affect** the tricolored bat. The USFWS recommends the avoidance of activities that may disturb suitable roosting habitat during winter torpor (December 15th-February 15th) and during summer occupancy (April 1st – July 15th). SCDOT may initiate consultation with USFWS for the tricolored bat if and when the species is officially listed as Endangered.

5.4 Plants

5.4.1 Canby's dropwort (*Oxypolis canbyi*) - Endangered

According to the SC Natural Heritage Species Reviewer, there are no known occurrences of Canby's dropwort within the two-mile buffer of the PSA. There are no Carolina Bays or similarly open, grassy wetland areas with a regular disturbance regime within the PSA. No individuals or suitable habitats were observed within the PSA.

Effect Determination: It is anticipated that the proposed project will have **no effect** on Canby's dropwort due to lack of suitable habitat.

5.4.2 Pondberry (*Lindera melissifolia*) - Endangered

According to the SC Natural Heritage Species Reviewer, there are no known occurrences of pondberry within the two-mile buffer of the PSA. No suitable pondberry habitat was observed within the PSA.

Effect Determination: It is anticipated that the proposed project will have **no effect** on pondberry due to lack of suitable habitat.

6 CONSERVATION MEASURES

As coordination with resource and regulatory agencies progresses, Environmental Commitments will be developed and become part of the project record. SCDOT and the contractor will be required to implement SCDOT Standard Environmental Commitments, and any project specific commitments developed through agency coordination and the permitting process.

Table 2 summarizes the effect minimization commitments listed in the previous sections of the document. These commitments are recommended to either avoid or minimize potential effects to federally protected species. For species that may be affected by the project, these measures are intended to prevent the potential to adversely affect the species. **The contractor, SCDOT, and FHWA would be required to stay in compliance with all approved environmental conditions established in the EA as well as any special conditions established in the required permit authorizations.**

Table 2. Recommended Conservation and Effect Minimization Environmental Commitments

Recommended Environmental Commitments
▪ SCDOT and/or the contractor would develop a SWPPP and obtain NPDES permits before construction can commence.
▪ The contractor would be required to utilize SCDOT Best Management Practices for soil and erosion control during construction.
▪ The limits of any clearing, grading, or fill in wetlands would be delineated and shown on approved permitted plans. SCDOT and the contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands.
▪ The contractor would be required to adhere to all Special Conditions associated with all federal, state, and local permits required to construct the project. The expected permits and other authorizations required prior to beginning construction include an Individual USACE Section 404 permit, SCDES Section 401 Water Quality Certification, SCDES navigable waters permit, and SCDES BCM coastal zone consistency review (for portions of the project in Dorchester County).
▪ If existing permitted borrow sites are not available, the contractor would be required to follow SCDOT guidance in Engineering Directive Memorandum 30 (ED-30), Borrow Pit Location and Monitoring. The contractor would be responsible for addressing the potential effects to federally listed threatened and endangered species for any new borrow or disposal sites.
▪ Northern long-eared bats and tricolored bats are presumed to be present within the PSA due to abundant foraging and roosting habitat, as well as observed presence of tricolored bats in culverts in the PSA. The USFWS has recently recommended an avoidance of construction activities that disturb suitable foraging and roosting habitat, primarily tree clearing activities, during winter torpor (December 15th – February 15th) and summer occupancy (April 1st – July 15th) in the year-round active range. The USFWS may provide additional avoidance and minimization recommendations at the permitting stage of the project.

Recommended Environmental Commitments
▪ Temporary lighting during construction should be directed away from suitable habitat during the active season of northern long-eared bat and other bat species.
▪ To the extent practicable, tree removal would not exceed what is required for project construction (alignments and temporary work areas).
▪ SCDOT will comply with the Migratory Bird Treaty Act of 1918 regarding the avoidance of taking of individual migratory birds and the destruction of their active nests. At least four (4) weeks 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.

7 CONCLUSIONS

After completing a literature search, a field survey, and a habitat assessment, with the inclusion of the proposed effect minimization efforts, SCDOT and FHWA have determined the proposed project would have **no effect** on the red-cockaded woodpecker, monarch butterfly, Canby's dropwort, and pondberry.

The project may affect species that are known to occur or that may occur within the project action area or habitat which supports foraging, breeding, or shelter for those species. The project **may affect** the tricolored bat due to individuals of the species observed within two culverts in the corridor and the presence of suitable habitat throughout the PSA. The project **may affect,** but is **not likely to adversely affect** the northern long-eared bat due to no observed individuals or known records within two miles of the PSA, the abundance of available habitat within or adjacent to the action area, and the ability for the species to leave or avoid the project area during construction.

This report is being submitted to USFWS for review and concurrence of the determinations made above. **Table 3** provides a summary of effect determinations for federally protected species under the jurisdiction of the USFWS in Dorchester and Orangeburg Counties.

Table 3. Effect Determinations of Federally Protected Species

Species	Federal Status	Habitat Present	Effect Determination
Bird Species			
Bald eagle *Haliaeetus leucocephalus*	BGEPA; MBTA	Yes (foraging)	N/A
Red-cockaded woodpecker *Dryobates borealis*	Threatened; MBTA	No	No Effect
Insect Species			
Monarch butterfly* *Danaus Plexippus*	Proposed Threatened	Yes	No Effect
Mammal Species			
Northern long-eared bat *Myotis septentrionalis*	Endangered	Yes	Not Likely to Adversely Affect
Tricolored bat** *Perimyotis subflavus*	Proposed Endangered	Yes	May Affect
Plant Species			
Canby's dropwort *Oxypolis canbyi*	Endangered	No	No Effect
Pondberry *Lindera melissifolia*	Endangered	No	No Effect

** Proposed to be listed as Threatened in December 2024*
***Proposed to be listed as Endangered in September 2023*

APPENDIX A

Project Study Area Maps and Figures

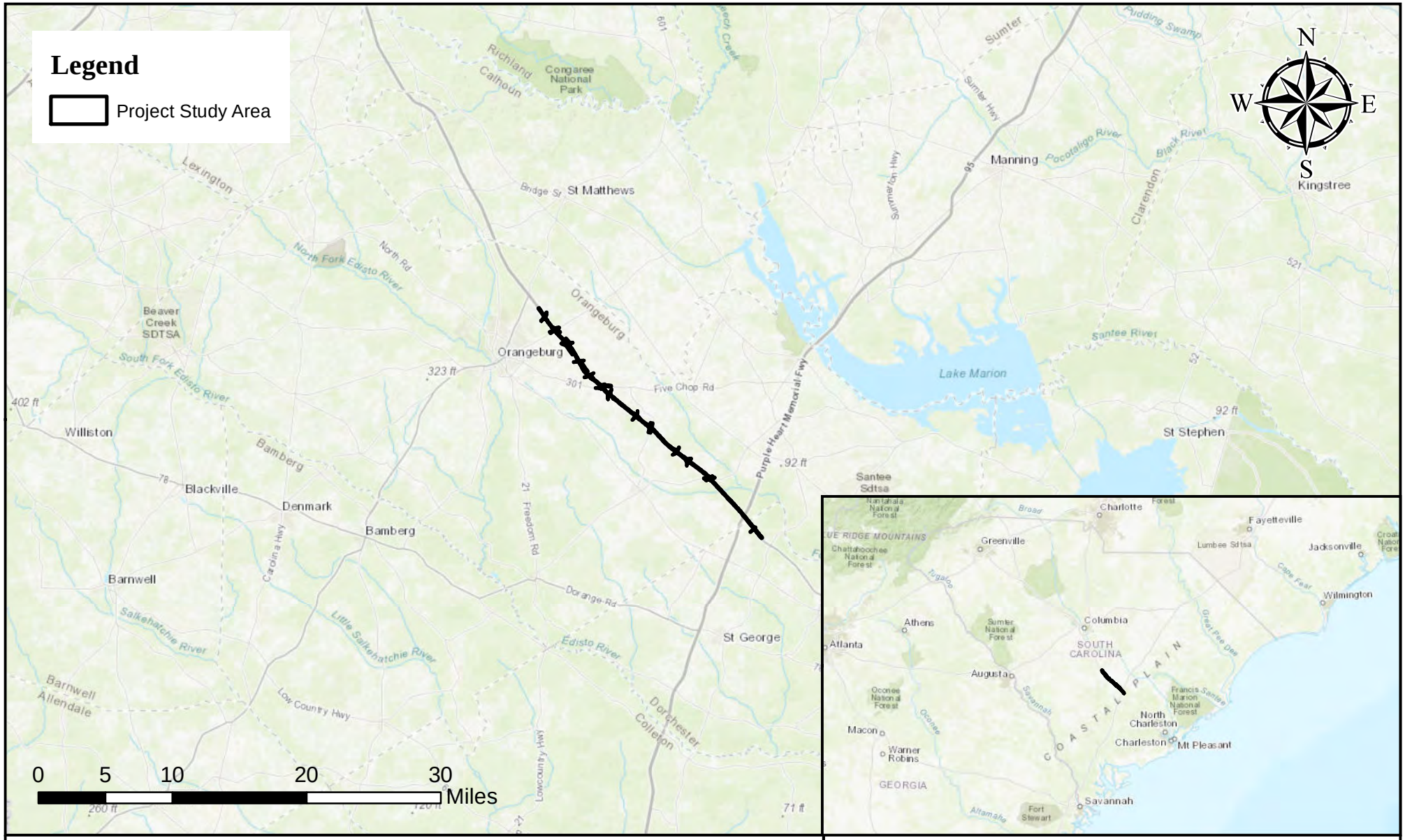


Figure 1 - Location Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

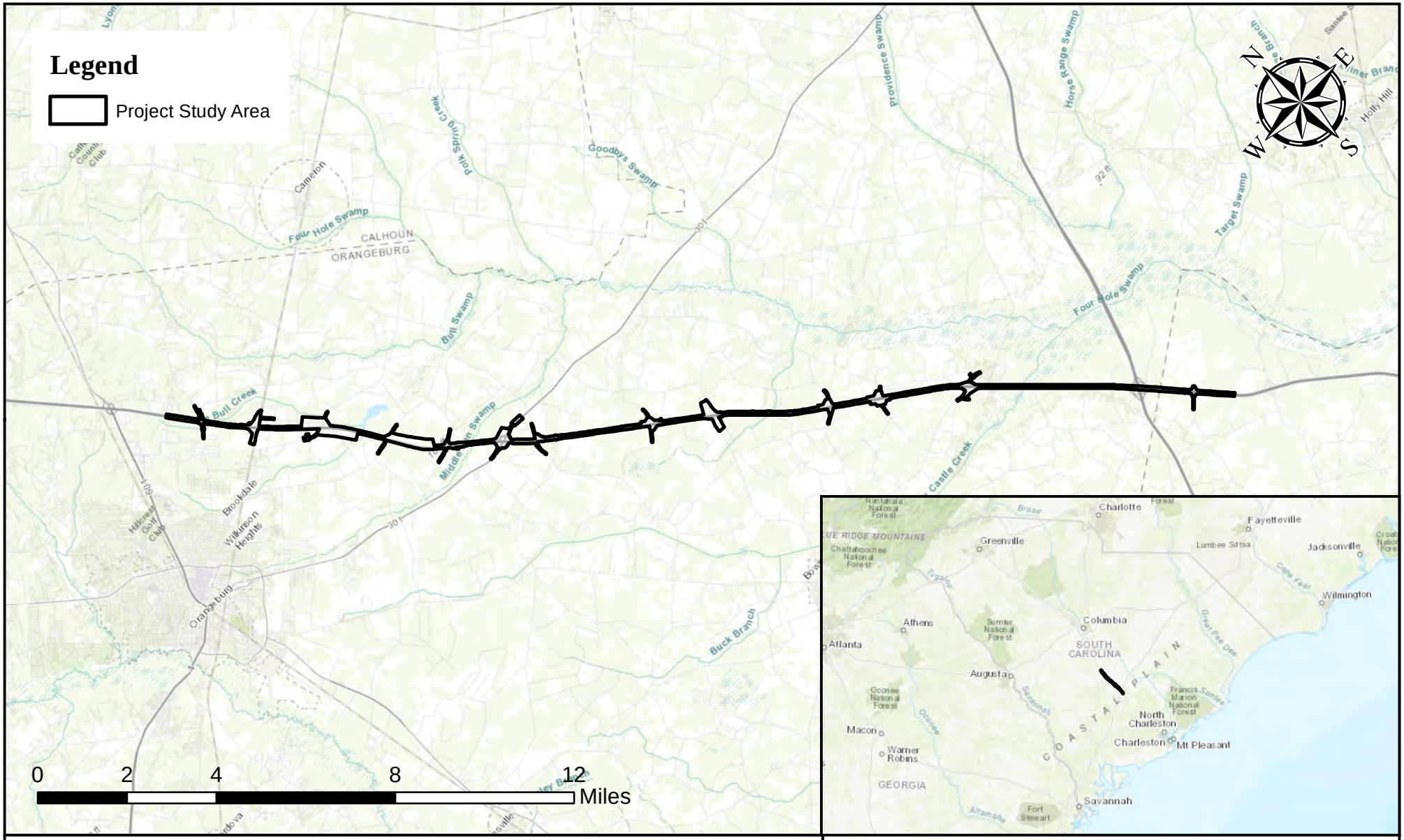


Figure 2 - Project Location Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

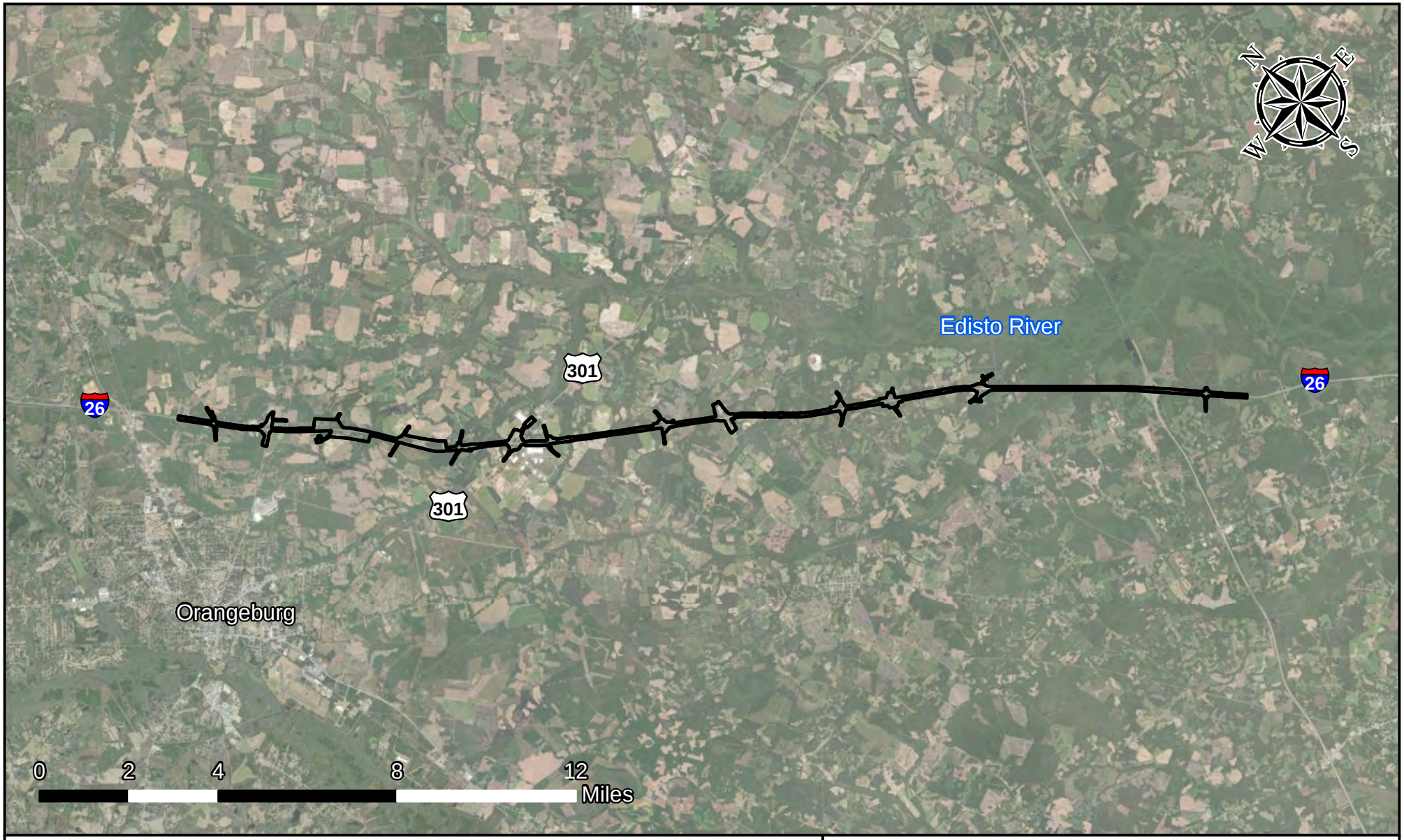


Figure 3 - Aerial Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

Figure 4A - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

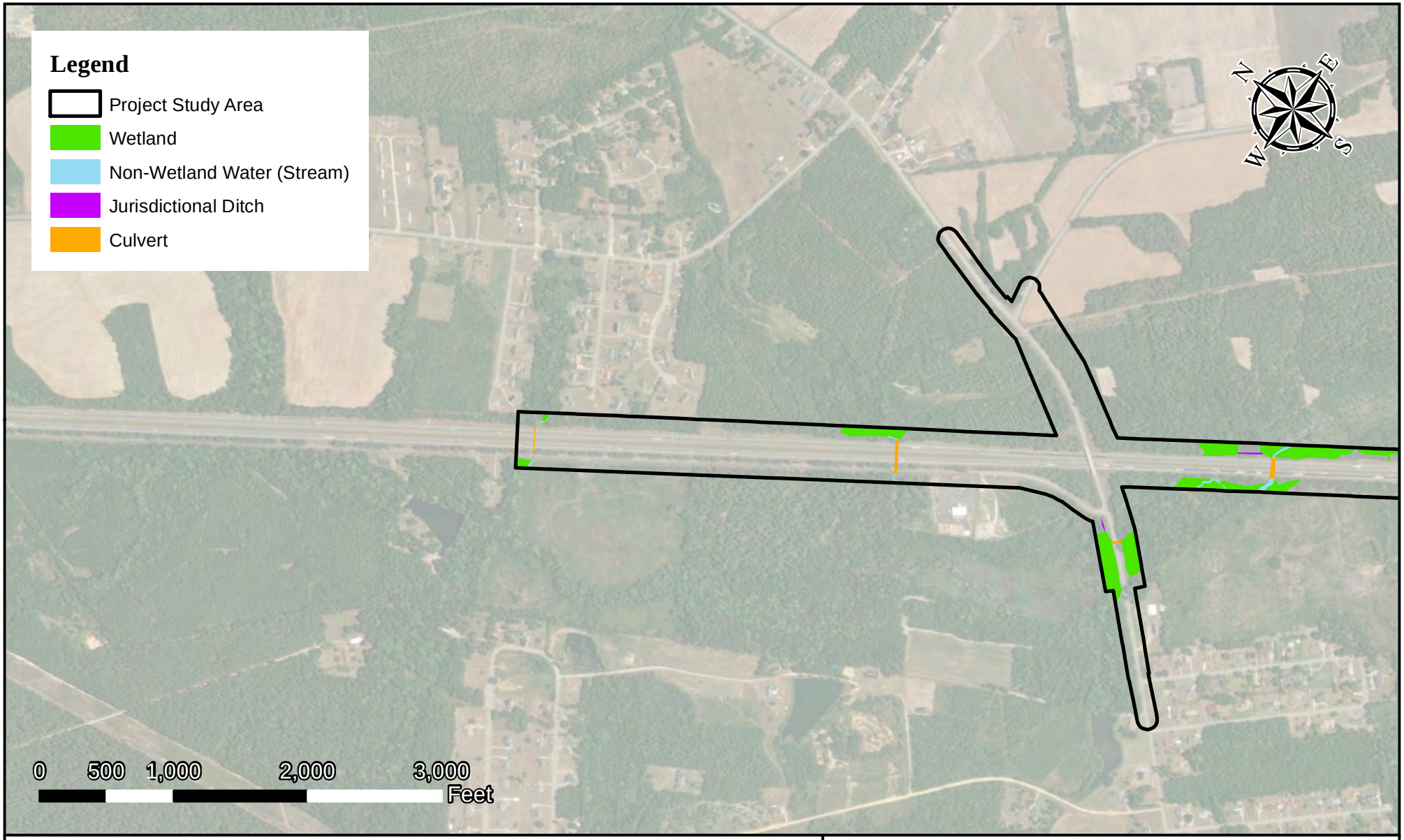


Figure 4B - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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South Carolina Department of Transportation

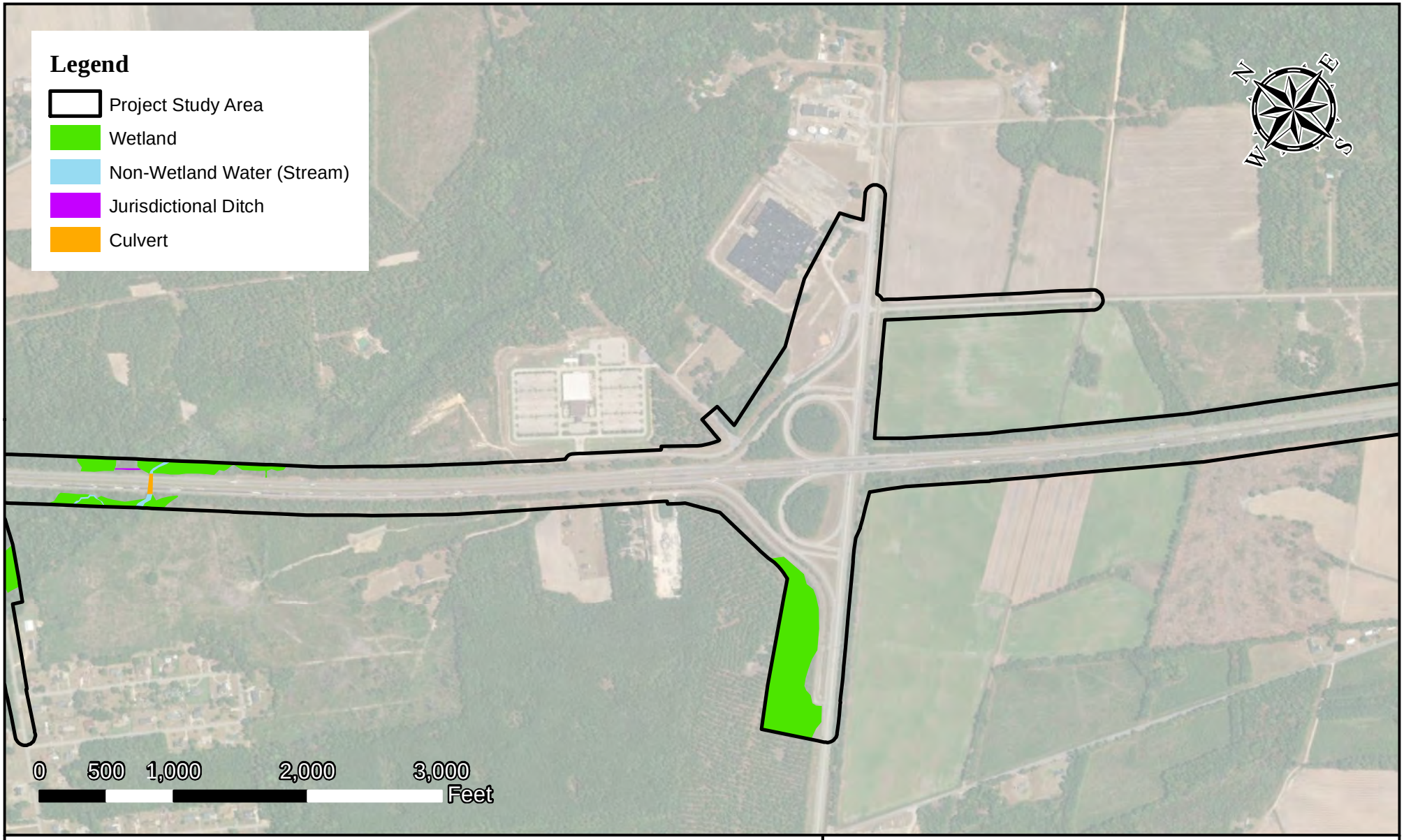

Figure 4C - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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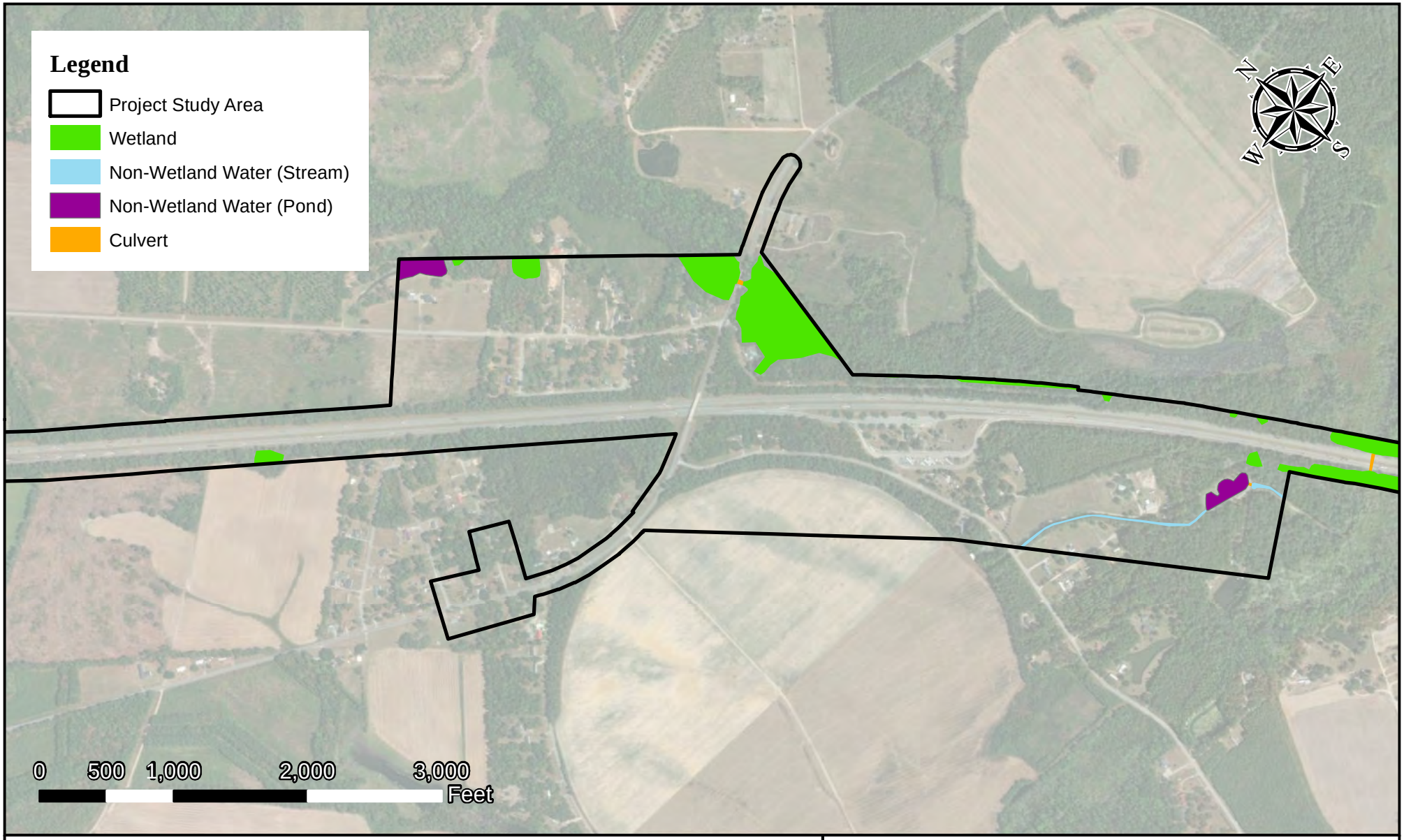

Figure 4D - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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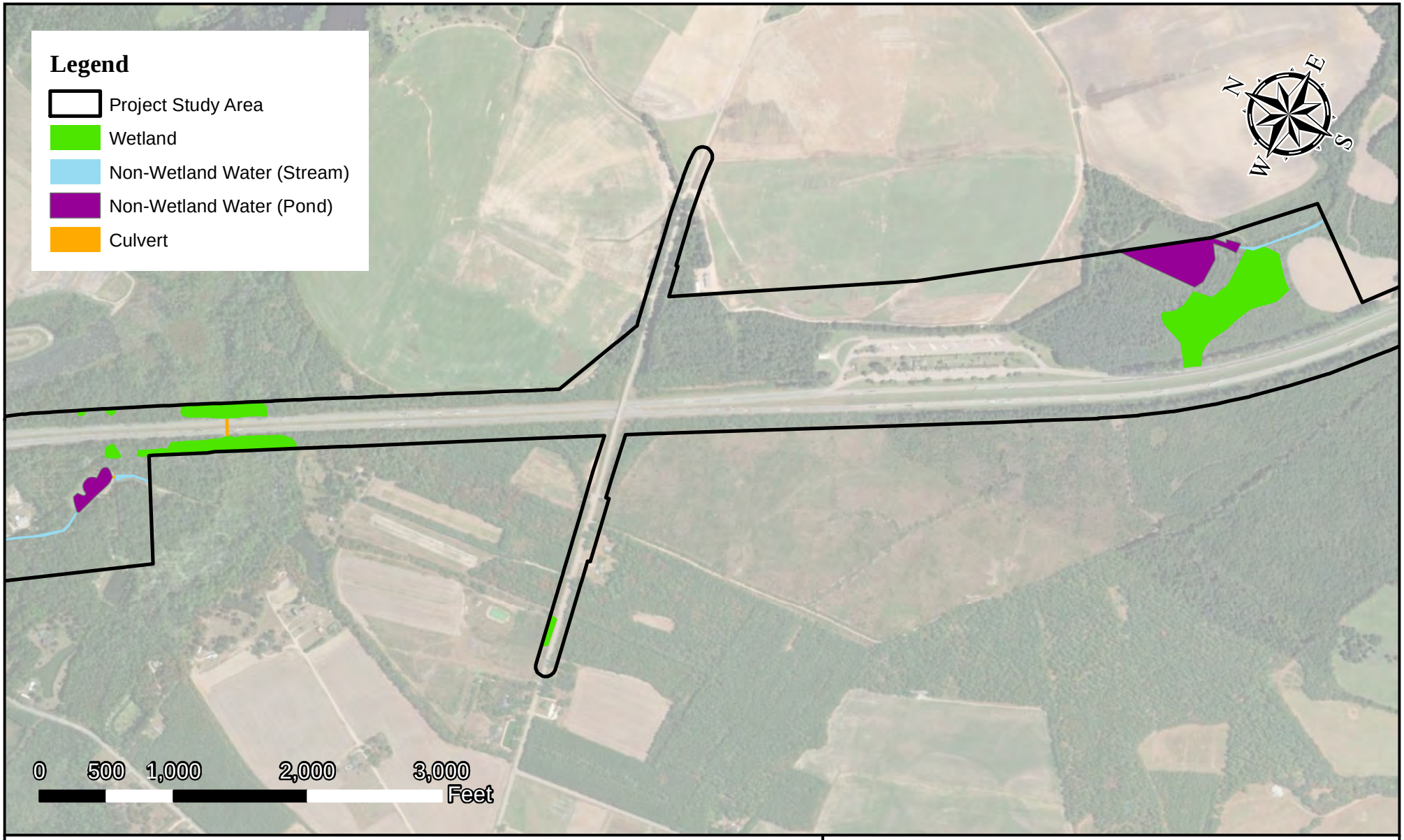

Figure 4E - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

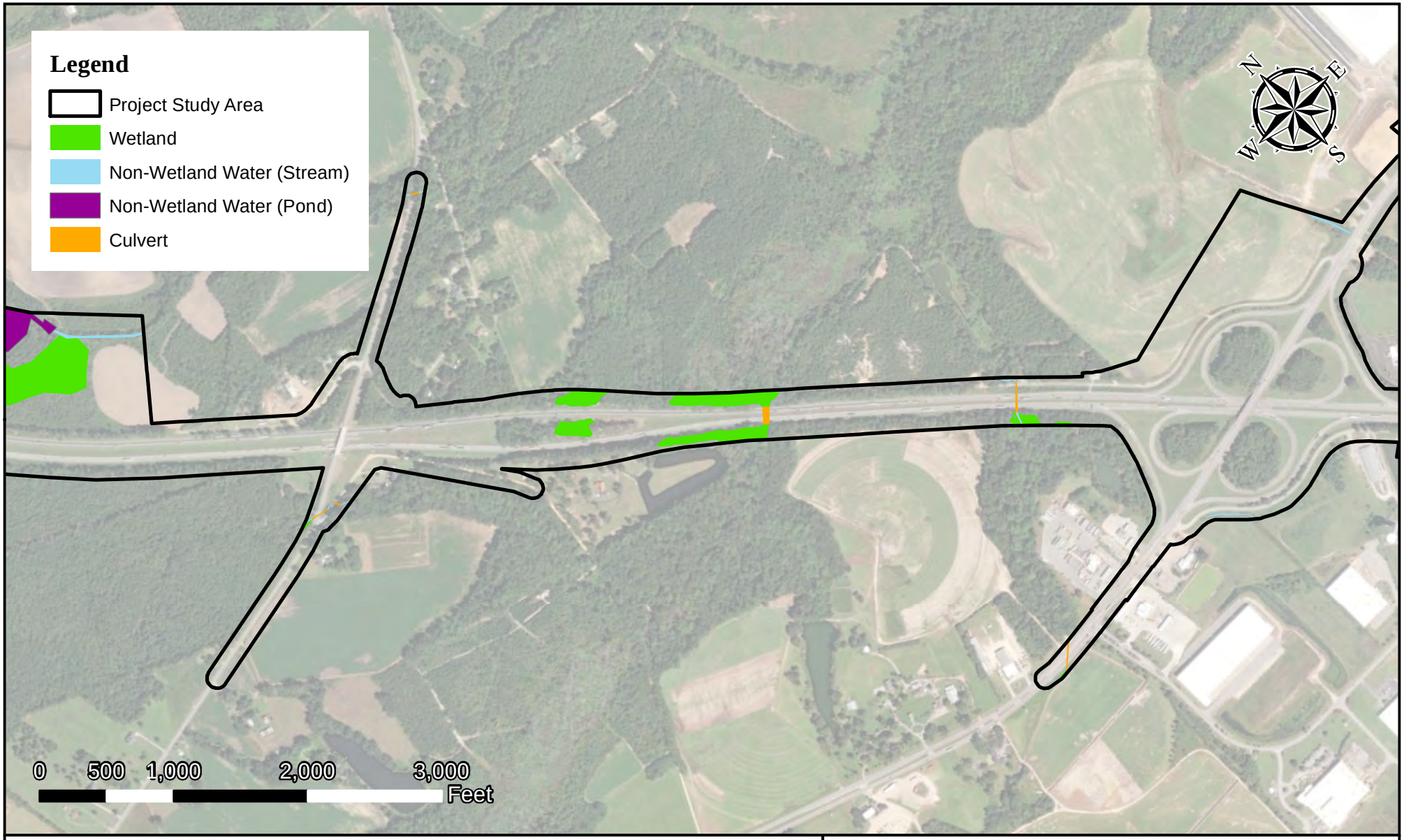

Figure 4F - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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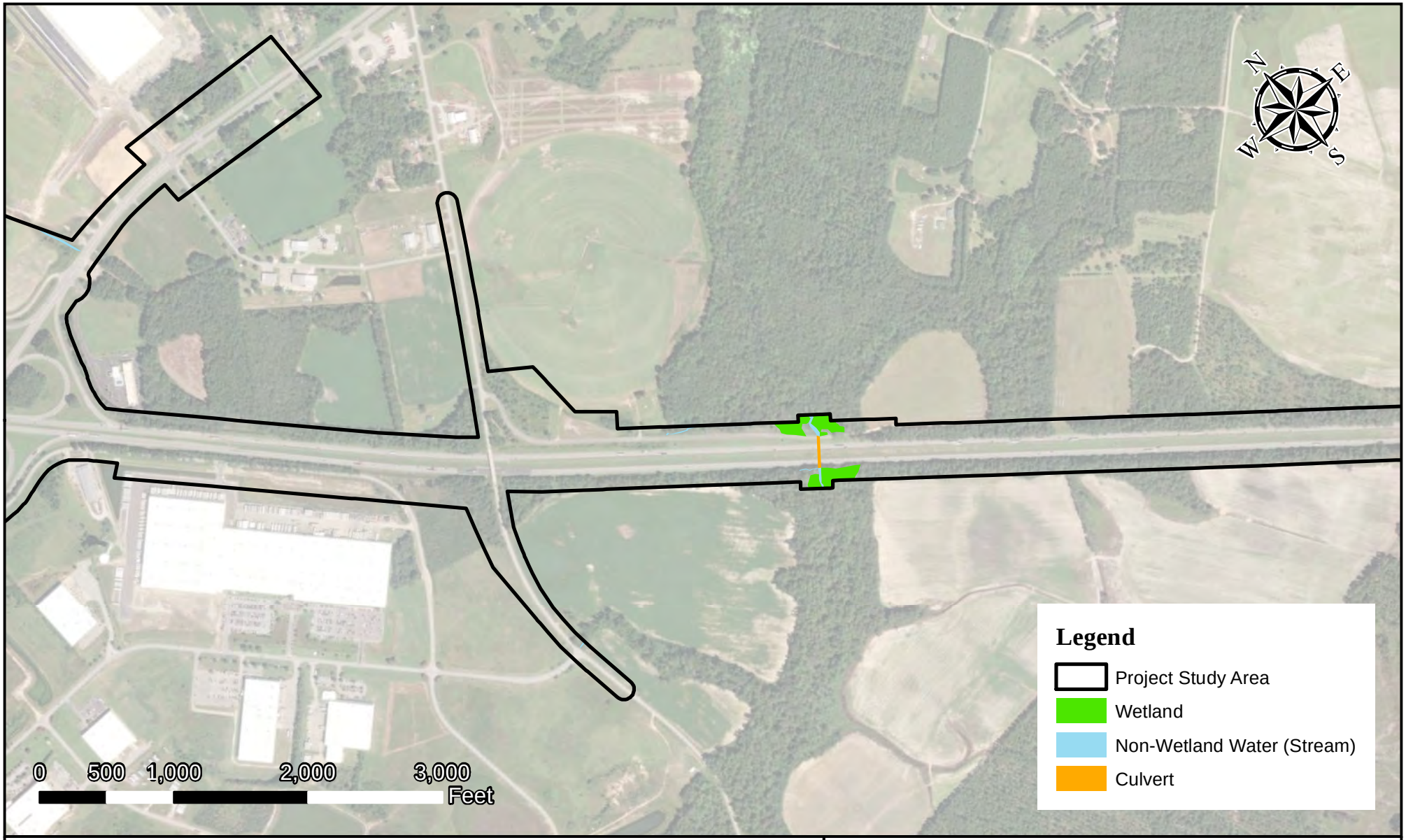

Figure 4G - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
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Date: September, 2025

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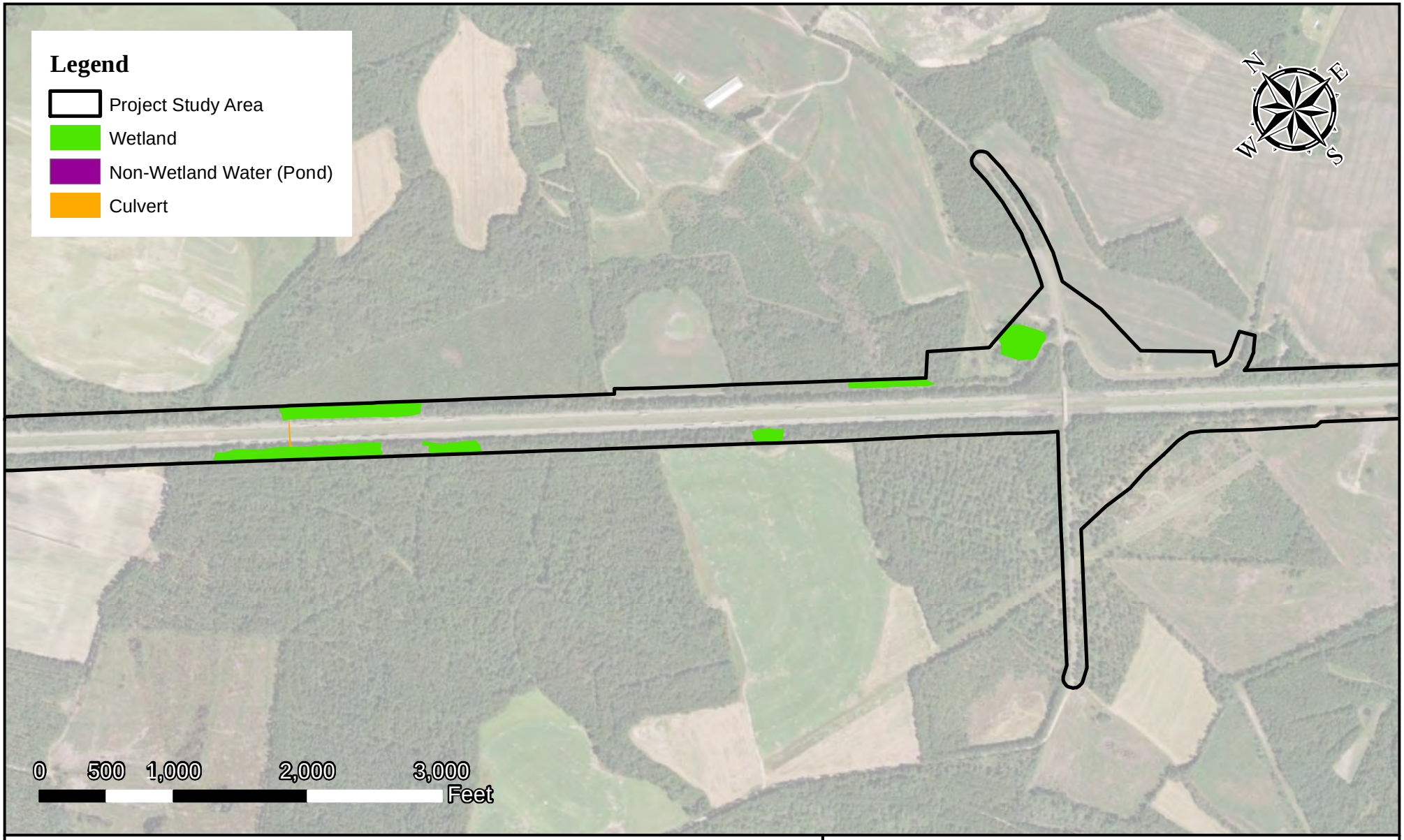

Figure 4H - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

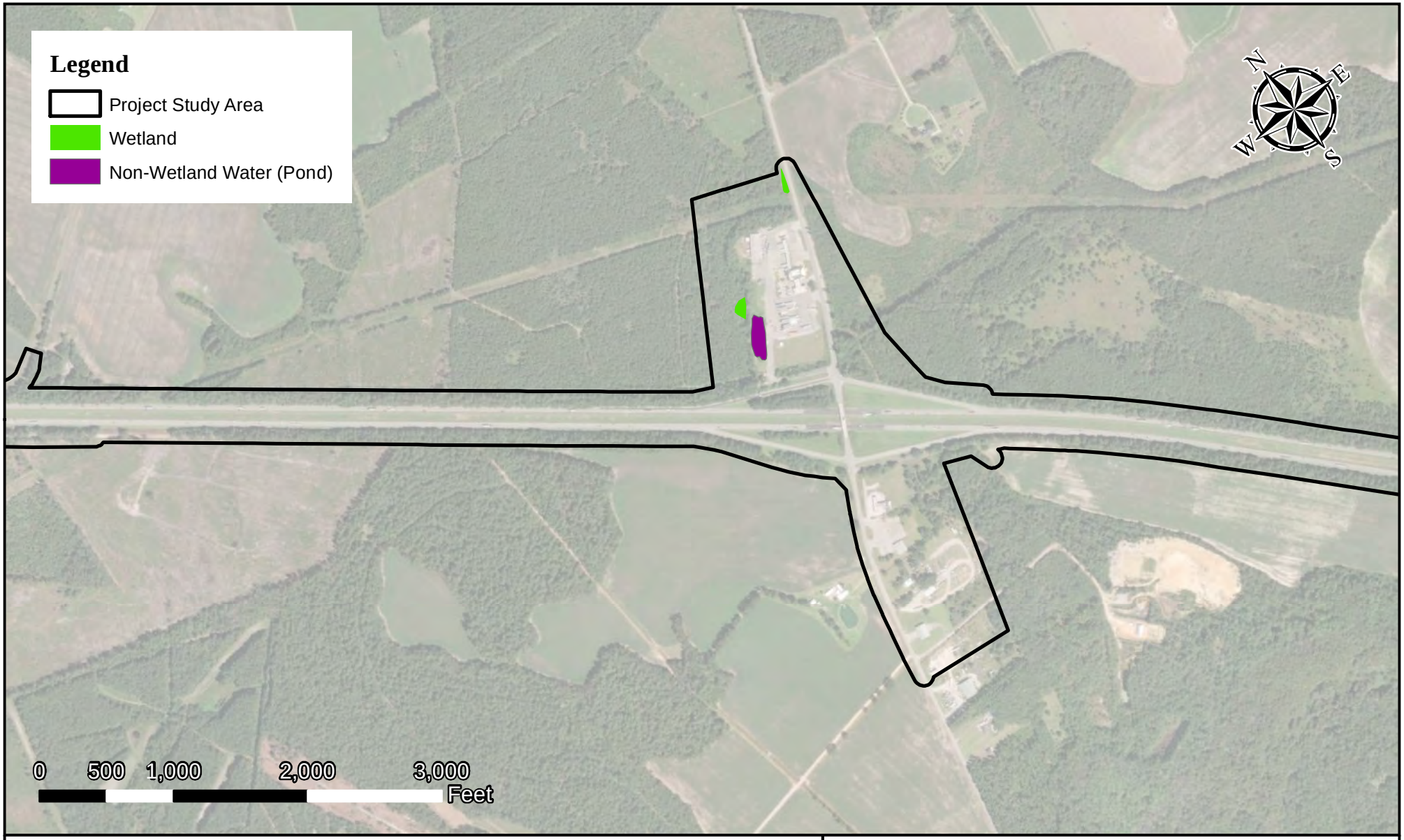

Figure 4I - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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South Carolina Department of Transportation

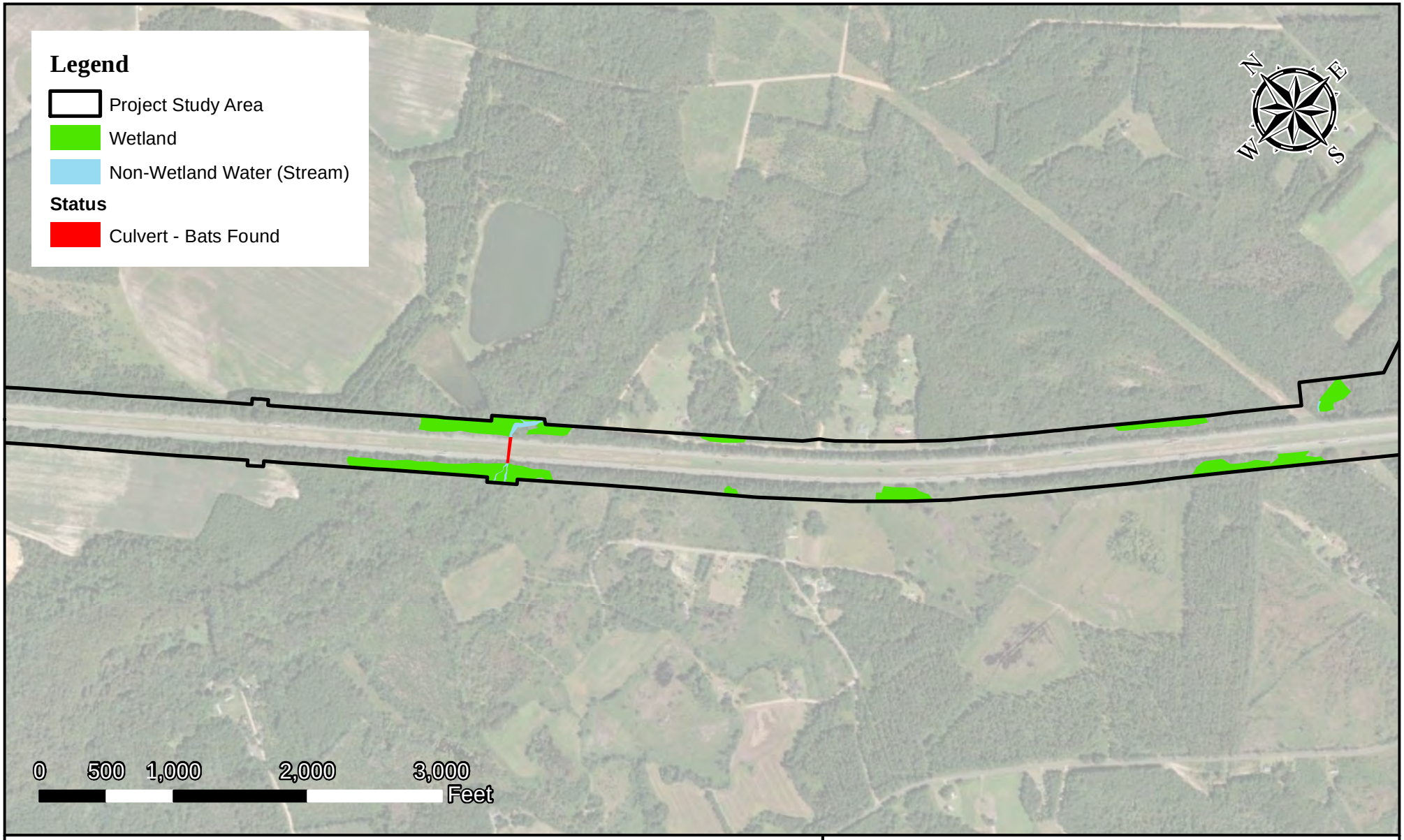

Figure 4J - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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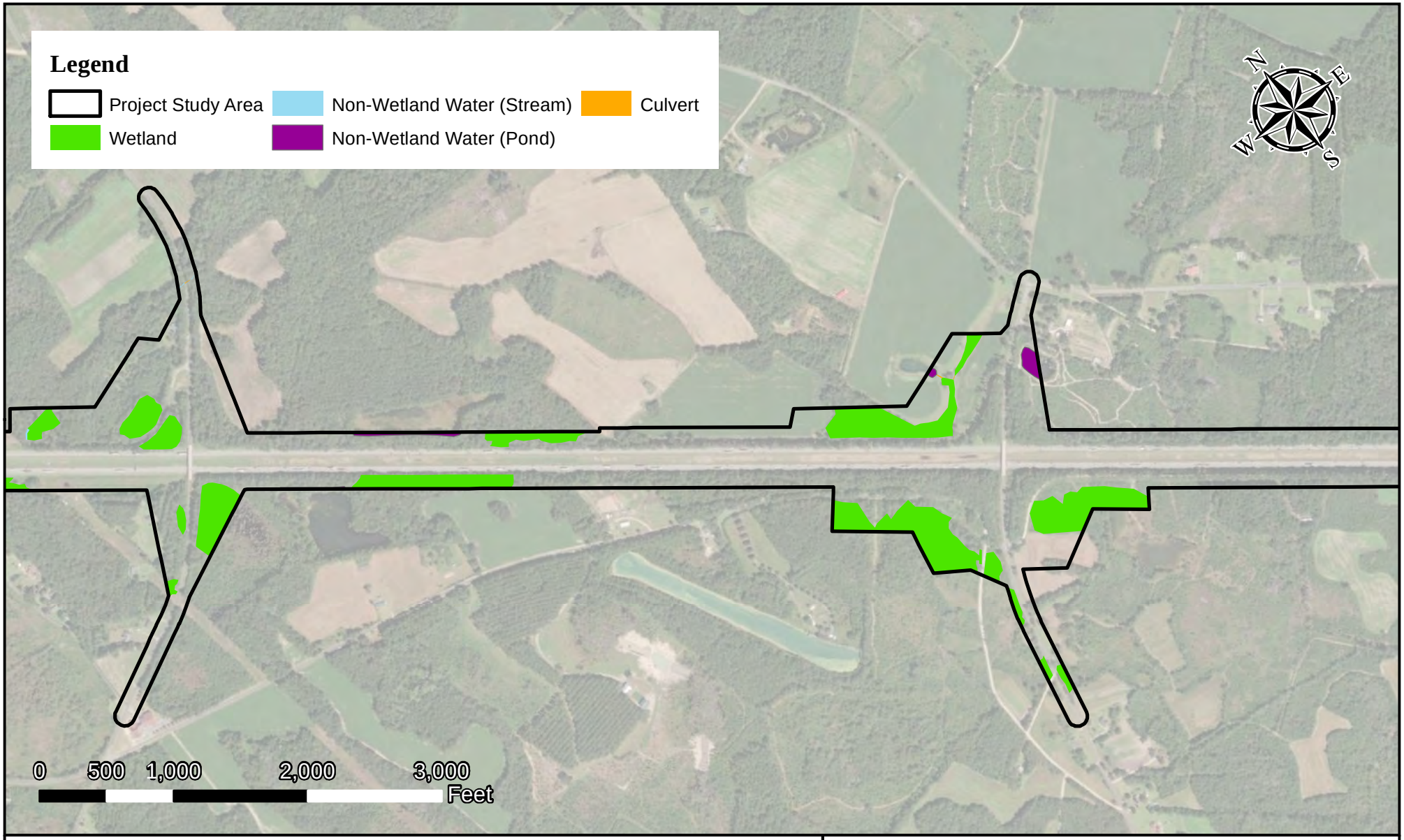

Figure 4K - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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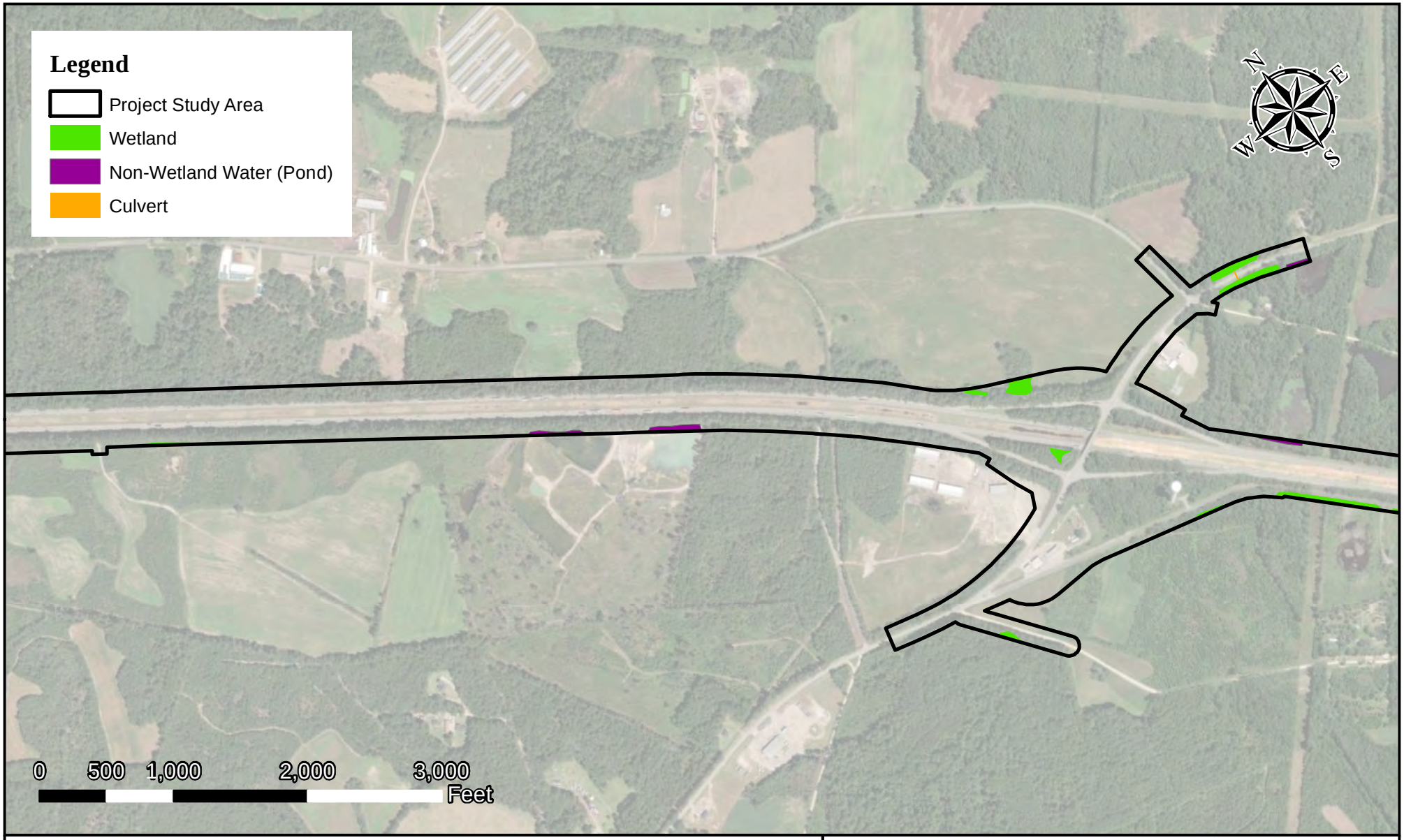

Figure 4L - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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South Carolina Department of Transportation

Figure 4M - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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South Carolina Department of Transportation

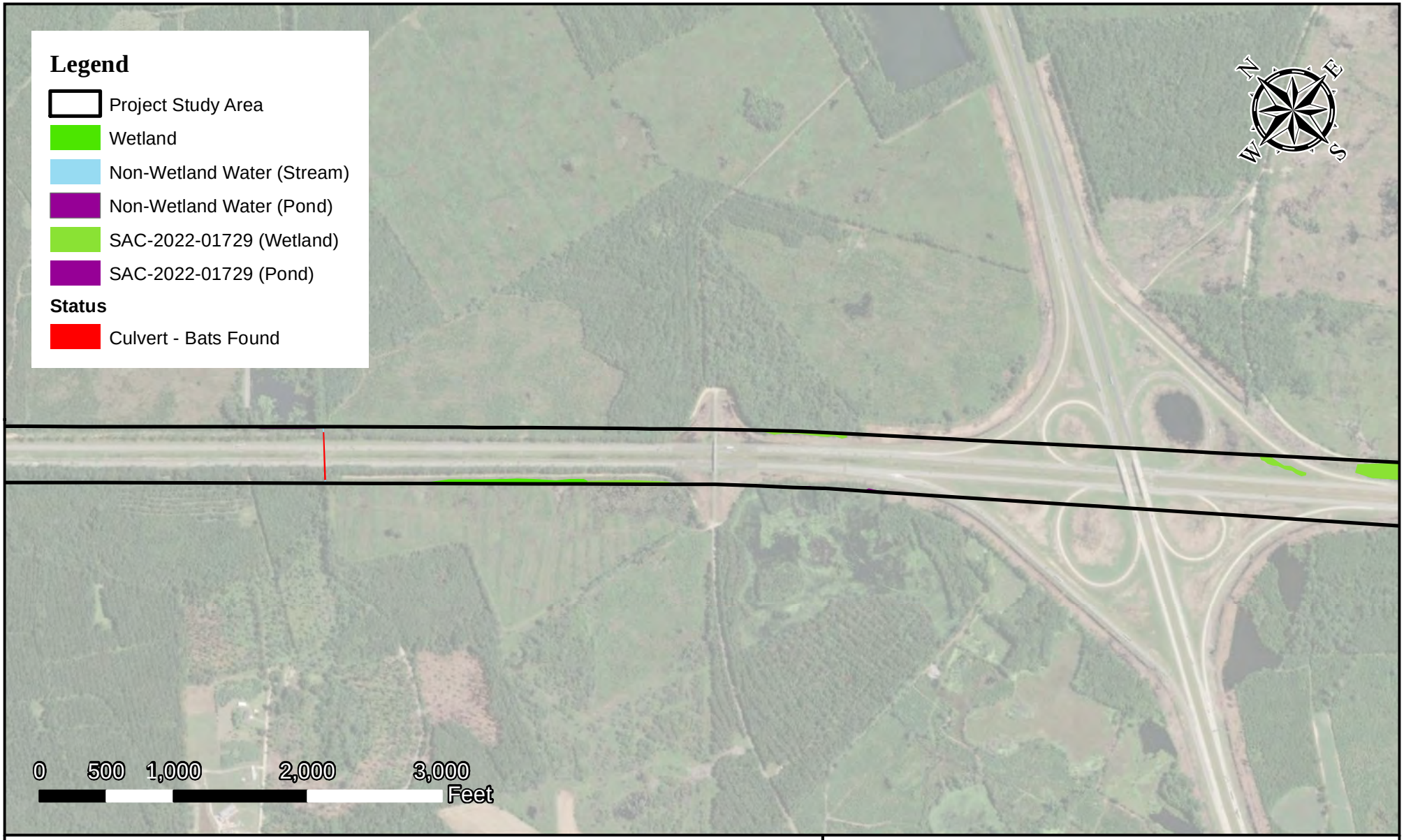

Figure 4N - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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South Carolina Department of Transportation

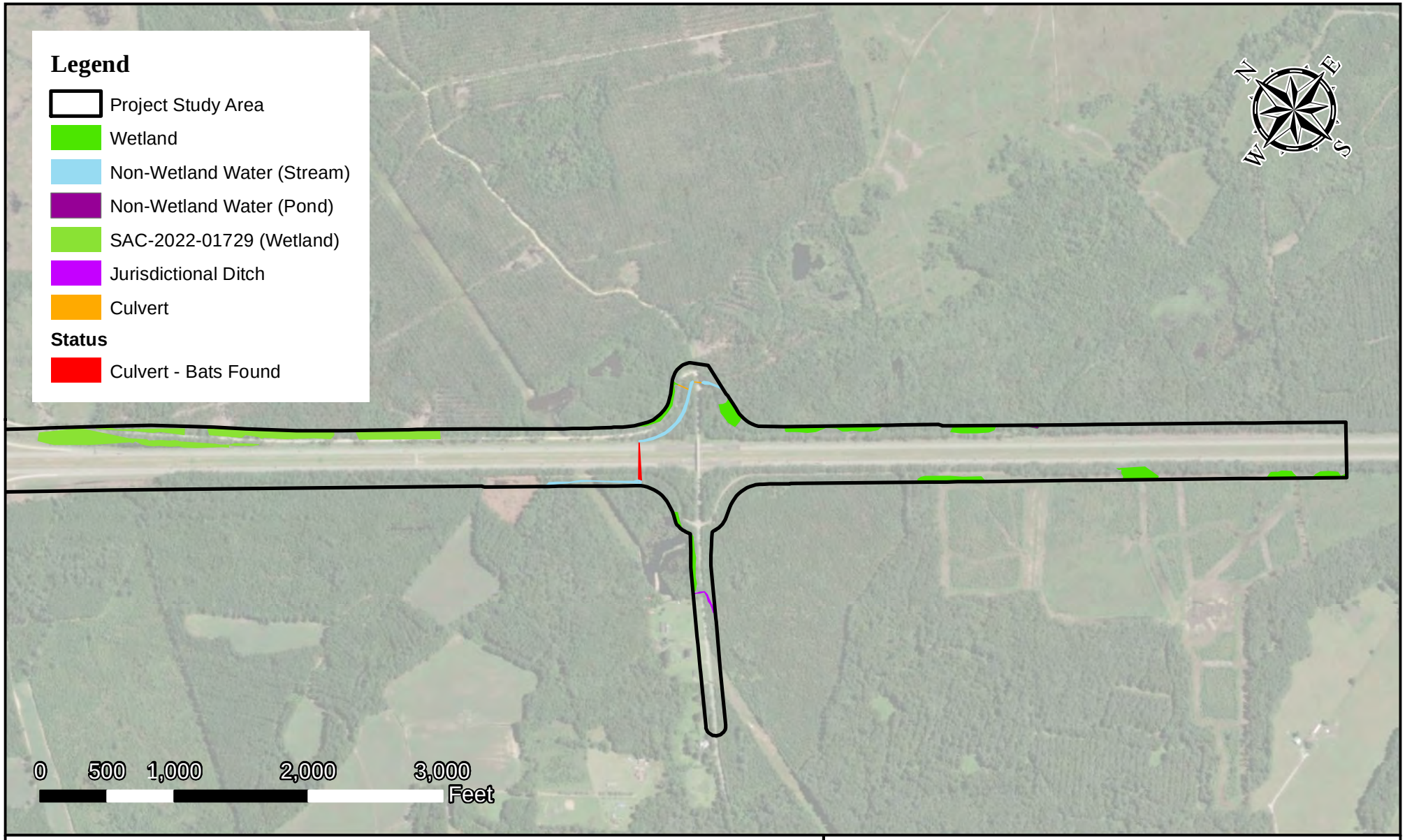


Figure 4O - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

APPENDIX B

Protected Species Lists and Reports

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To: 08/18/2025 16:50:18 UTC
Project Code: 2025-0137140
Project Name: I-26 Corridor Improvements MM 145-172

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

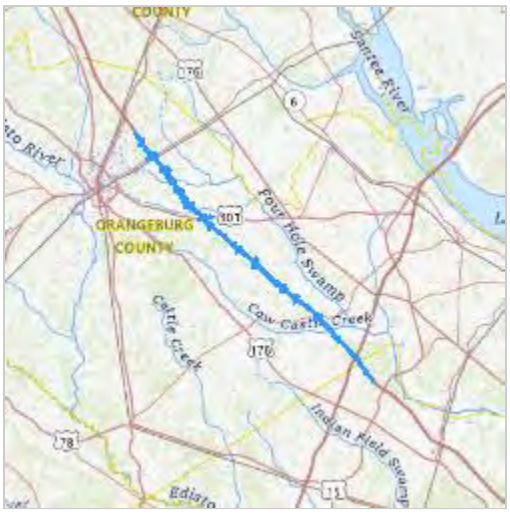
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
(843) 727-4707

PROJECT SUMMARY

Project Code: 2025-0137140
Project Name: I-26 Corridor Improvements MM 145-172
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Widening I-26 in Orangeburg and Dorchester Counties from MM 145 - 172 and improvements to interchanges.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.41893905,-80.6749348674596,14z



Counties: Dorchester and Orangeburg counties, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UGVTWFW7INARRIH74B7N7BM3XA/documents/generated/9721.pdf	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UGVTWFW7INARRIH74B7N7BM3XA/documents/generated/9721.pdf	Proposed Endangered

BIRDS

NAME	STATUS
Red-cockaded Woodpecker *Dryobates borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Canby's Dropwort *Oxypolis canbyi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7738 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UGVTWFW7INARRIH74B7N7BM3XA/documents/generated/9753.pdf	Endangered
Pondberry *Lindera melissifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279 General project design guidelines: https://ipac.ecosphere.fws.gov/project/UGVTWFW7INARRIH74B7N7BM3XA/documents/generated/9753.pdf	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For

assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

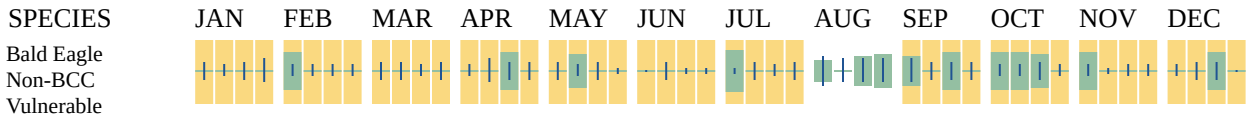
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

NAME	BREEDING SEASON
Brown-headed Nuthatch *Sitta pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Chuck-will's-widow *Antrostomus carolinensis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9604	Breeds May 10 to Jul 10
Coastal (waynes) Black-throated Green Warbler *Setophaga virens waynei* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11879	Breeds May 1 to Aug 15
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Grasshopper Sparrow *Ammodramus savannarum perpallidus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Henslow's Sparrow *Centronyx henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds elsewhere
Kentucky Warbler *Geothlypis formosa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Le Conte's Sparrow *Ammospiza leconteii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9469	Breeds elsewhere
Least Tern *Sternula antillarum antillarum* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11919	Breeds Apr 25 to Sep 5

NAME	BREEDING SEASON
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Painted Bunting *Passerina ciris* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511	Breeds Apr 25 to Aug 15
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prairie Warbler *Setophaga discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper *Calidris pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

NAME	BREEDING SEASON
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

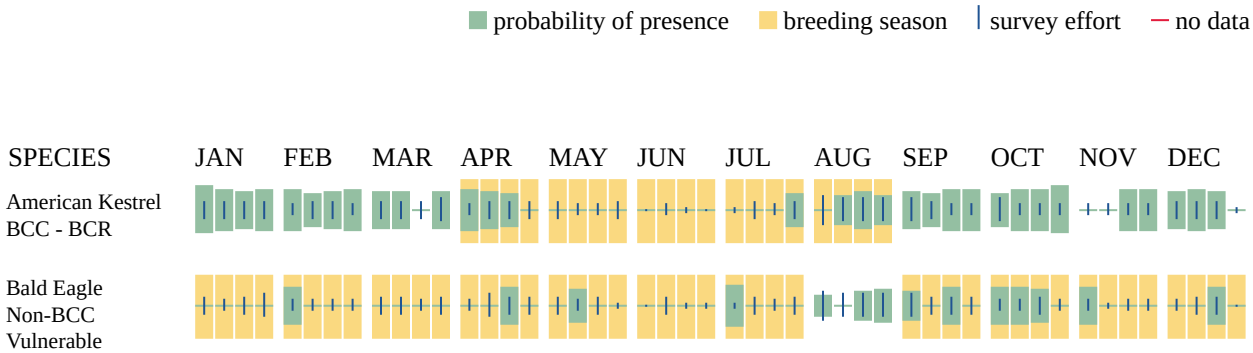
Probability of Presence (■)

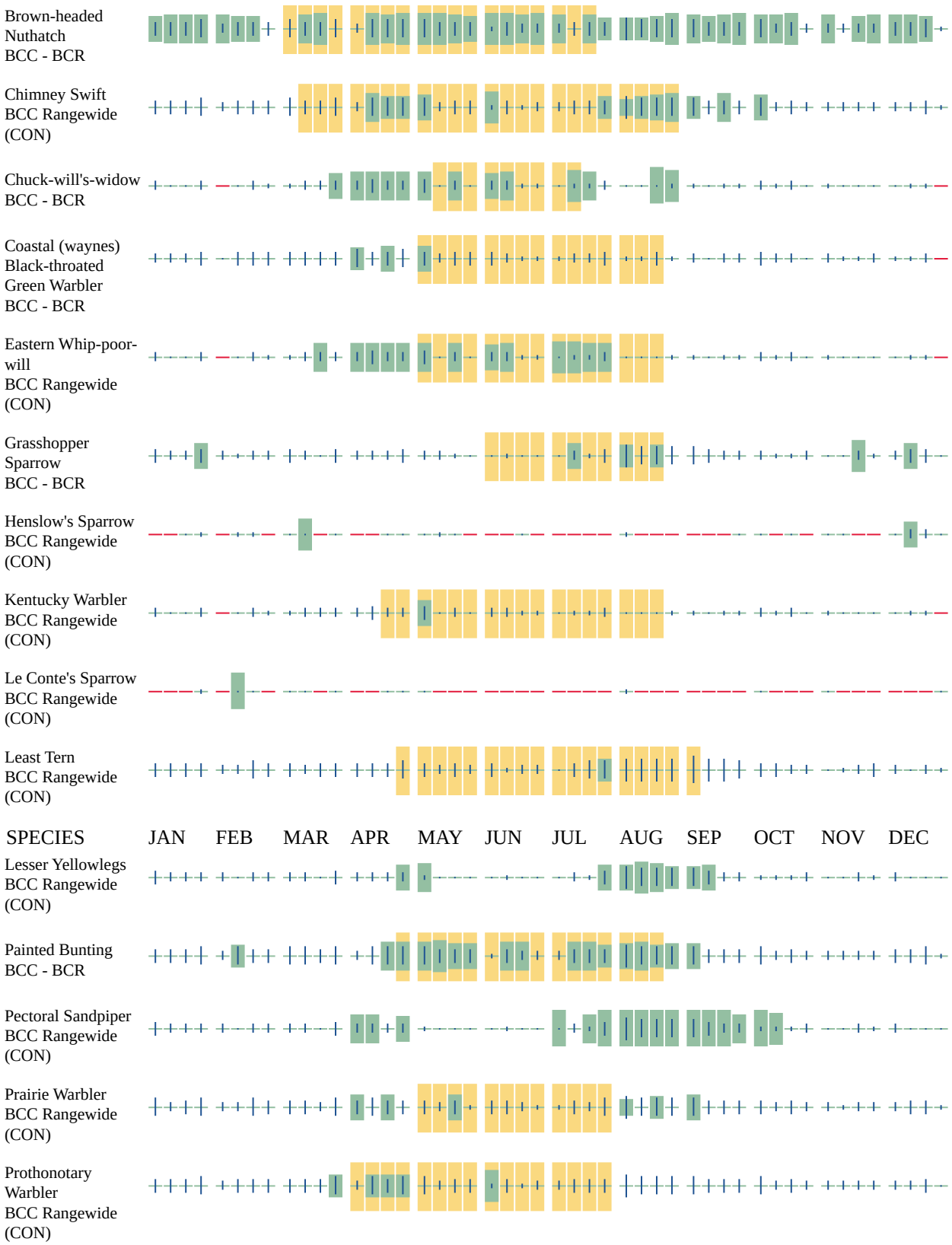
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

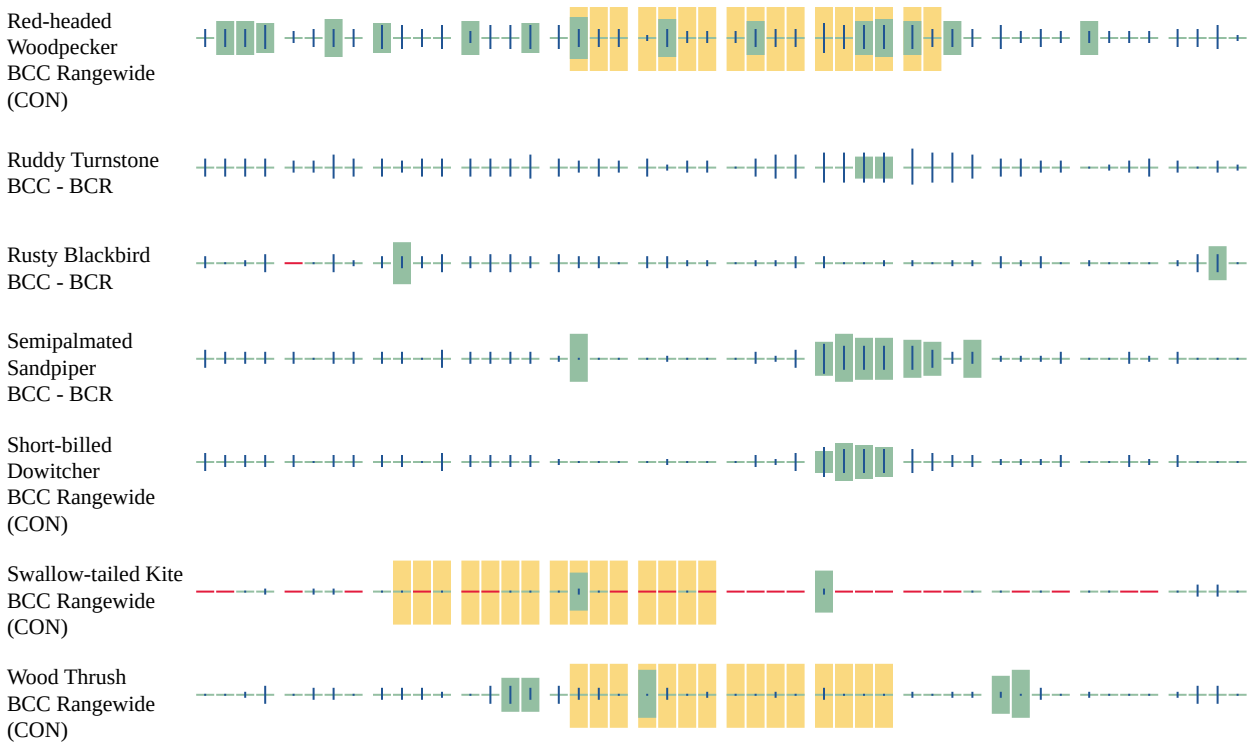
Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.




Brown-headed Nuthatch BCC - BCR
Chimney Swift BCC Rangewide (CON)
Chuck-will's-widow BCC - BCR
Coastal (waynes) Black-throated Green Warbler BCC - BCR
Eastern Whip-poor-will BCC Rangewide (CON)
Grasshopper Sparrow BCC - BCR
Henslow's Sparrow BCC Rangewide (CON)
Kentucky Warbler BCC Rangewide (CON)
Le Conte's Sparrow BCC Rangewide (CON)
Least Tern BCC Rangewide (CON)
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Lesser Yellowlegs BCC Rangewide (CON)
Painted Bunting BCC - BCR
Pectoral Sandpiper BCC Rangewide (CON)
Prairie Warbler BCC Rangewide (CON)
Prothonotary Warbler BCC Rangewide (CON)



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Zachary Biltoft
Address: 1022 State Street
City: Cayce
State: SC
Zip: 29033
Email zach.biltoft@threeoaksengineering.com
Phone: 8648149327

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To: 01/23/2025 16:42:35 UTC
Project code: 2024-0138645
Project Name: I-26 Corridor Improvements MM 145-172

Subject: Consistency letter for 'I-26 Corridor Improvements MM 145-172' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the South Carolina Ecological Services Field Office (ESFO) Determination Key (DKey) for project review and guidance for federally listed species.

Megan McCann:

The U.S. Fish and Wildlife Service (Service) received on **January 23, 2025** your effect determination(s) for the 'I-26 Corridor Improvements MM 145-172' (the Action) using the South Carolina ESFO DKey for project review and guidance for federally-listed species within the Information for Planning and Consultation (IPaC) application. The Service developed this application in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's South Carolina ESFO DKey, you made the following effect determination(s) for the proposed Action:

Species	**Listing Status**	**Determination**
Canby's Dropwort (*Oxypolis canbyi*)	Endangered	No effect
Pondberry (*Lindera melissifolia*)	Endangered	No effect
Red-cockaded Woodpecker (*Dryobates borealis*)	Threatened	No effect

Consultation Status

Your agency has met consultation requirements for the species listed above by informing the Service of the "no effect" determinations. No further consultation for this project is required for these species. This consistency letter confirms you may rely on effect determinations you reached by considering the South Carolina ESFO DKey to satisfy agency consultation requirements under Section 7(a) (2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

The following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

Please note that due to obligations under the ESA, potential impacts of this project must be reconsidered if: (1) new information reveals impacts of this identified action may affect any listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner which was not considered in this assessment; or (3) a new species is listed or critical habitat is designated that may be affected by the identified action. If any of the above conditions occurs, additional consultation with the South Carolina ESFO should take place before project changes are final or resources committed.

Bald and Golden Eagle Protection Act (BGEPA): Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service. The Service developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest.

If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) may be required. Please contact Ulgonda Kirkpatrick (phone: 321/972-9089, e-mail: ulgonda_kirkpatrick@fws.gov) with any questions regarding potential impacts to bald or golden eagles.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

I-26 Corridor Improvements MM 145-172

2. Description

The following description was provided for the project 'I-26 Corridor Improvements MM 145-172':

> Widening I-26 in Orangeburg County from MM 145 - 172 to six lanes and improvements to interchanges.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.4518045,-80.7228304636388,14z

QUALIFICATION INTERVIEW

1. Does the proposed project involve research or other actions that include the collection, capture, handling, or harassment of any individual federally listed threatened, endangered or proposed species?

   No

2. Is the action authorized, funded, or being carried out by a Federal agency?

   No

3. Is the project an existing structure that requires maintenance, repair, or replacement?

   No

4. Does the project intersect the red-cockaded woodpecker AOI?

   Automatically answered
   Yes

5. Is the action area located within suitable Red-cockaded woodpecker foraging habitat (pine or pine/hardwood stands in which 50% or more of the dominant trees are pines and the dominant pine trees are 30 years of age or older or >10-inches diameter breast height (dbh) and the midstory height does not exceed 12 feet)?

   No

6. Does the project intersect the pondberry AOI?

   Automatically answered
   Yes

7. Is there suitable pondberry habitat (e.g., pond margins, swampy depressions, sandy sinks, and seasonally flooded wetlands) for pondberry located within the project area?

   Yes

8. Will the project impact suitable pondberry habitat?

   No

9. Does the project intersect the Canby's dropwort AOI?

   Automatically answered
   Yes

10. Is there suitable habitat for Canby's dropwort located within the project area?

    Note: Canby’s Dropwort can be found in a variety of coastal plain habitats, including natural ponds dominated by pond cypress, grass-sedge-dominated Carolina bays, wet pine savannas, shallow pineland ponds and cypress-pine swamps or sloughs. The largest and most vigorous populations have been found in open bays or ponds that are wet throughout most of the year, but which have little or no canopy cover. Soils are sandy loams or acidic peat mucks underlain by clay layers which, along with the slight gradient of the areas, result in the retention of water.

    No

11. This determination key does not cover the Northern long-eared bat. Have you or will you complete the Determination Key for the Northern long-eared bat?

    Yes

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Megan McCann
Address: 1022 State St
Address Line 2: Building #2
City: Cayce
State: SC
Zip: 29033
Email megan.mccann@threeoaksengineering.com
Phone: 5136128763

LEAD AGENCY CONTACT INFORMATION

Lead Agency: South Carolina Department of Transportation

From:	Frierson, Edward, W.
To:	Wade Biltoft
Cc:	Christy Shumate; Williams, Lee
Subject:	FW: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645
Date:	Friday, May 16, 2025 8:56:22 AM

Wade and Christy,
Please make sure Jessica's email below is part of the NEPA document.
Thanks,

Ed Frierson
Midlands NEPA Coordinator/Biologist
P 803-737-1861 **M** 803-312-2759 **E** FriersonEW@scdot.org
South Carolina Department of Transportation
955 Park Street, P.O. Box 191, Columbia, SC 29202-0191

From: Hinson, Jessica R <jessica_hinson@fws.gov>
Sent: Thursday, May 15, 2025 6:57 PM
To: Frierson, Edward, W. <FriersonEW@scdot.org>
Cc: Charleston Regulatory, FW4 <charleston_regulatory@fws.gov>; batsurveyreports@dnr.sc.gov
Subject: Re: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Hello Ed,

I have reviewed the bridge/culvert assessment report for the proposed I-26 Widening from MM 145-172 project in Orangeburg and Dorchester County (FWS Project Code: 2024-0138645) and find it to be acceptable for presence of the proposed endangered tricolored bat (*Perimyotis subflavus*) utilizing the surveyed bridges and/or culverts. Please be aware that my approval of these survey results is not a section 7(a)(2) concurrence and does not authorize implementation of any part of the proposed action or remove the applicant from the permitting requirements that may be required by other State and federal agencies. Additional coordination with our office may be necessary. Please submit consultation requests through https://ipac.ecosphere.fws.gov/ and any additional project questions to our office email account at charleston_regulatory@fws.gov .

For any bridges or culverts that could not be surveyed due to inaccessibility caused by seasonal or temporary flooding, we request that these structures are checked again prior to project implementation if the structure becomes safely accessible. Structures that remain flooded or are underwater do not need to be surveyed again.

As you know, the tricolored bat (*Perimyotis subflavus*) is currently proposed for listing and does not have the full protection of a listed species under the ESA. The Service acknowledges SCDOT and FHWA commitment to re-initiate consultation, if potential project impacts (i.e., bridge or culvert maintenance or demolition) have not occurred prior to the effective date of a listing determination, if the species is warranted for listing. To minimize or avoid unforeseen impacts in the year-round active range, the Service recommends the voluntary conservation measures of 1) culverts/bridges will be surveyed for evidence of bat use/presence prior to working on the culvert; 2) if bat evidence or bat sightings are unexpectedly made during structure maintenance or demolition, the contractor will stop work and the Service will be notified immediately. No work will resume at the structure location until discussions with the Service have concluded; and 3) avoid culvert, bridge, or other structure removal or modification during winter months (Dec. 15th - Feb. 15th) or pup season (May 1st - July 15th), when bats are present or assumed present. Listing updates for tricolored bat can be found here.

The Service recommends that you contact the South Carolina Department of Natural Resources regarding potential impacts to State protected species. This email will serve as our official response.

Please include my email accepting these results as an attachment when completing and submitting the project package.

Thank you. Please let me know if you have any further questions.

Sincerely,

Jessica R. Hinson, M.S.
Fish and Wildlife Biologist
SCDOT Liaison
U.S. Fish and Wildlife Service
South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
Email: jessica_hinson@fws.gov
Work Phone: 854-253-0441

South Carolina Ecological Services Field Office | U.S. Fish & Wildlife Service

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

From: Hinson, Jessica R <jessica_hinson@fws.gov>
Sent: Monday, May 5, 2025 8:24 PM
To: Frierson, Edward, W. <FriersonEW@scdot.org>
Subject: Re: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Hi Ed,

Thank you! I will take a look at this and get back to you as soon as I can.

If you don't have all of the photos of the structures readily available, then that is fine. If I have any further questions about the surveyed structures without photos, I will let you know. I would just recommend that for future projects to include a photo log that includes at least one representative image of each surveyed structure, per the approved SCDOT Study and Work Plan for bridges and culverts and Appendix K of the USFWS Survey Guidelines.

I hope you are doing well and having a great week so far!

Sincerely,

Jessica R. Hinson, M.S.
Fish and Wildlife Biologist
SCDOT Liaison
U.S. Fish and Wildlife Service
South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
Email: jessica_hinson@fws.gov
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From: Frierson, Edward, W. <FriersonEW@scdot.org>
Sent: Monday, May 5, 2025 4:37 PM
To: Hinson, Jessica R <jessica_hinson@fws.gov>

Subject: RE: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Hey Jessica,
Attached are the revised BE and inspection forms. We don't have photos for ALL the bridges and culverts but most of them. If that is a necessity, we can get them for you.
Ed

Christy Shumate

From: Frierson, Edward, W. <FriersonEW@scdot.org>
Sent: Tuesday, May 20, 2025 8:46 AM
To: Wade Biltoft
Cc: Christy Shumate
Subject: FW: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Wade and Christy,
Here is Jessica's official concurrence. Attach this to the document as well.
Ed

From: Hinson, Jessica R <jessica_hinson@fws.gov>
Sent: Monday, May 19, 2025 2:42 PM
To: Frierson, Edward, W. <FriersonEW@scdot.org>
Cc: Charleston Regulatory, FW4 <charleston_regulatory@fws.gov>; batsurveyreports@dnr.sc.gov; JohnsonHughes, Christy <christy_johnsonhughes@fws.gov>
Subject: Re: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Good afternoon Ed,

The U.S. Fish and Wildlife Service has reviewed the proposed I-26 Widening from MM 145-172 project, in Orangeburg and Dorchester County, South Carolina (FWS Project Code: 2024-0138645). You have requested that the Service provide concurrence or comments regarding potential impacts to federally listed species in accordance with requirements set forth under section 7 of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq*. (ESA).

Your agency has made a determination of *may affect, but is not likely to adversely affect* for the Northern long-eared bat (*Myotis septentrionalis*). Based on the justification provided, the Service concurs with your determination. Please note that obligations under section 7 of the ESA should be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner, which was not considered in this assessment; or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

As you know, the tricolored bat (*Perimyotis subflavus*) is currently proposed for listing and does not have the full protection of a listed species under the ESA. The Service acknowledges SCDOT and FHWA commitment to re-initiate consultation, if potential project impacts (i.e., tree clearing; bridge or culvert maintenance or demolition) have not occurred prior to the effective date of a listing determination, if the species is warranted for listing. The seasonal timing of when trees are removed impacts the species in different ways particularly during their sensitive periods. To minimize or avoid unforeseen impacts in the year-round active range, the Service recommends the voluntary conservation measures of 1) avoiding activities affecting trees from

December 15th to February 15th (winter torpor) and May 1st to July 15th (pupping season); 2) culverts/bridges will be surveyed for evidence of bat use/presence prior to working on the culvert; 3) if bat evidence or bat sightings are unexpectedly made during structure maintenance or demolition, the contractor will stop work and the Service will be notified immediately. No work will resume at the structure location until discussions with the Service have concluded; and 4) avoid culvert, bridge, or other structure removal or modification during winter months (Dec. 15th - Feb. 15th) or pup season (May 1st - July 15th), when bats are present or assumed present. Listing updates for tricolored bat can be found here.

The Service recommends that you contact the South Carolina Department of Natural Resources regarding potential impacts to State protected species. This email will serve as our official response. Please let me know if you have any questions.

Thank you.

Sincerely,

Jessica R. Hinson, M.S.
Fish and Wildlife Biologist
SCDOT Liaison
U.S. Fish and Wildlife Service
South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
Email: jessica_hinson@fws.gov
Work Phone: 854-253-0441

South Carolina Ecological Services Field Office | U.S. Fish & Wildlife Service

---

From: Hinson, Jessica R <jessica_hinson@fws.gov>
Sent: Thursday, May 15, 2025 6:56 PM
To: Frierson, Edward, W. <FriersonEW@scdot.org>
Cc: Charleston Regulatory, FW4 <charleston_regulatory@fws.gov>; batsurveyreports@dnr.sc.gov <batsurveyreports@dnr.sc.gov>
Subject: Re: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Hello Ed,

I have reviewed the bridge/culvert assessment report for the proposed I-26 Widening from MM 145-172 project in Orangeburg and Dorchester County (FWS Project Code: 2024-0138645) and find it to be acceptable for presence of the proposed endangered tricolored bat (*Perimyotis subflavus*) utilizing the surveyed bridges and/or culverts. Please be aware that my approval of these survey results is not a section 7(a)(2) concurrence and does not authorize implementation of any part of the proposed action or remove the applicant from the permitting requirements that may be required by other State and federal agencies. Additional coordination with our office may be necessary. Please submit consultation requests through

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Please include my email accepting these results as an attachment when completing and submitting the project package.

Thank you. Please let me know if you have any further questions.

Sincerely,

Jessica R. Hinson, M.S.
Fish and Wildlife Biologist
SCDOT Liaison
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From: Hinson, Jessica R <jessica_hinson@fws.gov>
Sent: Monday, May 5, 2025 8:24 PM

To: Frierson, Edward, W. <FriersonEW@scdot.org>
Subject: Re: [EXTERNAL] Interstate 26 Widening from MM 145- MM 172 in Orangeburg and Dorchester Counties, SC USFWS Project Code 2024-0138645

Hi Ed,

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I hope you are doing well and having a great week so far!

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Hey Jessica,
Attached are the revised BE and inspection forms. We don’t have photos for ALL the bridges and culverts but most of them. If that is a necessity, we can get them for you.
Ed

Figure 1 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

SCDOT®
South Carolina Department of Transportation

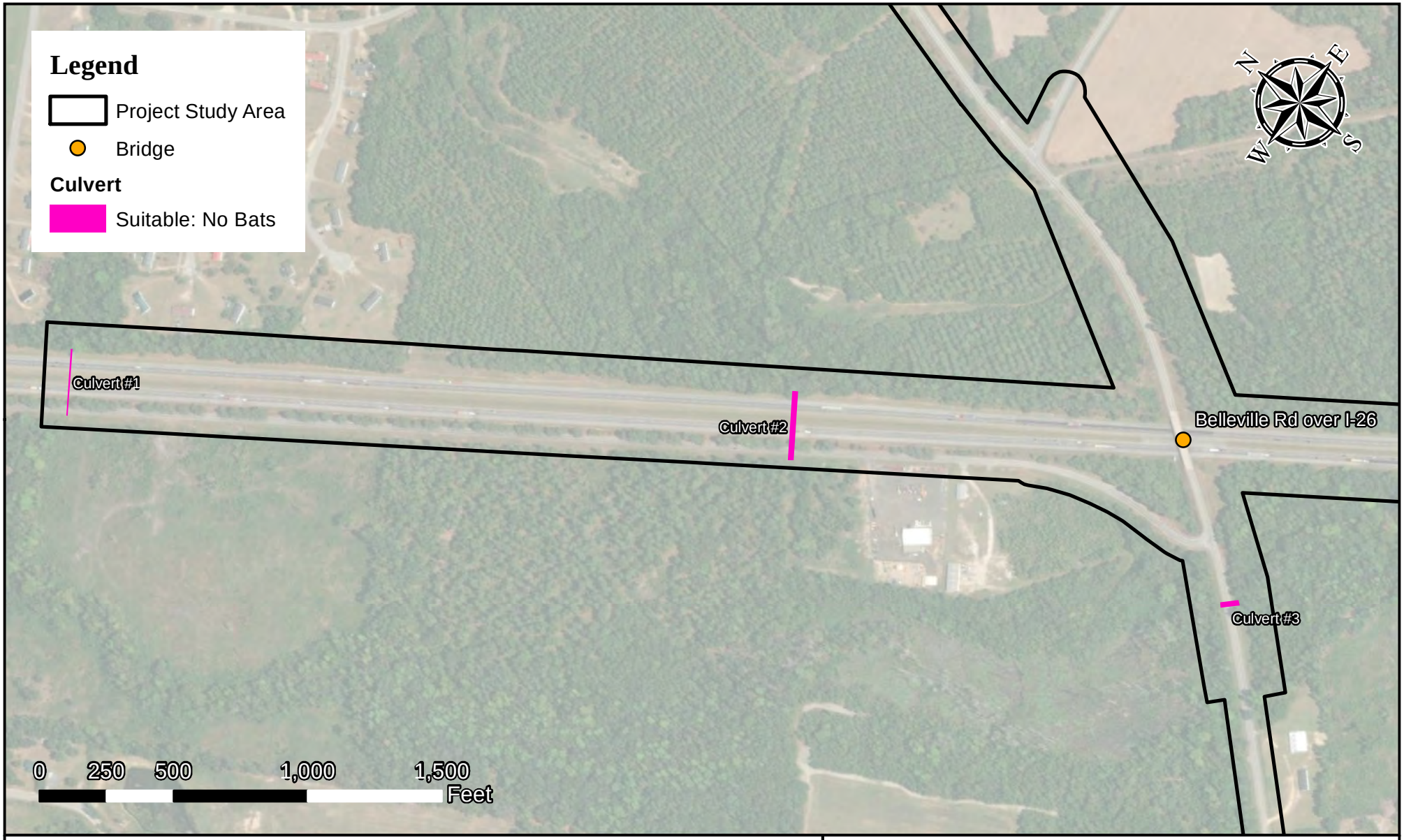

Figure 2 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

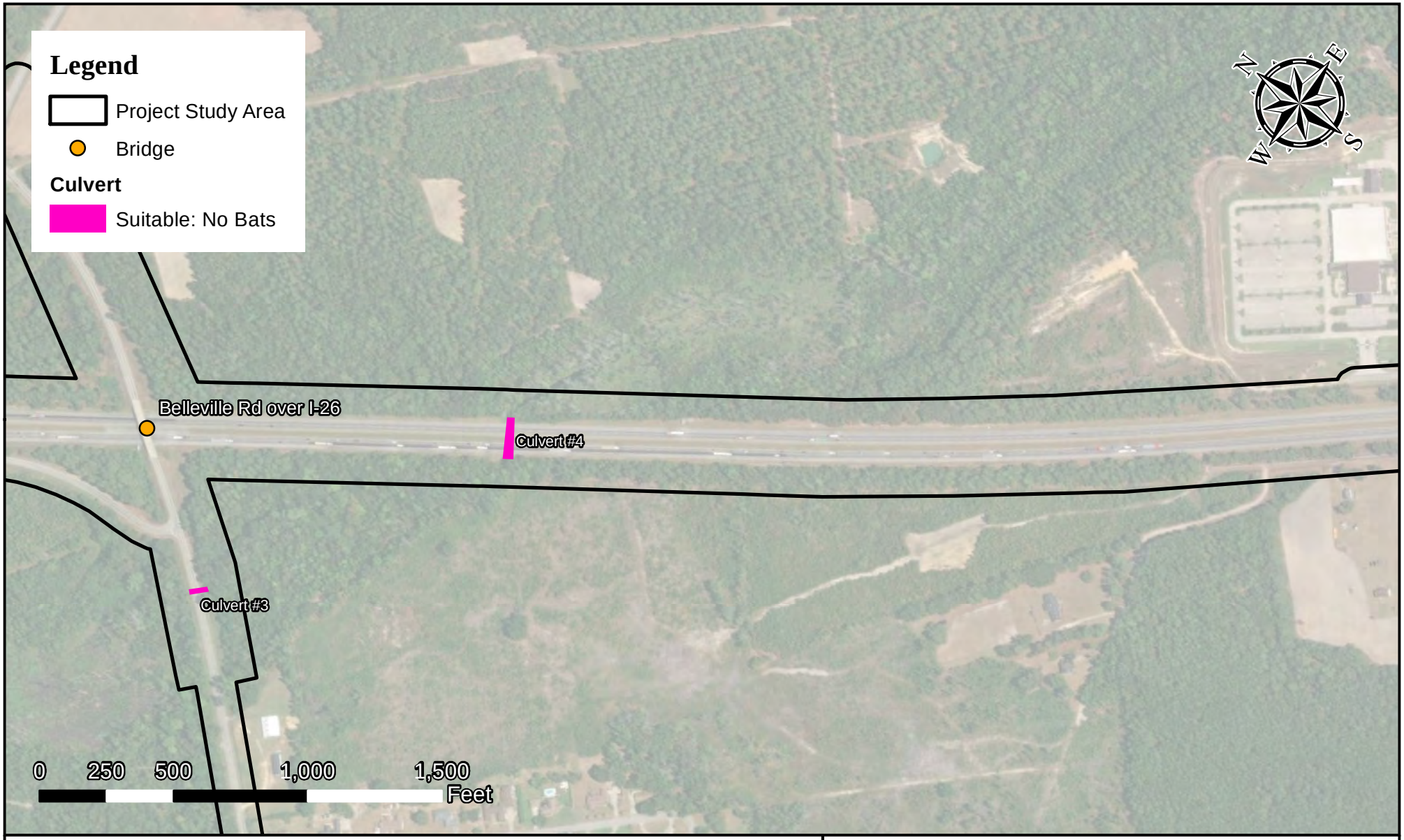

Figure 3 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

Figure 4 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

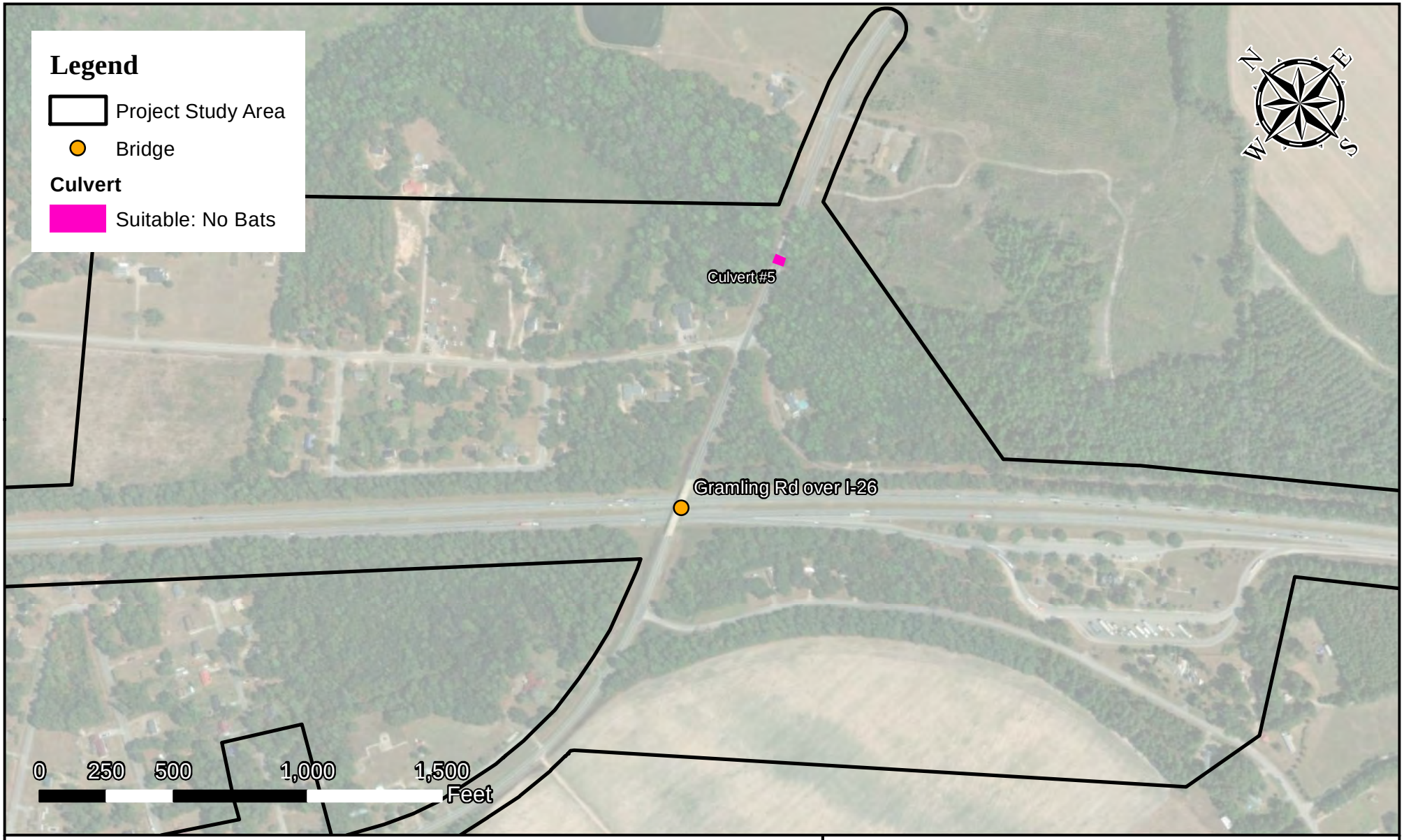

Figure 5 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

SCDOT®
South Carolina Department of Transportation

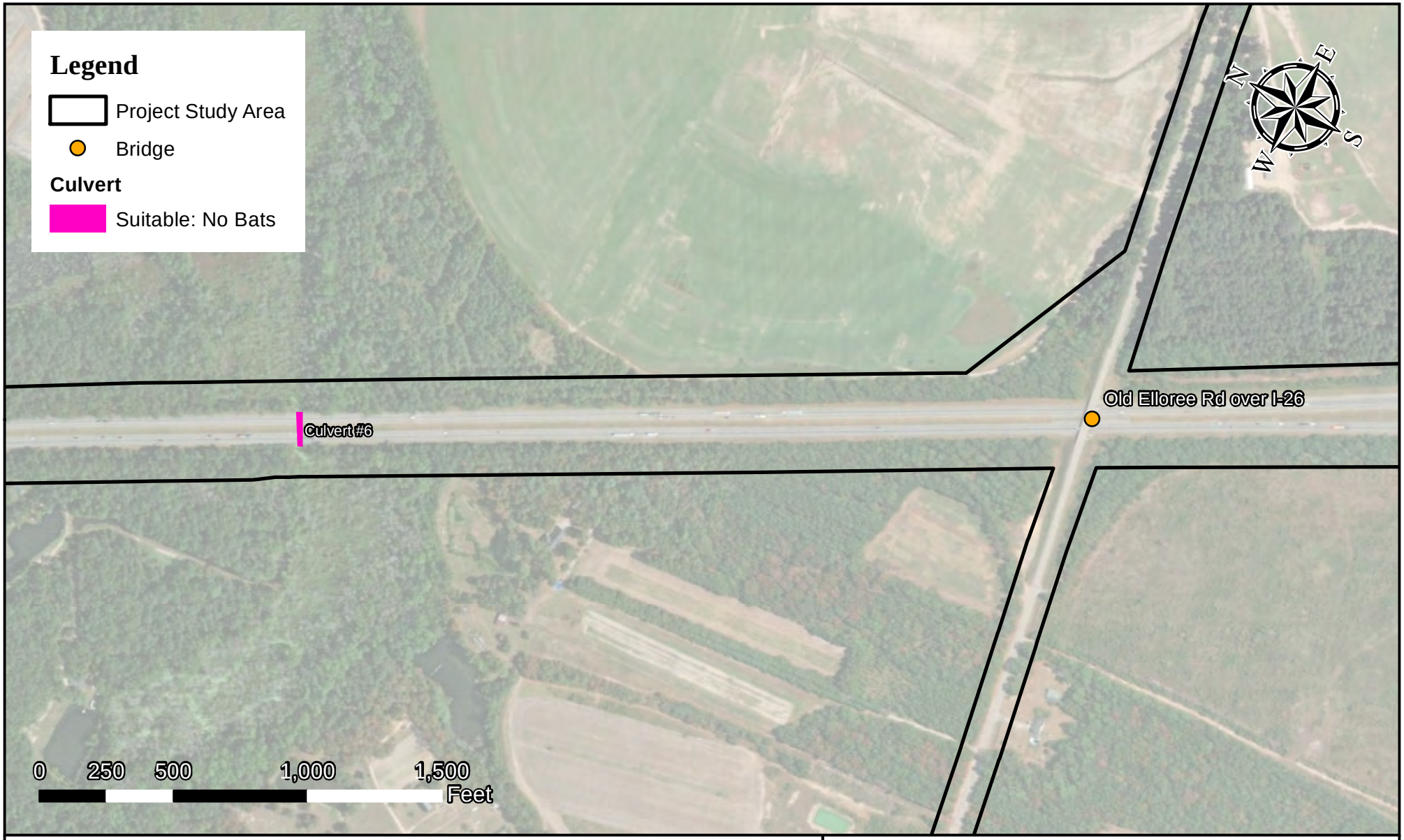

Figure 6 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

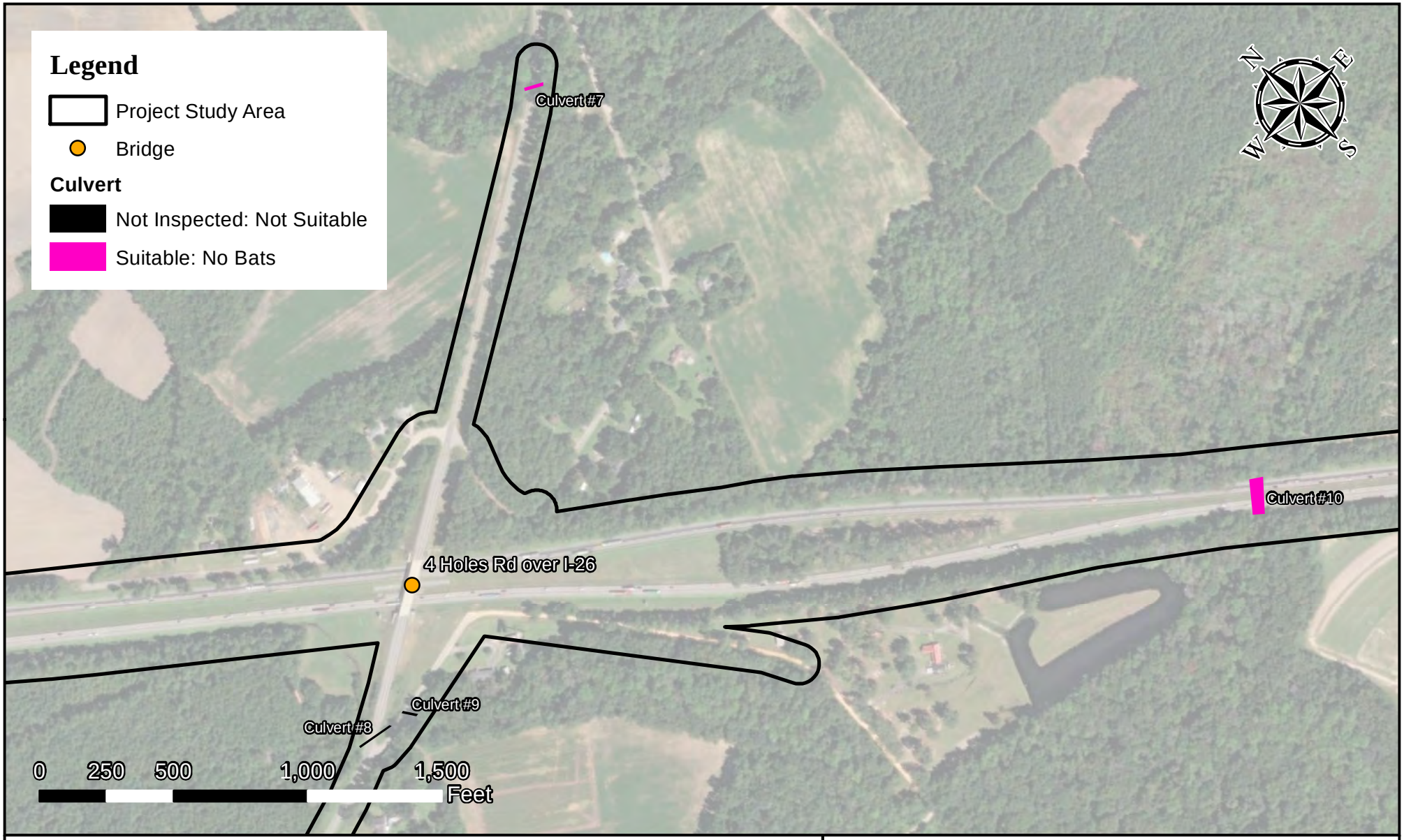

Figure 7 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

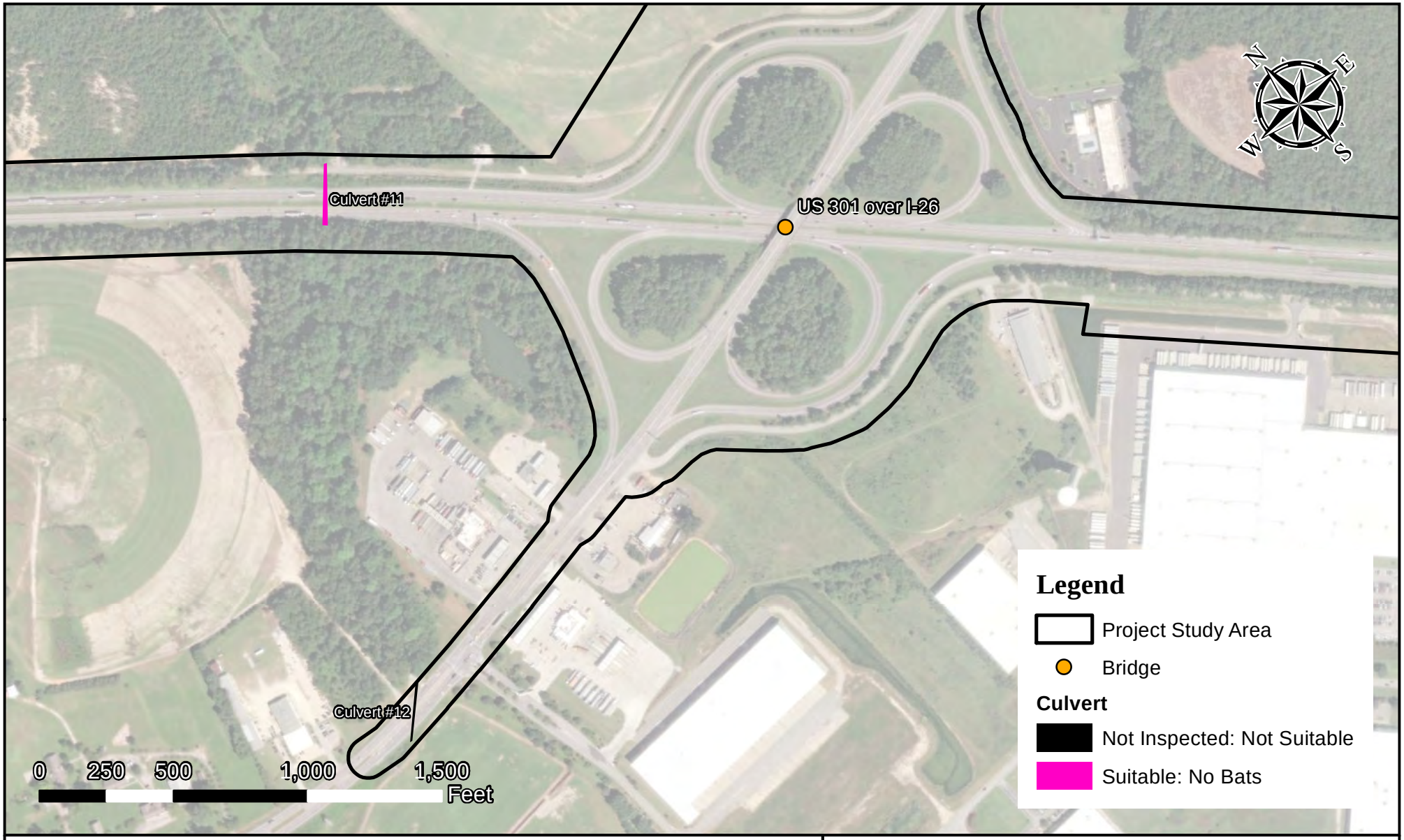

Figure 8 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

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South Carolina Department of Transportation

Figure 9 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

SCDOT®
South Carolina Department of Transportation

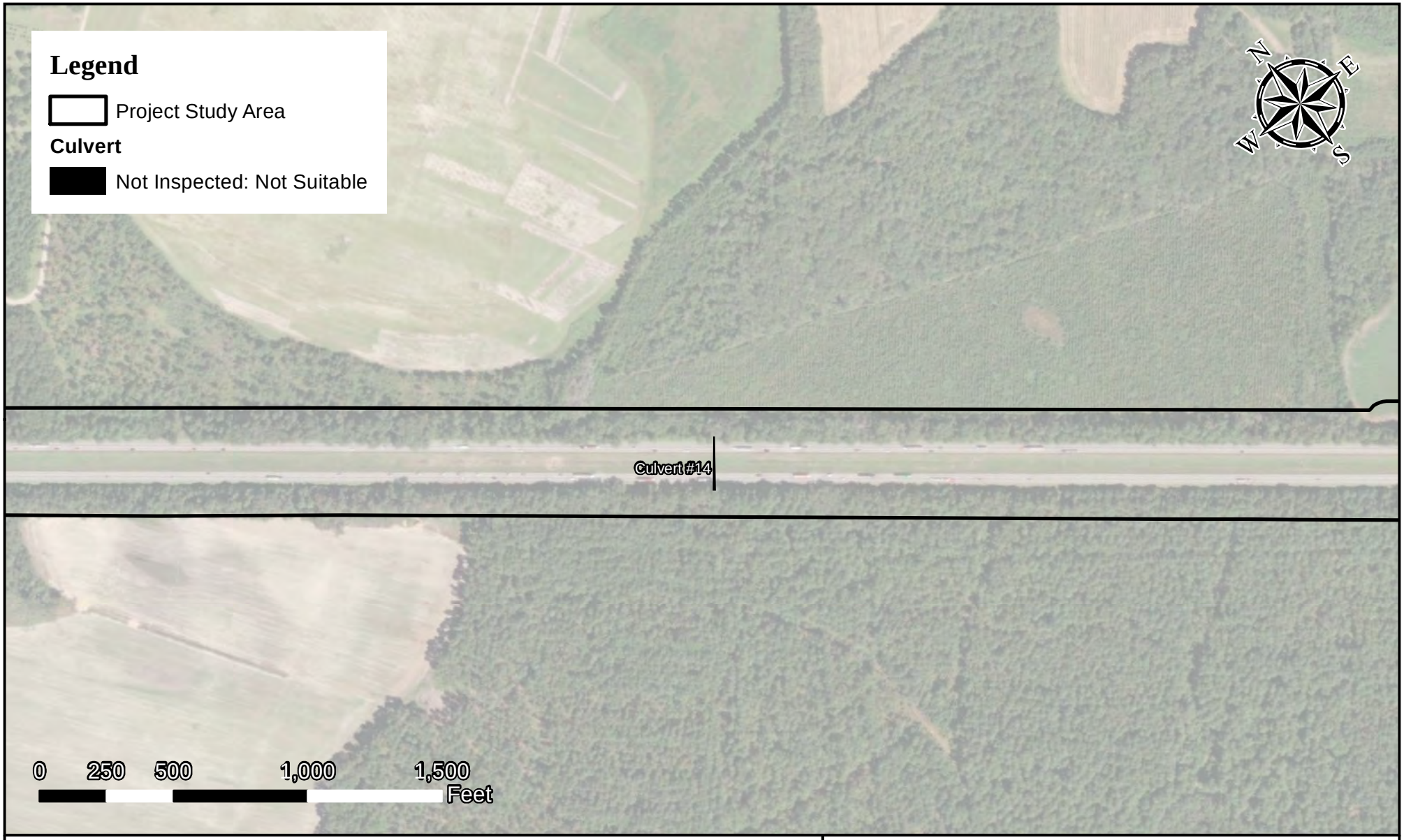

Figure 10 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

SCDOT®
South Carolina Department of Transportation

Figure 11 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

SCDOT®
South Carolina Department of Transportation

Figure 12 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

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South Carolina Department of Transportation

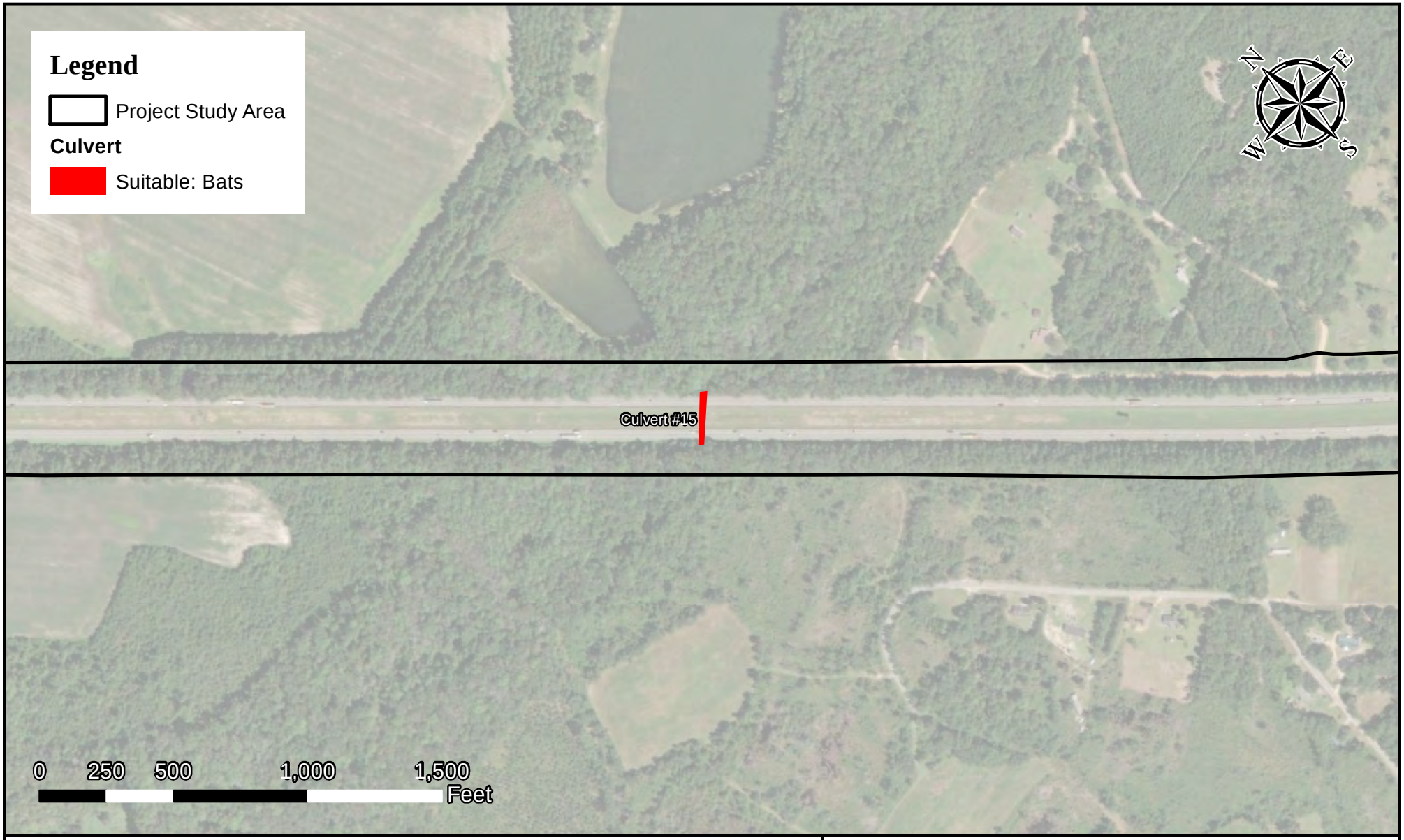

Figure 13 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

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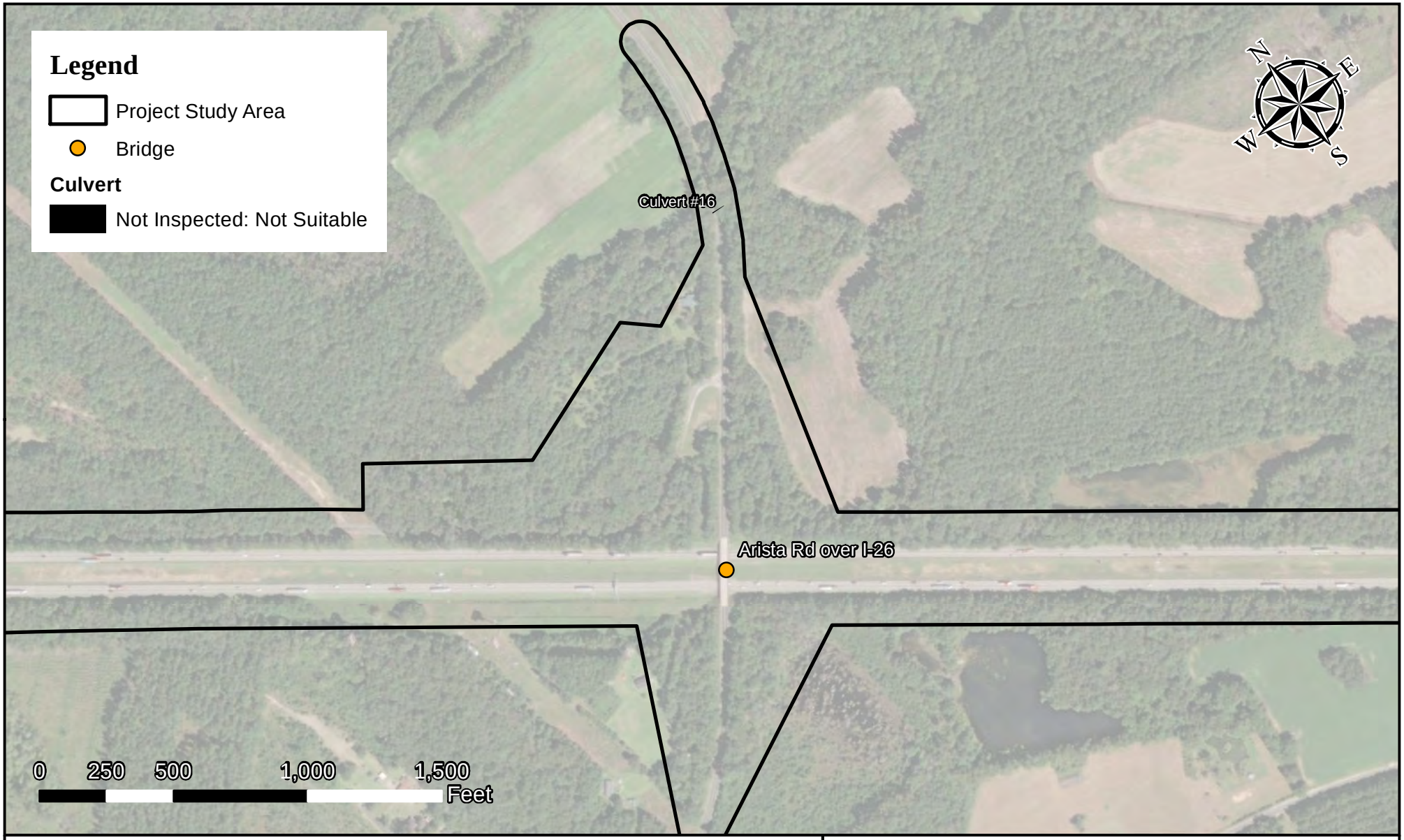

Figure 14 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

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South Carolina Department of Transportation

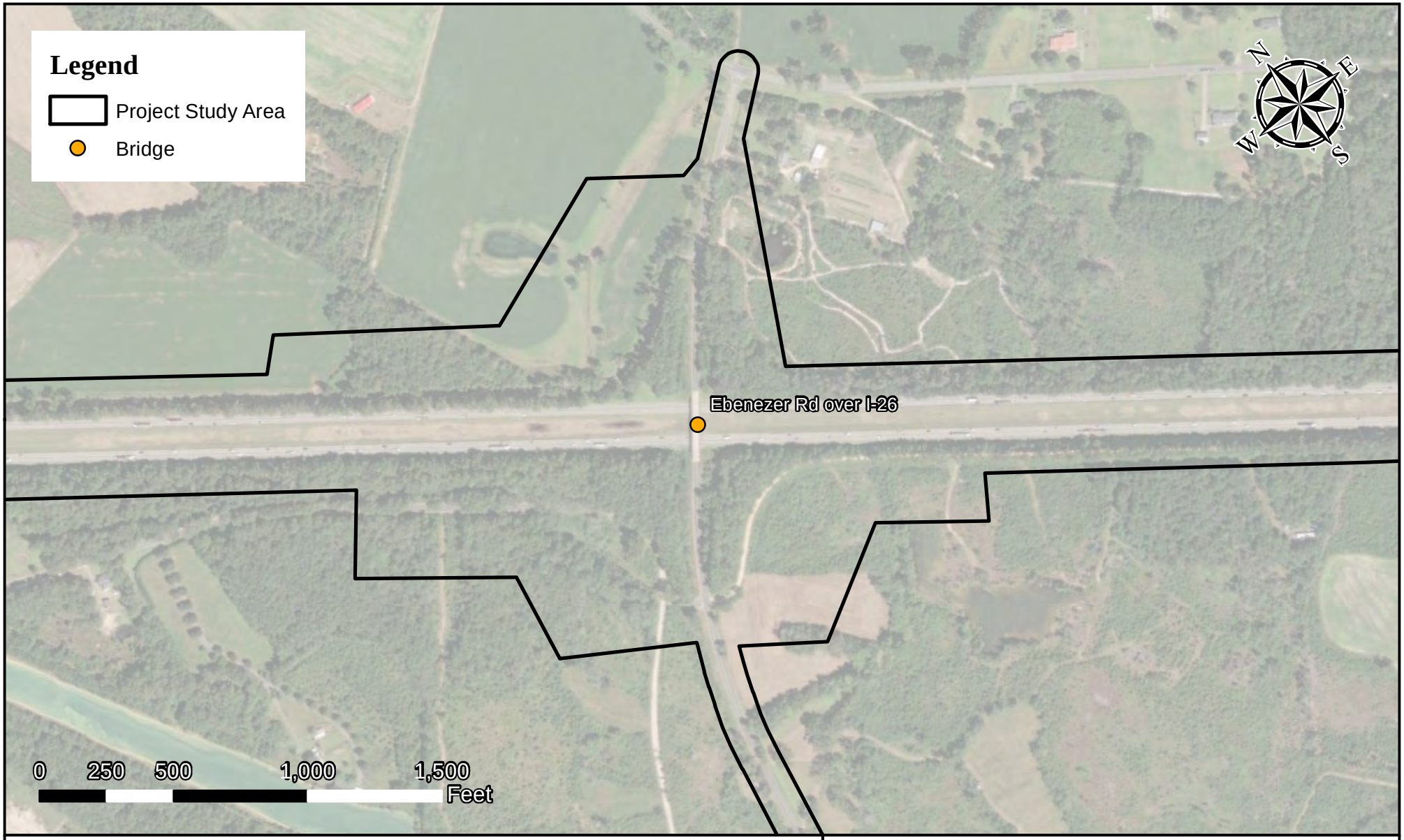

Figure 15 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

SCDOT®
South Carolina Department of Transportation

Figure 16 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

Figure 17 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

Figure 18 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

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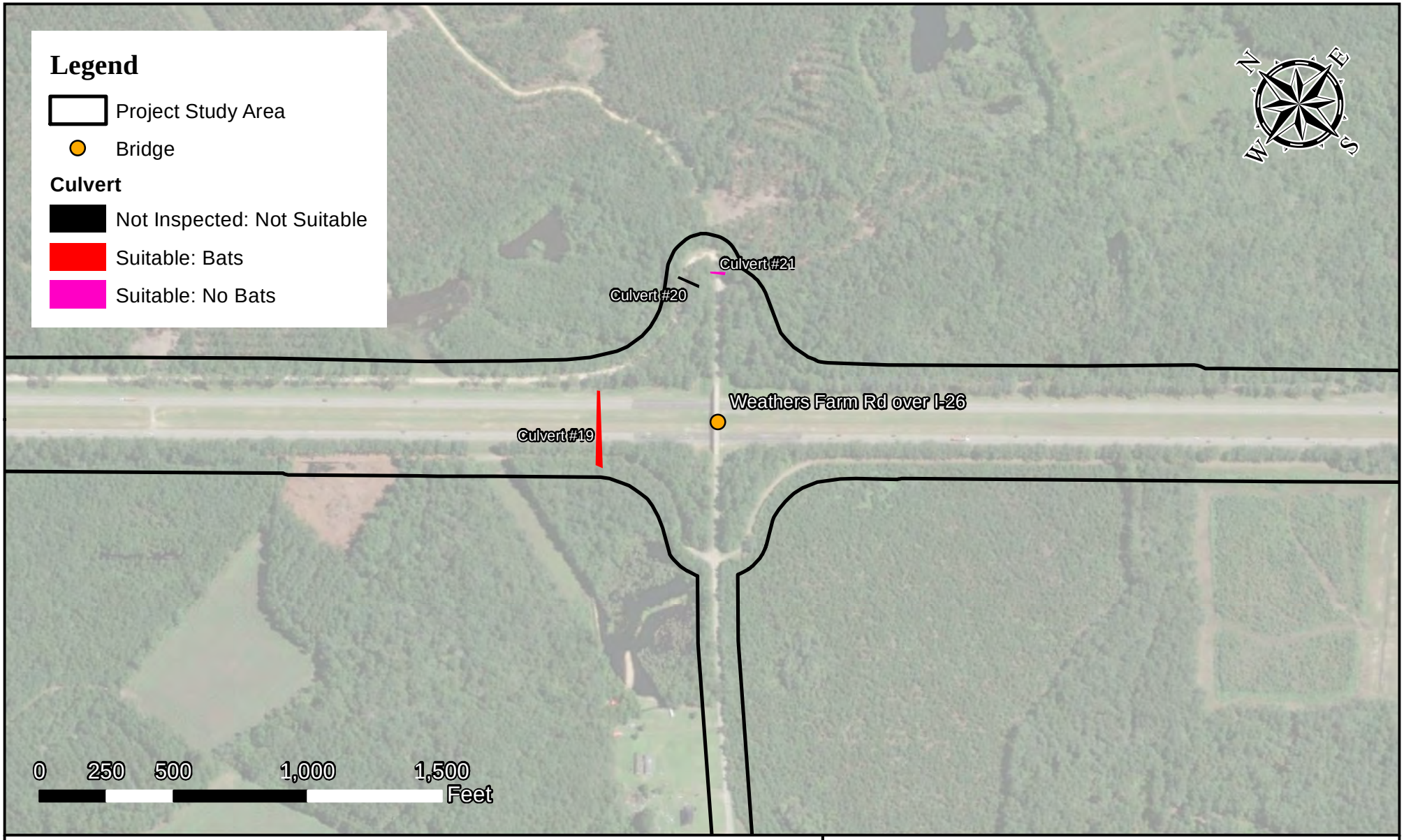


Figure 19 - Bat Structure Inspections

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,800 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: April, 2025

South Carolina Department of Transportation

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	DOT Proj No. or IPaC Code: P041967 & P042454 / 2024-0138645	Route/Facility Carried: Four Holes Rd over I-26	County: Orangeburg
Federal Structure ID: 3870005000200	Structure Coordinates: 33.470585, -80.746447	Structure Height (approx.): 17'6"	Structure Length: ~250'

Structure Type (check one)		Structure Material (check all that apply)		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☒ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

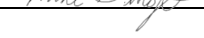
Culvert Type	*Other Structure*	*Culvert Material*	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		Assessment Notes	Evidence of Bats (include photos if present)	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Arista Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870069200100	**Structure Coordinates:** 33.387877, -80.634266	**Structure Height (approx.):** 16'1"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

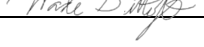
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☒ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Bellville Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870002900100	**Structure Coordinates:** 33.534102, -80.803802	**Structure Height (approx.):** 16'1"	**Structure Length:** ~225'

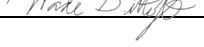
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Big Buck Blvd over I-26	**County:** Orangeburg
Federal Structure ID: 3870019600200	**Structure Coordinates:** 33.450361, -80.721065	**Structure Height (approx.):** 16’	**Structure Length:** ~230’

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

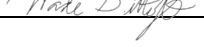
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Ebenezer Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870009200200	**Structure Coordinates:** 33.377747, -80.618489	**Structure Height (approx.):** 16'1"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

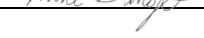
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☒ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Gramling Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870006500100	**Structure Coordinates:** 33.504597, -80.774179	**Structure Height (approx.):** 16'5"	**Structure Length:** ~230'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

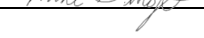
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Homestead Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870003600300	**Structure Coordinates:** 33.414, -80.667685	**Structure Height (approx.):** 16'2"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: Wade Biltoft


CLEARANCE
16 FT 2 IN

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26 E over Cameron Rd	**County:** Orangeburg
Federal Structure ID: 3810002620500	**Structure Coordinates:** 33.519497, -80.790878	**Structure Height (approx.):** 24'8"	**Structure Length:** ~275'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☒ Steel I-beam	☒ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☒ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

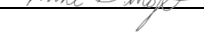
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26 E over Cow Castle Creek	**County:** Orangeburg
Federal Structure ID: 3810002620900	**Structure Coordinates:** 33.346495, -80.578084	**Structure Height (approx.):** 8’	**Structure Length:** ~250’

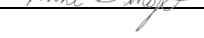
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes:
☐ Pipe/round		☐ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☒ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26 W over Cameron Rd	**County:** Orangeburg
Federal Structure ID: 3810002640500	**Structure Coordinates:** 33.51958, -80.790698	**Structure Height (approx.):** 24'8"	**Structure Length:** ~275'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☒ Steel I-beam	☒ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☒ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

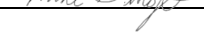
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26 W over Cow Castle Creek	**County:** Orangeburg
Federal Structure ID: 3810002640900	**Structure Coordinates:** 33.346709, -80.577801	**Structure Height (approx.):** 8’	**Structure Length:** ~250’

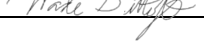
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☒ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Log Cabin Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870130300100	**Structure Coordinates:** 33.426839, -80.68655	**Structure Height (approx.):** 16’	**Structure Length:** ~180’

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

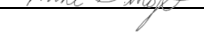
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Old Elloree Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870047000100	**Structure Coordinates:** 33.486125, -80.759922	**Structure Height (approx.):** 16'5"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

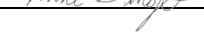
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** US 301 over I-26	**County:** Orangeburg
Federal Structure ID: 3820030100600	**Structure Coordinates:** 33.458139, -80.730018	**Structure Height (approx.):** 16'1"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

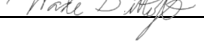
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☒ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☐ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Vance Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3840021000300	**Structure Coordinates:** 33.359439, -80.592062	**Structure Height (approx.):** 16'2"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

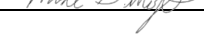
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☒ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Weathers Farm Rd over I-26	**County:** Orangeburg
Federal Structure ID: 18900337001	**Structure Coordinates:** 33.304451, -80.534412	**Structure Height (approx.):** 16'0"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

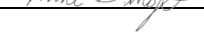
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☒ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Whetsell Pond Rd over I-26	**County:** Orangeburg
Federal Structure ID: 3870130200100	**Structure Coordinates:** 33.25147, -80.554421	**Structure Height (approx.):** 16'0"	**Structure Length:** ~250'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☒ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☒ Concrete
☐ Flat Slab	☐ Steel I-beam	☒ Concrete	☒ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal	Notes: Click or tap here to enter text.
☐ Pipe/round		☐ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☒ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between concrete end walls and the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Crack between concrete railings on top of the bridge deck	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Vertical surfaces on concrete I-beams	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Spaces between walls, ceiling joists	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All guiderails	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	All expansion joints	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: Wade Biltoft

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Trib to Little Bull Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 1	**Structure Coordinates:** 33.543387, -80.811828	**Structure Height (approx.):** 3'	**Structure Length:** ~250'

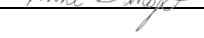
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable: no bats. Conveys a stream.
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Trib to Little Bull Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 2	**Structure Coordinates:** 33.537203, -80.806911	**Structure Height (approx.):** 6x3'	**Structure Length:** ~250'

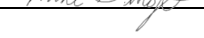
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable: no bats. Conveys a stream.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Belleville Rd/Little Bull Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 3	**Structure Coordinates:** 33.532635, -80.805012	**Structure Height (approx.):** Double 6x6'	**Structure Length:** ~75'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

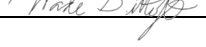
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal	Notes: Suitable: no bats. Little Bull Swamp. Double 6x6 box cvts.
☐ Pipe/round		☒ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Little Bull Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 4	**Structure Coordinates:** 33.530929, -80.801560	**Structure Height (approx.):** Triple 6x8'	**Structure Length:** ~150'

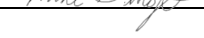
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable: no bats. Little Bull Swamp. Triple 6x8 box cvts.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Gramling Rd/Little Bull Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 5	**Structure Coordinates:** 33.505535, -80.771128	**Structure Height (approx.):** Triple 6x8'	**Structure Length:** ~130'

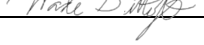
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable: no bats. Little Bull Swamp near Gramling Swamp. Triple 6x8 box cvts.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Whitford Stage Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 6	**Structure Coordinates:** 33.493248, -80.764609	**Structure Height (approx.):** Triple 6x8'	**Structure Length:** ~130'

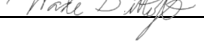
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable: no bats. Conveys Whitford Stage Swamp to Little Bull Swamp. Triple 6x8 box cvts.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Four Holes Rd/Trib to Middle Pen Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 7	**Structure Coordinates:** 33.473178, -80.740981	**Structure Height (approx.):** Double 4'	**Structure Length:** ~70'

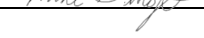
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Double pipe cvts. Suitable, no bats. Conveys a stream.
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Four Holes Rd/Trib to Middle Pen Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 8	**Structure Coordinates:** 33.469818, -80.748130	**Structure Height (approx.):** 3'	**Structure Length:** ~50'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Double pipe cvts, not suitable. Conveys a stream. Culvert overgrown around outlet
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☐	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present Unable to assess	Visual – live # 0 dead # 0 ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Concrete surfaces (open roosting on concrete)	☐ Not present Unable to assess	Visual – live # 0 dead # 0 ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All guiderails	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor

Name: Wade Biltoft, PWS	Signature: Wade Biltoft

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Roquemore Dr/Trib to Middle Pen Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 9	**Structure Coordinates:** 33.469727, -80.747629	**Structure Height (approx.):** 3'	**Structure Length:** ~50'

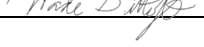
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Double pipe cvts, not suitable. Conveys a stream. Culvert overgrown around outlet
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☐	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present Unable to assess	Visual – live # 0 dead # 0 ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Concrete surfaces (open roosting on concrete)	☐ Not present Unable to assess	Visual – live # 0 dead # 0 ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All guiderails	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Middle Pen Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 10	**Structure Coordinates:** 33.464904, -80.738609	**Structure Height (approx.):** Triple 6'x8'	**Structure Length:** ~130'

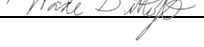
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Triple box cvts. Suitable, no bats. Conveys a Middle Pen Swamp.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Trib to Middle Pen Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 11	**Structure Coordinates:** 33.461532, -80.733981	**Structure Height (approx.):** 6x8'	**Structure Length:** ~230'

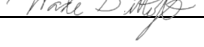
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Single box cvt. Suitable, no bats. Conveys a stream
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	DOT Proj No. or IPaC Code: P041967 & P042454 / 2024-0138645	Route/Facility Carried: US 301/Trib to Middle Pen Swamp	County: Orangeburg
Federal Structure ID: N/A; Culvert 12	Structure Coordinates: 33.457046, -80.737419	Structure Height (approx.): 3’	Structure Length: ~230’

Structure Type (check one)		Structure Material (check all that apply)		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Not inspected, not suitable. Conveys a stream.
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		Assessment Notes	Evidence of Bats (include photos if present)	
☐	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present Unable to assess	Visual – live # ## dead # 0 ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Concrete surfaces (open roosting on concrete)	☐ Not present Unable to assess	Visual – live # ## dead # 0 ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All guiderails	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Trib to Middle Pen Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 13	**Structure Coordinates:** 33.446136, -80.714851	**Structure Height (approx.):** Double 8'x10'	**Structure Length:** ~230'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Double box culvert. Suitable, no bats. Conveys a wetland
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

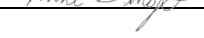
Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS

Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Wetland to Indian Camp Branch	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 14	**Structure Coordinates:** 33.436887, -80.701319	**Structure Height (approx.):** 3'	**Structure Length:** ~200'

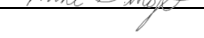
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Not inspected, not suitable. Conveys a wetland.
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☐	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present Unable to be inspected. Flooded and opening is restricted	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All guiderails	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Mill Branch	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 15	**Structure Coordinates:** 33.401101, -80.652230	**Structure Height (approx.):** Triple 6x6'	**Structure Length:** ~200'

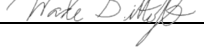
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☐ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Bats found! Triple 6x6' cvts.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

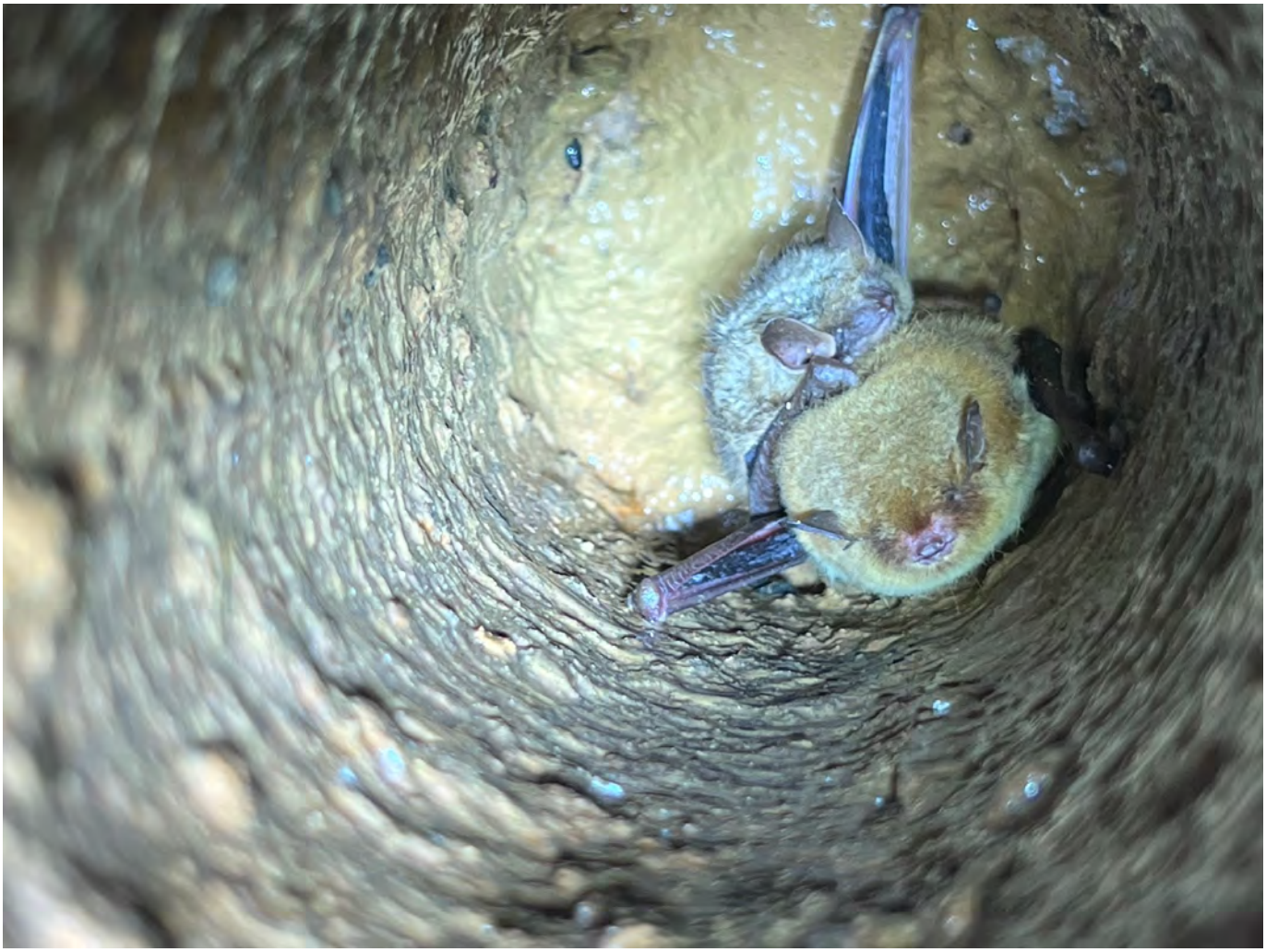
Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 2 dead # 0	☒ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: *Corynorhinus rafinesquii*, *Perimyotis subflavus*	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # 18 dead # 0	☒ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: *Perimyotis subflavus* (16), *Myotis austroriparius* (2)	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 



Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Arista Rd/Trib to Four Hole Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 16	**Structure Coordinates:** 33.3908791, -80.6316658	**Structure Height (approx.):** 3'	**Structure Length:** ~50'

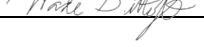
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: No bats, double 3' cvts convey stream
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live ### dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/03/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Vance Rd	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 17	**Structure Coordinates:** 33.3602013, -80.5867860	**Structure Height (approx.):** 3’	**Structure Length:** ~70’

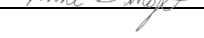
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☐ No ☐ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Conveys a wetland, not inspected
☐ Pipe/round		☐ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☐ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☒ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☐	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present Not able to be assessed; flooded	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All guiderails	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Trib to Four Hole Swamp	**County:** Orangeburg
Federal Structure ID: N/A; Culvert 18	**Structure Coordinates:** 33.331072, -80.560926	**Structure Height (approx.):** 6x6'	**Structure Length:** ~370'

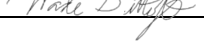
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable, bats found! Conveys a stream
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 1 dead # 0	☒ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: *Perimyotis subflavus*	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 1 dead # 0	☒ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: *Corynorhinus rafinesquii*	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26/Trib to Four Hole Swamp	**County:** Dorchester
Federal Structure ID: N/A; Culvert 19	**Structure Coordinates:** 33.305381, -80.535360	**Structure Height (approx.):** 6x6'	**Structure Length:** ~280'

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***

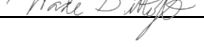
Culvert Type	***Other Structure***	***Culvert Material***	☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal	Notes: Suitable, bats found! Conveys a stream
☐ Pipe/round		☒ Concrete	
☐ Other: Click to enter text.		☐ Plastic	
		☐ Stones/Masonry	
		☐ Other: Click to enter text.	

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 1 dead # 0	☒ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: *Corynorhinus rafinesquii*	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** Bluff Rd/Trib to Four Hole Swamp	**County:** Dorchester
Federal Structure ID: N/A; Culvert 20	**Structure Coordinates:** 33.305620, -80.533321	**Structure Height (approx.):** 3’	**Structure Length:** ~90’

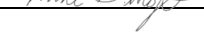
Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☒ Unknown
☐ Box	☐ Click to enter text.	☐ Metal		Notes: Not suitable: no bats. Conveys wetland to stream.
☒ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

	Area (check if assessed)	**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☐	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present Unable to inspect; flooded	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All guiderails	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ## ☐ Guano ☐ Staining Species: Click to enter text.	☐ Photos ☐ Audible ☐ Odor

Name: Wade Biltoft, PWS	Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	DOT Proj No. or IPaC Code: P041967 & P042454 / 2024-0138645	Route/Facility Carried: Weathers Farm Rd/Trib to Four Hole Swamp	County: Dorchester
Federal Structure ID: N/A; Culvert 21	Structure Coordinates: 33.305413, -80.533015	Structure Height (approx.): 6x6'	Structure Length: ~55'

Structure Type (check one)		Structure Material (check all that apply)		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☐ No ☒ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Suitable, no bats. Conveys a stream.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

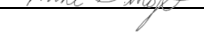
Crossings Traversed (check all that apply)		Surrounding Habitat (check all that apply)	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☐ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		Assessment Notes	Evidence of Bats (include photos if present)	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Weep holes, scupper drains, and inlets/pipes	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS

Signature: 

Bridge/Culvert Bat Assessment Form

Date & Time: 02/05/2025	**DOT Proj No. or IPaC Code:** P041967 & P042454 / 2024-0138645	**Route/Facility Carried:** I-26	**County:** Orangeburg
Federal Structure ID: N/A, Culvert #22	**Structure Coordinates:** 33.446179, -80.714863	**Structure Height (approx.):** 6’	**Structure Length:** ~150’

Structure Type (check one)		**Structure Material (check all that apply)**		
Bridge Construction Style		***Deck Material***	***Beam Material***	***End/Back Wall Material***
☐ Cast-in-place	☐ Pre-stressed Girder	☐ Metal	☐ None	☐ Concrete
☐ Flat Slab	☐ Steel I-beam	☐ Concrete	☐ Concrete	☐ Timber
☐ Truss	☐ Covered	☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Parallel Box Beam	☐ Other: Click to enter text.	☐ Open Grid	☐ Timber	☐ Other: enter text.
		☐ Other: text.	☐ Other: text.	***Creosote Evidence***
Culvert Type	***Other Structure***	***Culvert Material***		☐ Yes ☒ No ☐ Unknown
☒ Box	☐ Click to enter text.	☐ Metal		Notes: Click or tap here to enter text.
☐ Pipe/round		☒ Concrete		
☐ Other: Click to enter text.		☐ Plastic		
		☐ Stones/Masonry		
		☐ Other: Click to enter text.		

Crossings Traversed (check all that apply)		**Surrounding Habitat (check all that apply)**	
☐ Bare ground	☐ Open vegetation	☐ Agricultural	☐ Grassland
☐ Rip-rap	☐ Closed vegetation	☐ Commercial	☐ Ranching
☒ Flowing water	☐ Railroad	☐ Residential-urban	☐ Riparian/wetland
☐ Standing water	☒ Road/Trail – Type: Click to enter text.	☐ Residential-rural	☐ Mixed use
☐ Seasonal water	☐ Other: enter text.	☒ Woodland/forested	☐ Other: enter text.

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the “not present” box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)		**Assessment Notes**	**Evidence of Bats (include photos if present)**	
☒	All crevices and cracks: **Bridges/culverts**: rough surfaces or imperfections in concrete **Other structures**: soffits, rafters, attic areas	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Concrete surfaces (open roosting on concrete)	☐ Not present	Visual – live # 0 dead # 0	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between concrete end walls and the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Crack between concrete railings on top of the bridge deck	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Vertical surfaces on concrete I-beams	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	Spaces between walls, ceiling joists	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☒	Weep holes, scupper drains, and inlets/pipes	☐ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All guiderails	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	
☐	All expansion joints	☒ Not present	Visual – live # ## dead # ##	☐ Photos
			☐ Guano	☐ Audible
			☐ Staining	☐ Odor
			Species: Click to enter text.	

Name: Wade Biltoft, PWS	Signature:

Bridge/Culvert Bat Assessment Form

Surveyor Name:

Training Certifications:

Bridge/Culvert Bat Assessment Form

Surveyor Name: Wade Biltoft, PWS

Training Certifications:

On-the-job training with Mary Frazer (Federal Fish and Wildlife Permit (endangered bats), TE 54578B-2)

2019-Present

USFWS Virtual Bat and Transportation Structures Training

2022 & 2025

Bat Conservation & Management - Bat Acoustic Survey Training

2023

South Carolina
Department of Transportation

September 25, 2025

Ms. Jessica Hinson
USFWS South Carolina Ecological Services Field Office
SCDOT Liaison
176 Croghan Spur Road, Suite 200
Charleston, SC 29407
jessica_hinson@fws.gov

Re: Interstate 26 (I-26) Improvements Project MM 145-172, Orangeburg & Dorchester Counties, SCDOT PIN: P041967 & P042454; USFWS Project Code 2025-0137140 & 2024-0138645

Dear Ms. Hinson:

The South Carolina Department of Transportation (SCDOT) submitted a Biological Evaluation for the above-referenced project on May 5, 2025, and your office concurred with the evaluation findings regarding Northern long-eared bat (*Myotis septentrionalis*) on May 19, 2025. Since that time, the project study area (PSA) along I-26 has been expanded to include additional areas associated with the Rest Areas between Exits 149 and 154, and new right of way acquisition. Figures depicting the original PSA and the new PSA are attached for reference.

The revised PSA adds approximately 158 acres, including 43 acres of wetlands, 7 acres of open water (ponds), and 1423 linear feet of streams (1 acres). A field visit of these additional areas was conducted on August 13, 2025, and determined that these areas are predominantly composed of maintained roadway, landscaped areas, and pine forest habitat. One wetland, two ponds, three streams, and two jurisdictional ditches were extended or added in these areas (see attached Figures 5D and 5E). The expanded areas did not include any roadway structures or culverts.

During the original biological evaluation, it was determined that the tricolored bat would have a "May Affect" determination, since individuals were found within culverts in the project study area. Recently, northern long-eared bats were detected during acoustic surveys on an immediately adjacent project along I-26. USFWS recommended a reevaluation of the Determination Key in IPaC, and a determination of "May Affect" was received for both species. The Biological Evaluation will be updated to reflect this change.

Sincerely,

Ed Frierson
NEPA Coordinator for Midlands Region
South Carolina Department of Transportation

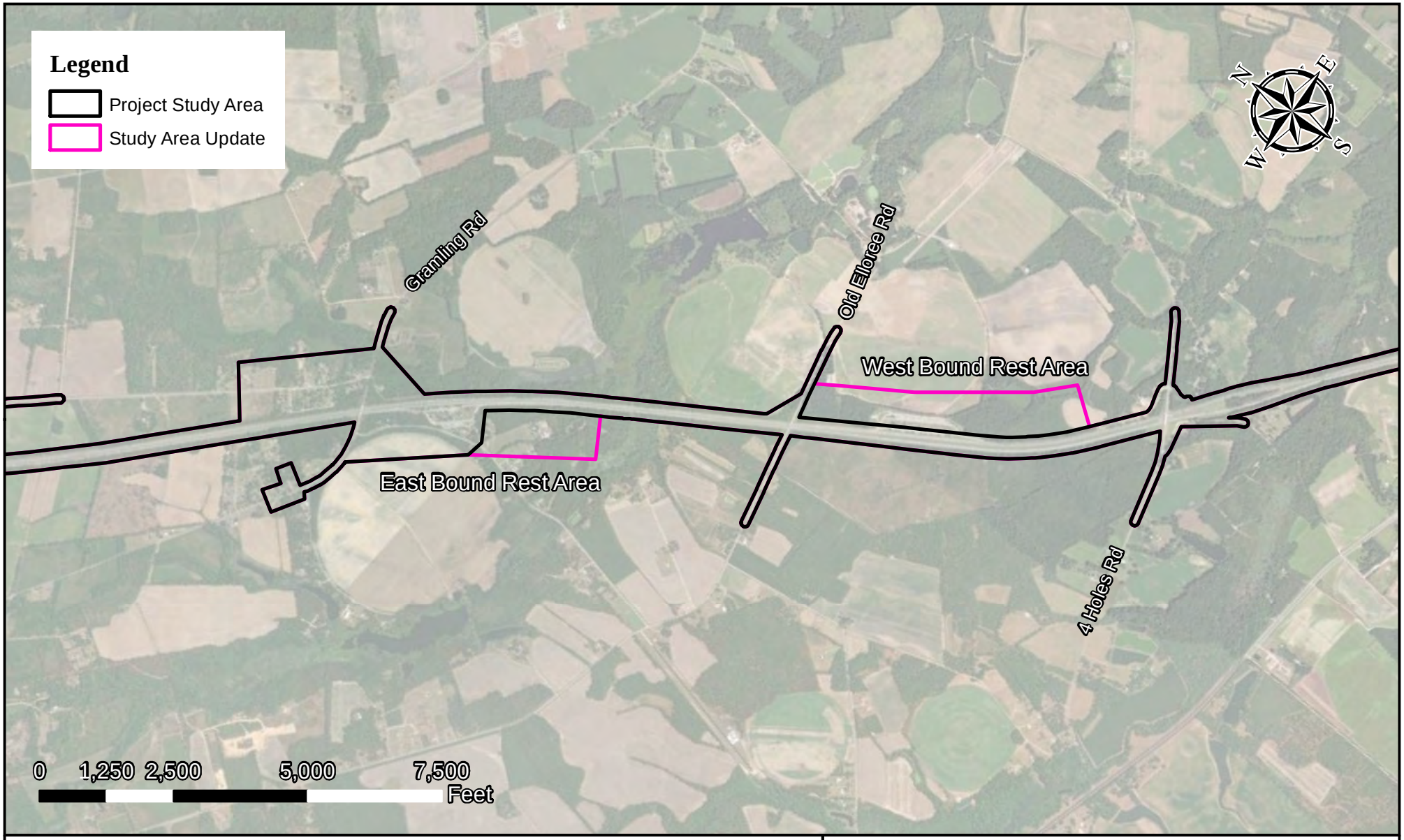


Figure 1 - Study Area Update

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,930.77 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: August, 2025

South Carolina Department of Transportation

Figure 1A - Aquatic Resources Map

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

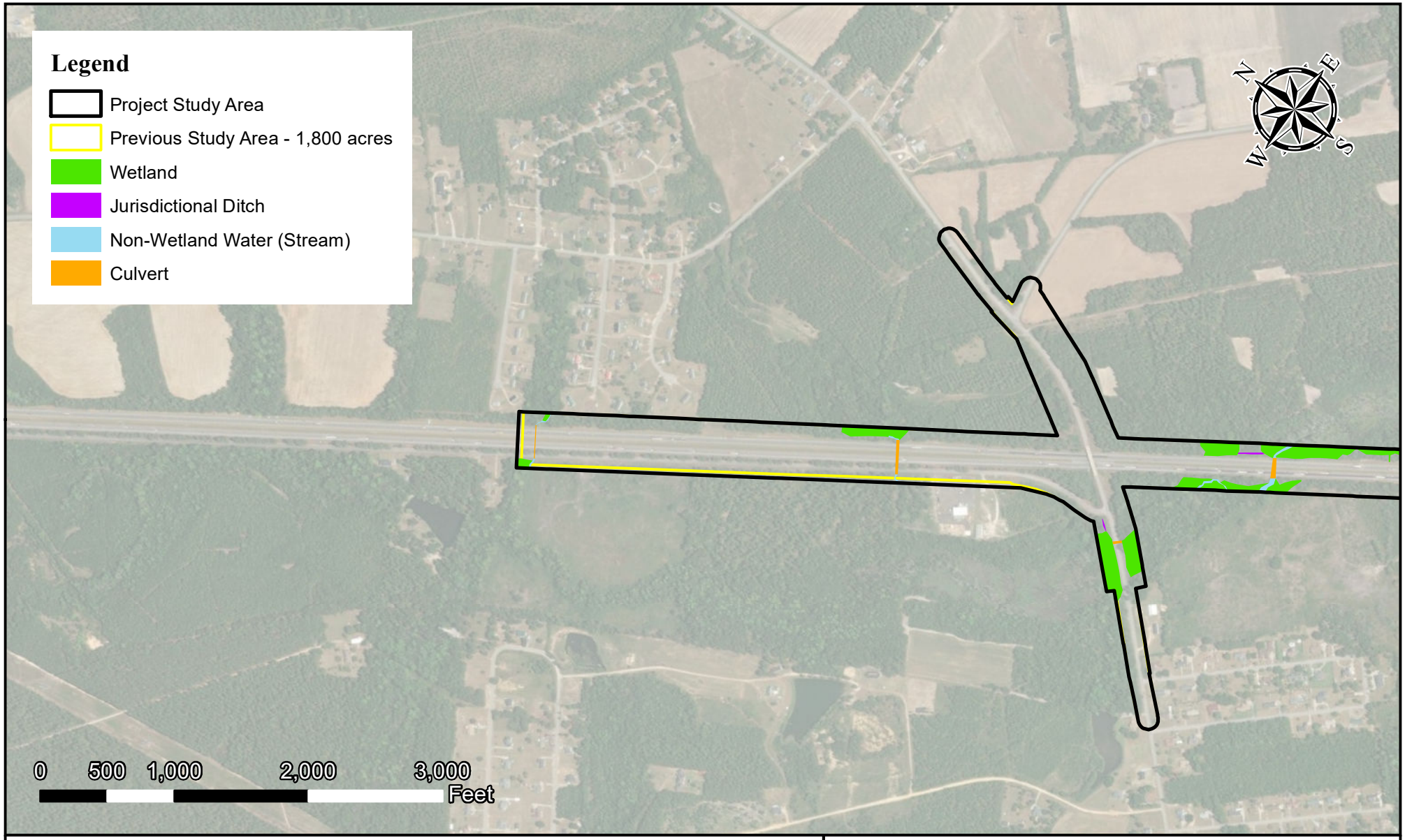


Figure 1B - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

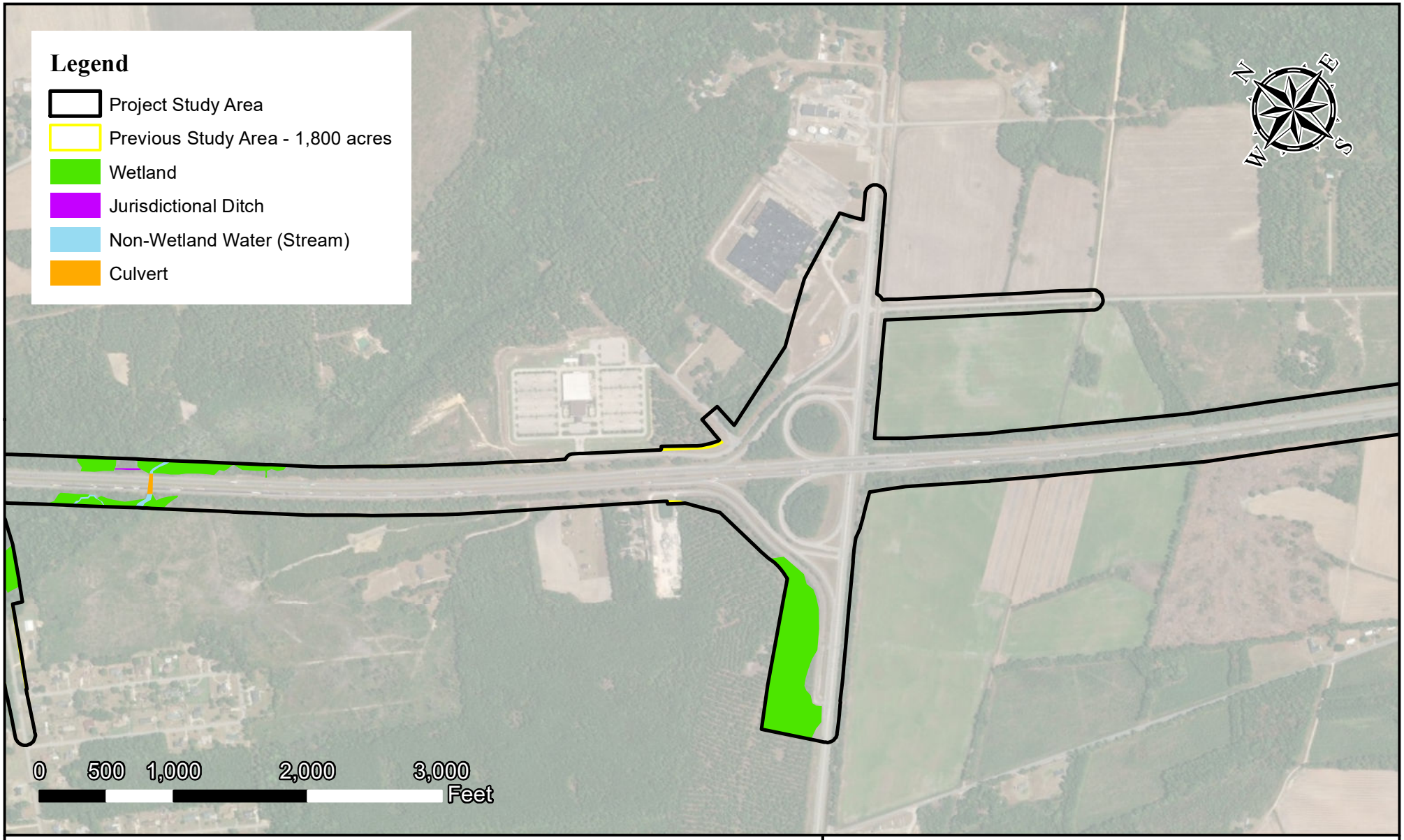


Figure 1C - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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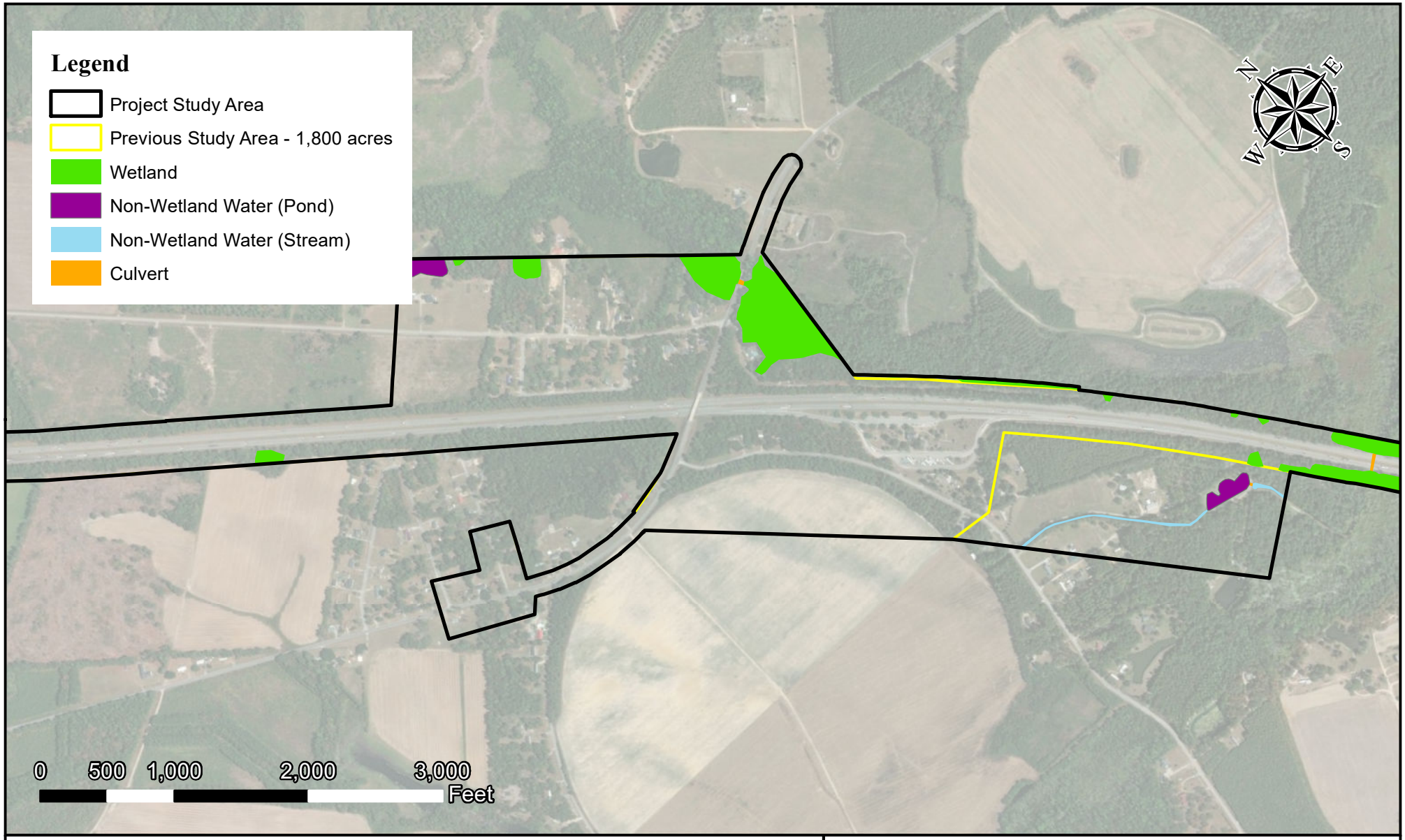

Figure 1D - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

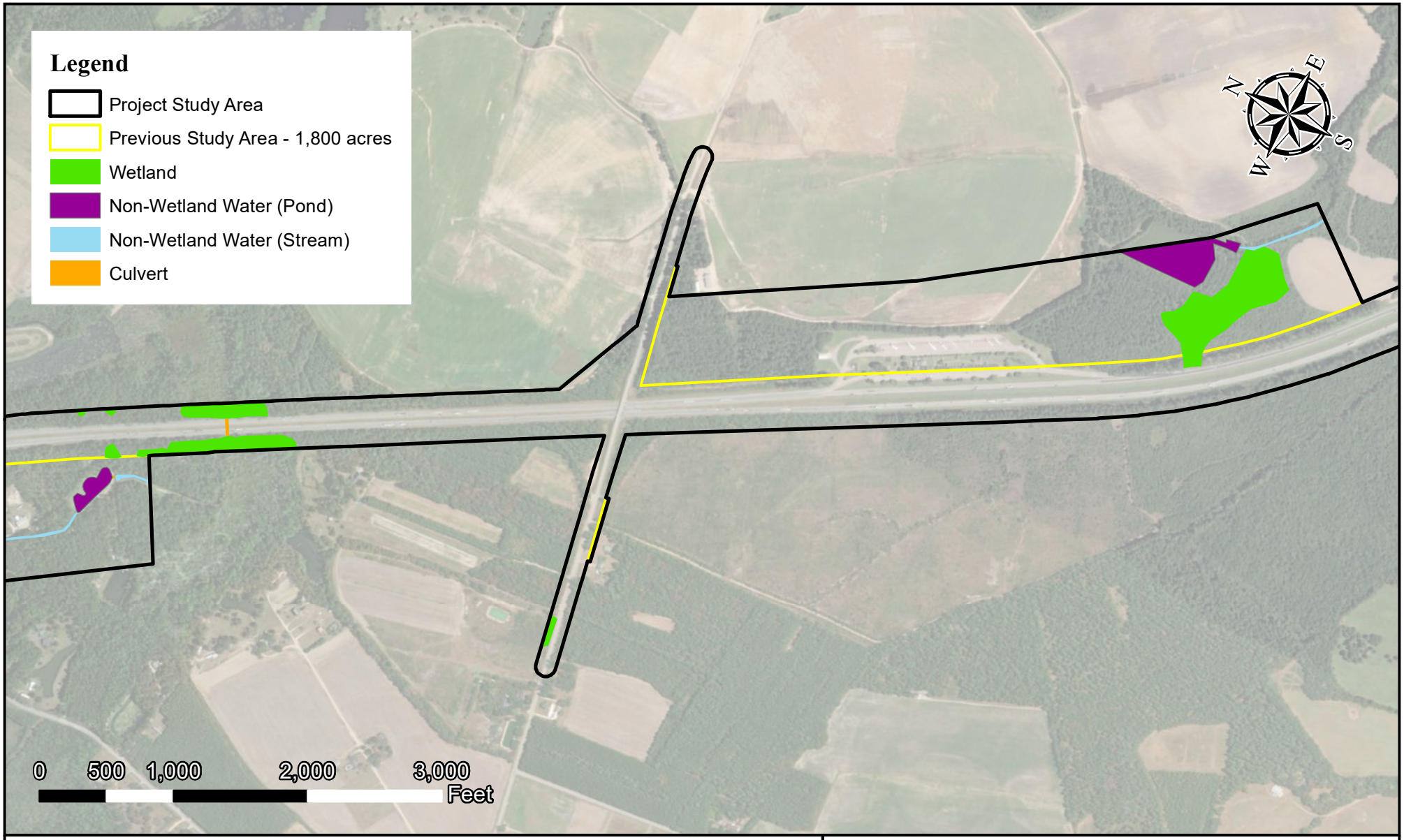

Figure 1E - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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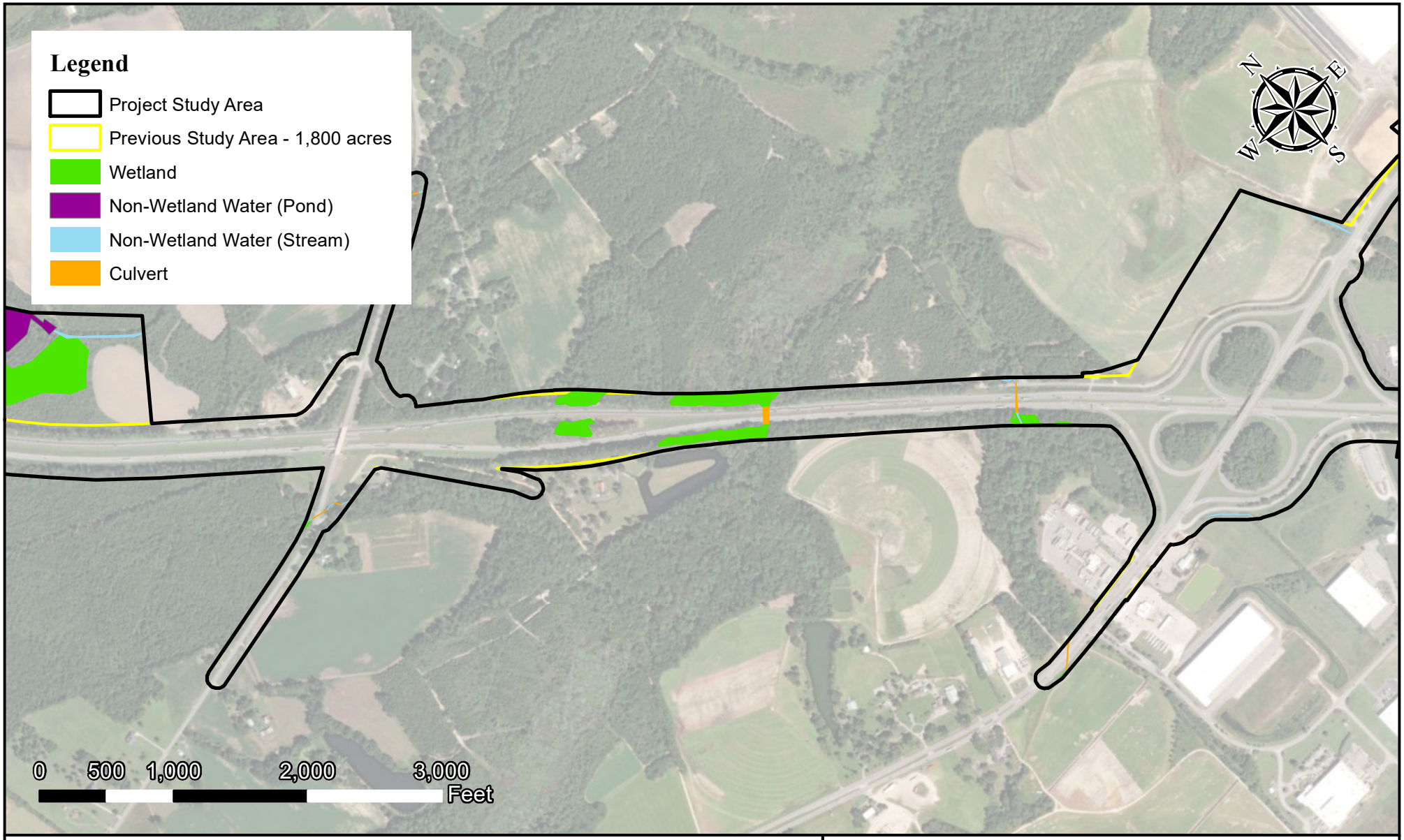

Figure 1F - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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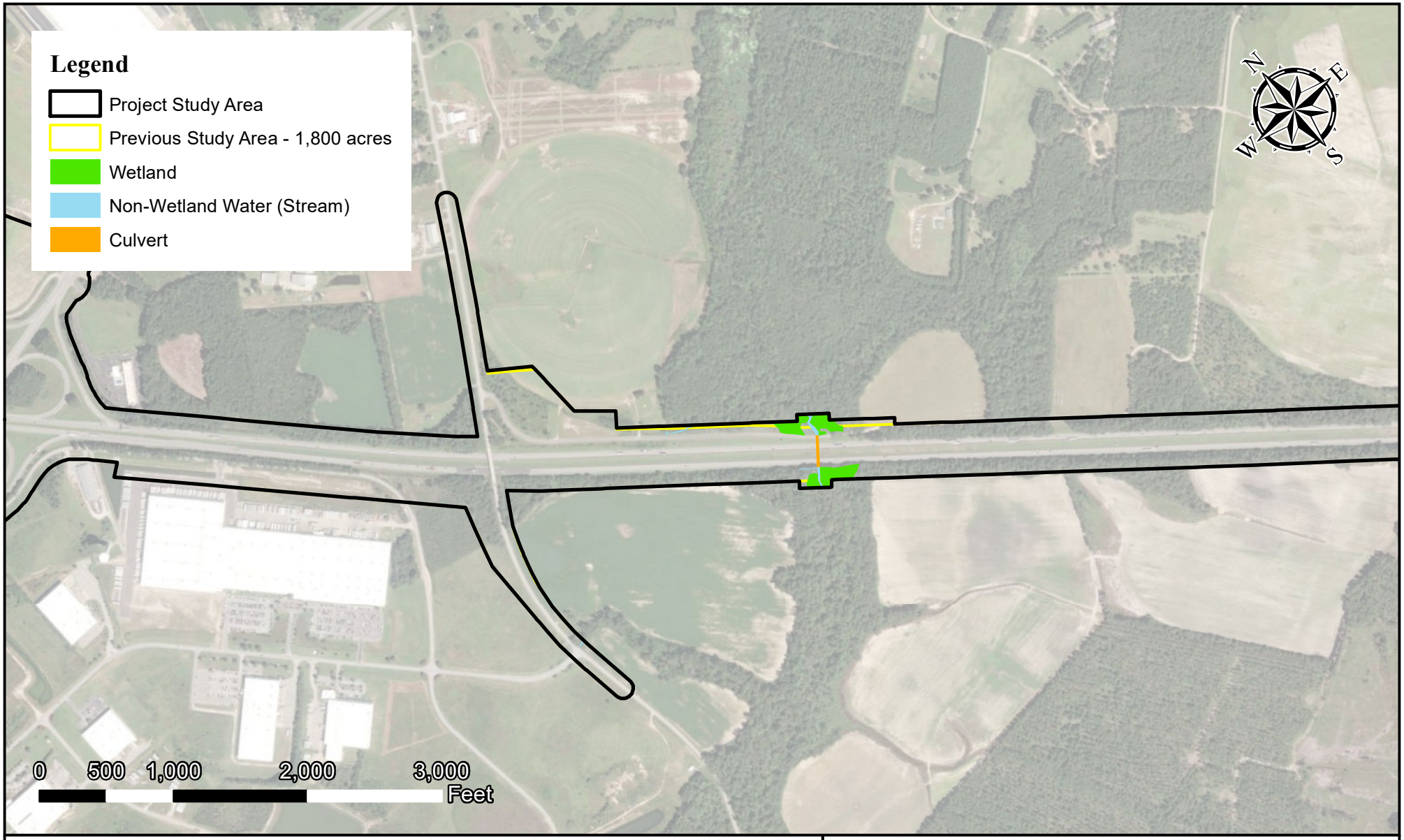

Figure 1G - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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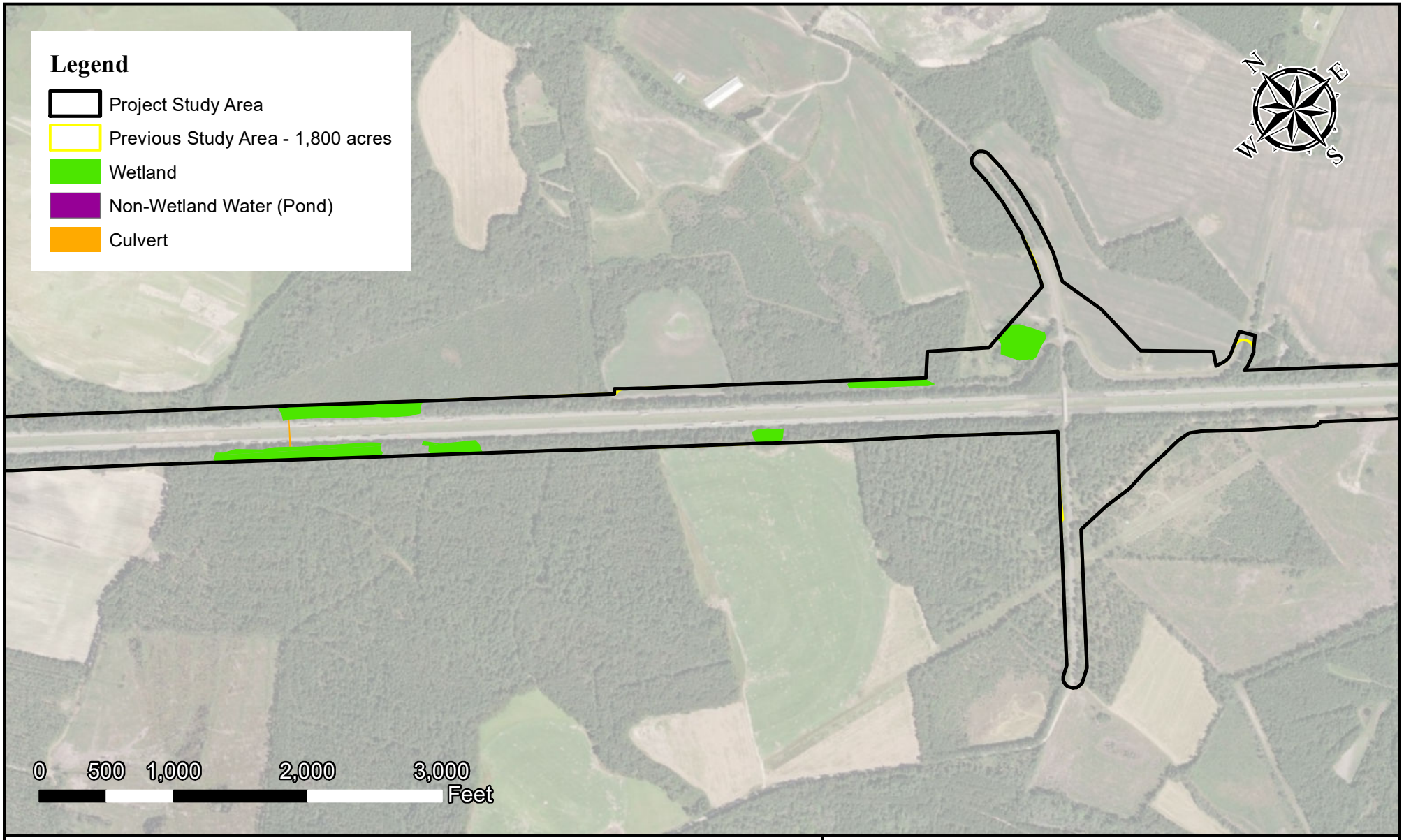

Figure 1H - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
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County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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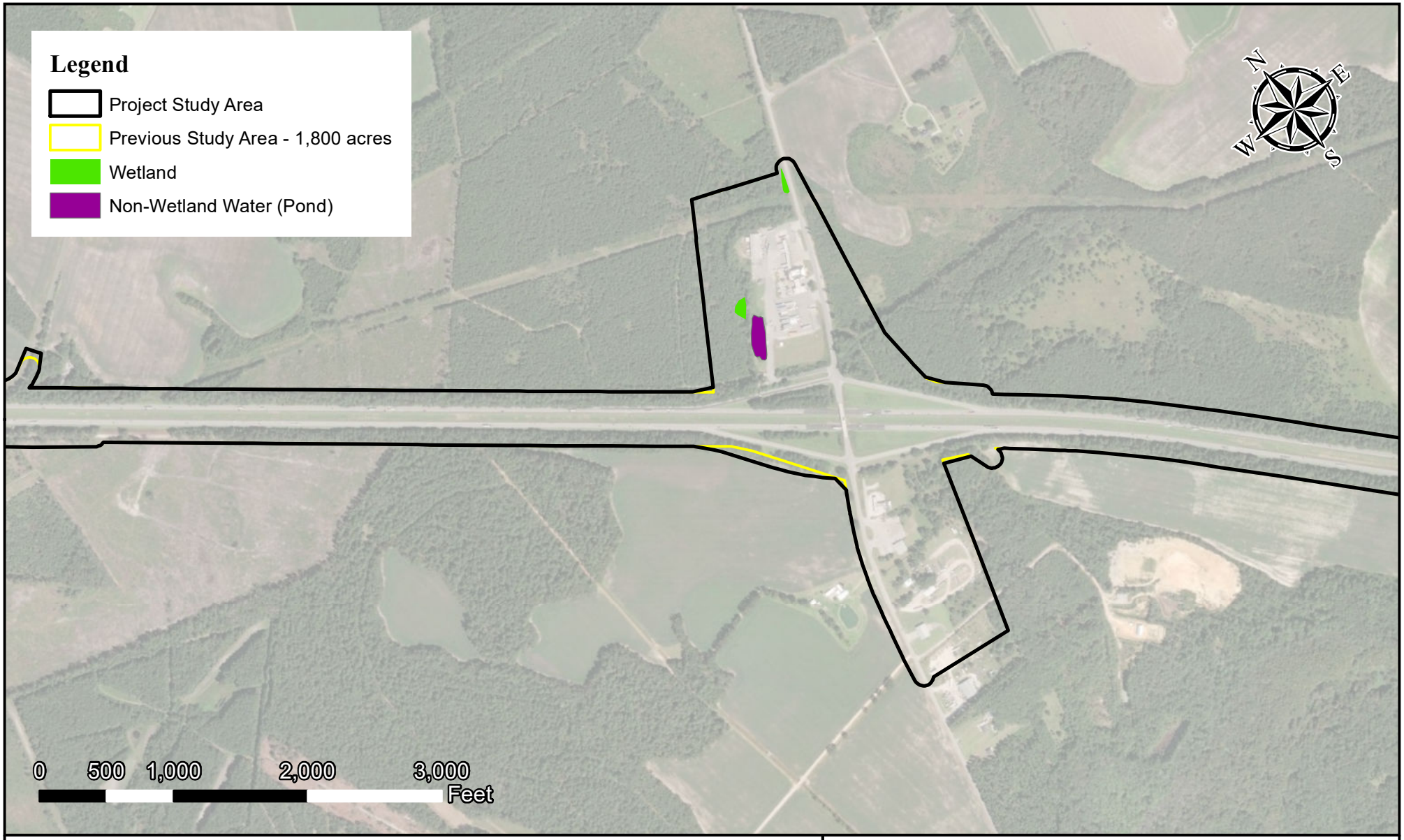

Figure 1I - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
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Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

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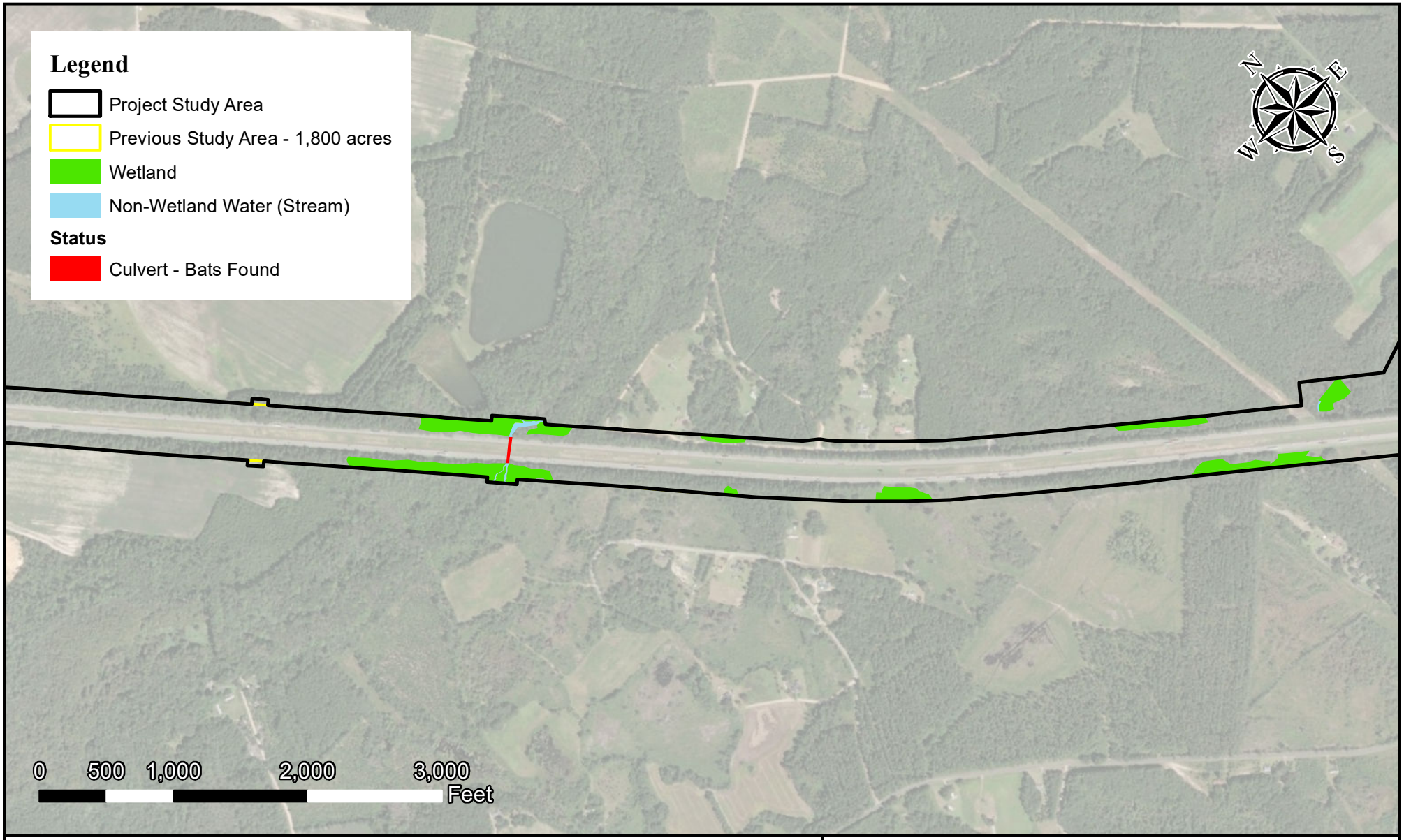

Figure 1J - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
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County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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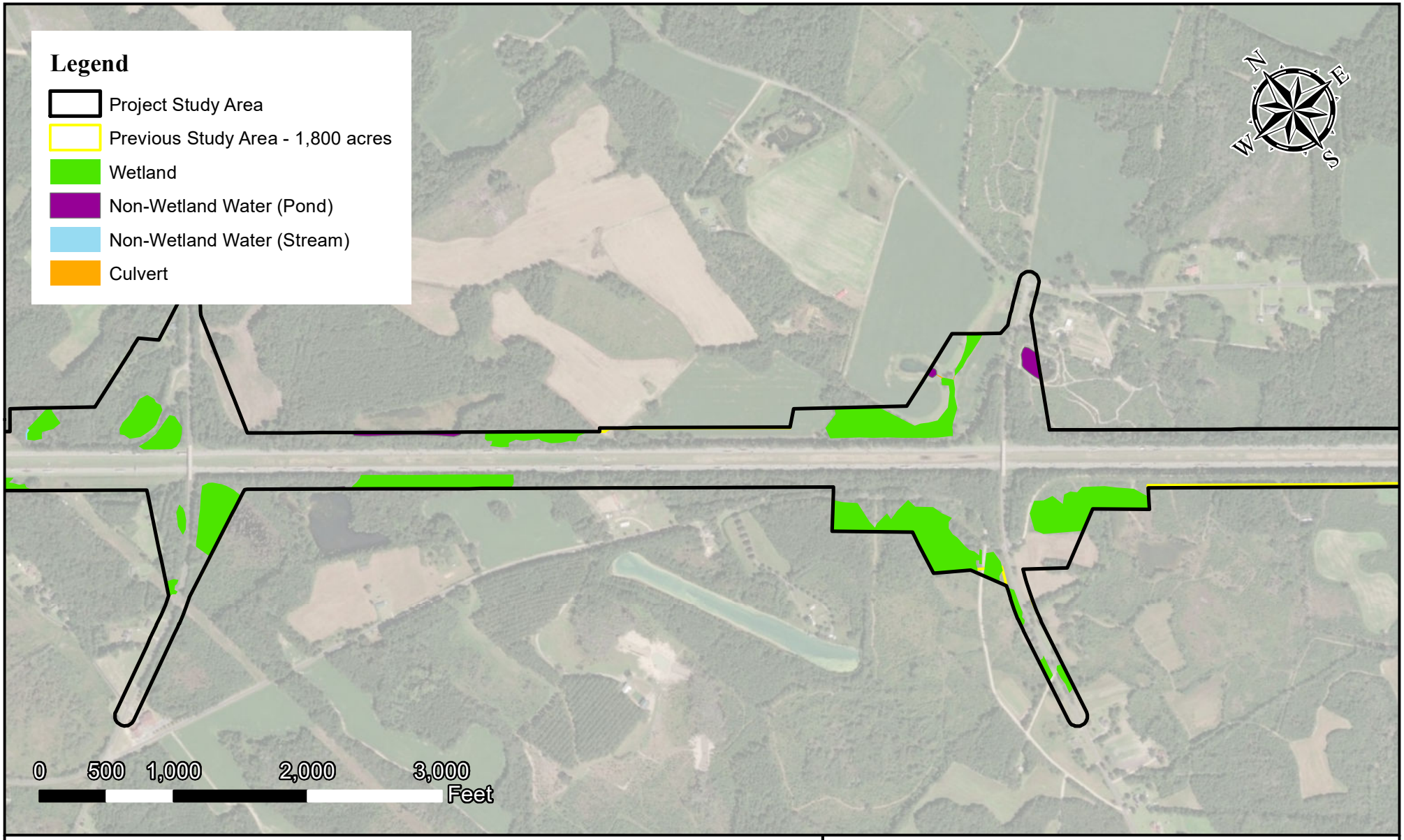

Figure 1K - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

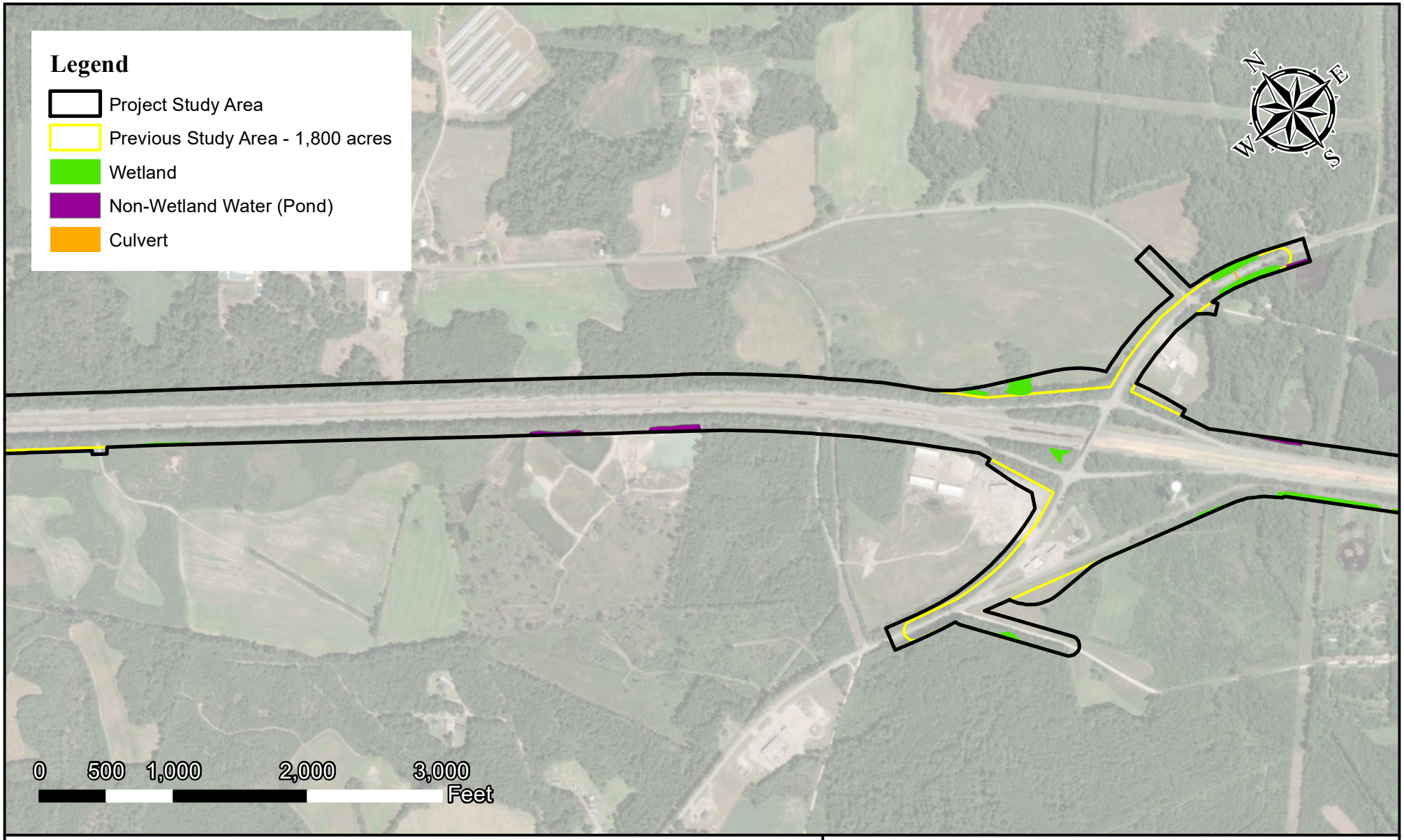

Figure 1L - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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Figure 1M - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

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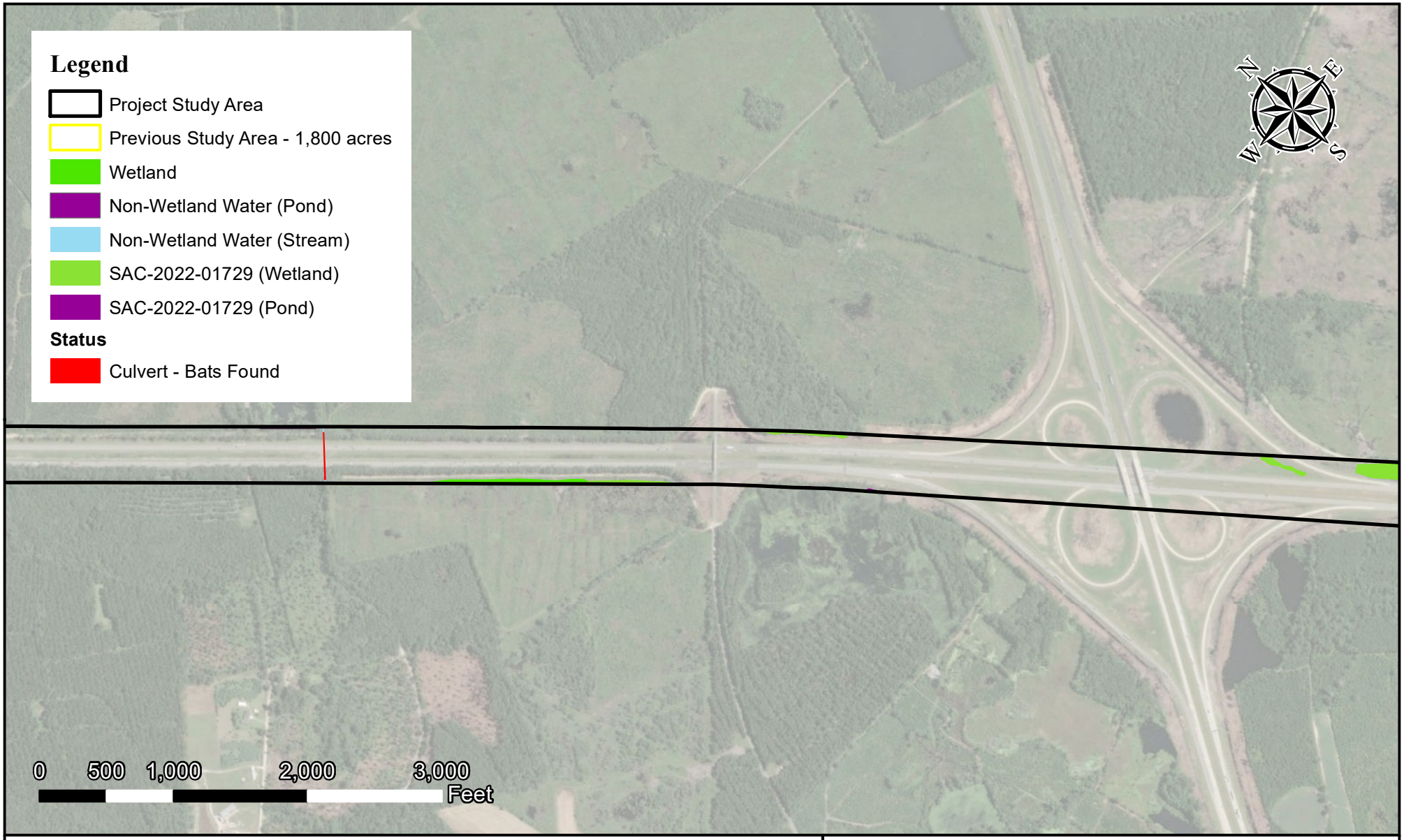


Figure 1N - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

Figure 1O - Aquatic Resources

Author: Three Oaks Engineering
Project Name: I-26 Corridor Improvements MM 145 - 172
PIN: P041967 & P042454
Acreage: 1,958 acres
County: Orangeburg & Dorchester
State: South Carolina

Date: September, 2025

South Carolina Department of Transportation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Carolina Ecological Services
176 Croghan Spur Road, Suite 200
Charleston, SC 29407-7558
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To: 09/23/2025 19:48:54 UTC
Project code: 2024-0067704
Project Name: I-26 Corridor Improvements MM 145-172

Federal Nexus: yes
Federal Action Agency (if applicable): South Carolina Department of Transportation

Subject: Technical assistance for 'I-26 Corridor Improvements MM 145-172'

Dear Zachary Biltoft:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on September 23, 2025, for 'I-26 Corridor Improvements MM 145-172' (here forward, Project). This project has been assigned Project Code 2024-0067704 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey), invalidates this letter.**

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	May affect
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	May affect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate. Projects that receive a may affect determination for tricolored bat through the key, should contact the appropriate Ecological Services Field Office if they want to conference on this species.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Canby's Dropwort *Oxypolis canbyi* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Pondberry *Lindera melissifolia* Endangered
- Red-cockaded Woodpecker *Dryobates borealis* Threatened
- Southern Hognose Snake *Heterodon simus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

Conclusion

Consultation with the Service is not complete. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of “May Affect.” A “May Affect” determination in this key indicates that the project, as entered, is not consistent with the questions in the key. Not all projects that reach a “May Affect” determination are anticipated to result in adverse impacts to listed species. These projects may result in a “No Effect”, “May Affect, Not Likely to Adversely Affect”, or “May Affect, Likely to Adversely Affect” determination depending on the details of the project. Please contact our South Carolina Ecological Services to discuss methods to avoid or minimize potential adverse effects to those species or designated critical habitats.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

I-26 Corridor Improvements MM 145-172

2. Description

The following description was provided for the project 'I-26 Corridor Improvements MM 145-172':

> Widening I-26 in Orangeburg County from MM 145 - 172 to six lanes and improvements to interchanges.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.41897885,-80.67499323912382,14z

DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   Yes

4. Your project overlaps with an area where northern long-eared bats or tricolored bats may be present and roosting in trees year-round.

   Do you understand that your project may impact bats roosting in trees at any time during the year?

   Yes

5. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   No

6. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer 'yes' to this question.

   Yes

7. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   Yes

8. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   No

9. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

10. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

    No

11. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

    Automatically answered
    Yes

12. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

    No

13. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

    No

14. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    Yes

15. Has the local Service Field Office confirmed that bridge surveys are not needed because project activities are not expected to impact bats, or because NLEBs and TCBs are not using bridges within the action area?

    No

16. Has a site-specific bridge assessment following USFWS guidelines been completed?

    Note: For information on conducting a bridge/structure assessment, please see Appendix K in the USFWS' Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines at:https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines Additional resources can be found at: https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources and a training video is located at: https://www.youtube.com/watch?v=iuFwkT7q8Ws.

    Yes

17. Was evidence of bat use found during the bridge assessment?

    No

    SUBMITTED DOCUMENTS

    - *Bat Structure inspections.pdf https://ipac.ecosphere.fws.gov/project/JSFDL5VDEJF6VN7ZVYFP73AKBE/projectDocuments/170489703*
    - *Bat Structure inspections.pdf https://ipac.ecosphere.fws.gov/project/JSFDL5VDEJF6VN7ZVYFP73AKBE/projectDocuments/170489704*

18. Did you coordinate with your local Ecological Services Field Office (ESFO) and receive approval of the bridge assessment results? If NO, please contact the appropriate local ESFO before completing this determination key.

    Yes

19. Will the action result in effects to a culvert or tunnel at any time of year?

    Yes

20. Does the culvert or tunnel equal or exceed 23 feet (7.0 meters) in length?

    Yes

21. Do the interior dimensions of the culvert or tunnel **equal or exceed 3.0 feet (0.9 meters) in height (minimum height for tricolored bat)**?

    Yes

22. Has the local Service Field Office confirmed that culvert surveys are not needed because project activities are not expected to impact bats, or because NLEBs and TCBs are not using culverts within the action area?

    No

23. Has a site-specific culvert assessment following USFWS guidelines been completed?

    Note: For information on conducting a bridge/structure assessment, please see Appendix K in the USFWS' Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines at:https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines Additional resources can be found at: https://www.fws.gov/media/bats-and-transportation-structures-references-and-additional-resources and a training video is located at: https://www.youtube.com/watch?v=iuFwkT7q8Ws.

    Yes

    SUBMITTED DOCUMENTS

    - *Bat Structure inspections.pdf https://ipac.ecosphere.fws.gov/project/JSFDL5VDEJF6VN7ZVYFP73AKBE/projectDocuments/170489704*

24. Was evidence of bat use found during the bridge/structure (e.g., culvert) assessment?

    Yes

25. Does the action area intersect the northern long-eared bat species list area?

    Automatically answered
    Yes

26. Does the action area intersect the tricolored bat species list area?

    Automatically answered
    Yes

27. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Zachary Biltoft
Address: 1022 State Street
City: Cayce
State: SC
Zip: 29033
Email zach.biltoft@threeoaksengineering.com
Phone: 8648149327

LEAD AGENCY CONTACT INFORMATION

Lead Agency: South Carolina Department of Transportation

G-2: STATE-LISTED SPECIES MEMORANDUM

MEMORANDUM

To: I-26 Corridor Improvements MM 145-172 Project File

From: Three Oaks Engineering, Inc.

Date: August 25, 2025

Subject: I-26 Widening MM 145-172 – State Protected Species
FHWA Project Number: EAXX---XSC-1733319228
SCDOT Project ID: P041967 & P042454

As prescribed by the State Listed Species Protection Guidance provided by the South Carolina Department of Natural Resources (SCDNR), the SCDNR's Natural Heritage Database was used to generate a list of state protected species known to occur within Dorchester and Orangeburg Counties. The project study area (PSA) was entered into the Natural Heritage Species Reviewer on August 25th, 2025, to generate a report (attached) of protected species known to occur within both the PSA and a two-mile buffer area around the PSA. SCDNR recommends a minimum buffer of two miles if the project includes any in-water impacts. According to the SC Natural Heritage Species Reviewer report, Carolina gopher frog, red-cockaded woodpecker, and Rafinesque's big-eared bat are known to occur within or near the PSA.

Although the Species Reviewer report provides information on known occurrences of these species, SCDNR states that the lack of an occurrence record does not equate to absence of the species from a site. Because individuals of these species are mobile and occurrence records may either be dated or lack precise location information, the county list is recommended to evaluate the potential presence of protected species. The list of state threatened or endangered species, protection status, and habitat information is provided in **Table 1**.

The presence of suitable habitat for state listed species within the PSA was evaluated during the field delineation of waters of the United States (WOTUS) and field surveys for federally listed species in Dorchester and Orangeburg Counties. Details on state listed species which are also protected by the US Fish and Wildlife Service (USFWS) as federally threatened or endangered can be found in the Biological Evaluation (BE) prepared for the project. Determination of the presence of suitable habitat for state protected species is provided in **Table 1**.

Table 1. State Listed Species Known to Occur within Dorchester and Orangeburg Counties

Species	State Status	Federal Status	Habitat Type	Habitat Present in PSA
Broad-striped dwarf siren *Pseudobranchus striatus striatus*	State Threatened	N/A	Ponds, swamps, and ditches	Yes
Carolina gopher frog** *Lithobates capito*	State Endangered	At-Risk Species	Semi-permanent and temporary ponds (breeding); pine forests, xeric hammocks, mesic flatwoods, mixed hardwood/ pine (nonbreeding)	Yes (foraging and breeding)
Bald Eagle *Haliaeetus leucocephalus*	State Threatened	BGEPA	Tall trees (nesting); open water, marsh, and rivers (foraging)	Yes (foraging)
Least Tern *Sternula antillarum*	State Threatened	MBTA	Beach nesters (sometimes tar/gravel rooftops), any aquatic habitat	No
Red-cockaded woodpecker** *Dryobates borealis*	State Endangered	Threatened; MBTA	Mature pines (nesting); pines >10" DBH (foraging)	No
Swallow-tailed kite *Elanoides forficatus*	State Endangered	MBTA	Wooded river swamps, open pine woods near marsh/water. Tall trees (nesting).	Yes
Broadtail madtom *Noturus* sp. c.f. *leptacanthus*	State Threatened	N/A	Narrow and deep Coastal Plain rivers with sand and gravel substrate and woody debris	Yes
Shortnose sturgeon *Acipenser brevirostrum*	State Endangered	Endangered	Palustrine rivers (spawning), estuarine inland waterways, open ocean (foraging/migration)	No
Florida Manatee *Trichechus manatus*	State Endangered	Threatened; MMPA	Summer visitor in estuarine and palustrine waterways	No
Rafinesque's big-eared bat* *Corynorhinus rafinesquii*	State Endangered	N/A	Forests (foraging); hollow trees, trees with shaggy or sloughing bark, and man-made structures (roosting)	Yes
Gopher tortoise *Gopherus polyphemus*	State Endangered	N/A	Open pineland in the sandhills and inner coastal plain	No
Spotted turtle** *Clemmys guttata*	State Threatened	At-Risk Species	Bogs, drainage ditches, pine flatwoods, wet meadows	Yes
Southern hog-nosed snake *Heterodon simus*	State Threatened	N/A	Sandhills, pine flatwoods, coastal dunes	Yes

* Known record overlaps with PSA; ** Known record overlaps with two-mile buffer of PSA

BGEPA = Bald and Golden Eagle Protection Act; MBTA = Migratory Bird Treaty Act; MMPA = Marine Mammal Protection Act

Table 2 summarizes avoidance and minimization protocols for state protected species for which habitat exists within the PSA.

Table 2. Avoidance and Minimization for State Listed Species

Species	Avoidance and minimization
Broad-striped dwarf siren (*Pseudobranchus striatus striatus*)	There are known occurrence records of the species adjacent to the PSA. Suitable habitat is abundant throughout the PSA, particularly at the crossings of Little Bull Swamp, Mill Branch, and Cow Castle Creek. The Contractor would be required to utilize SCDOT Best Management Practices (BMPs) for soil and erosion control during construction. BMPs would be installed prior to commencement of any in-water work, where practicable. Additionally, the limits of clearing, grading, or placement of fill in wetlands would be delineated and shown on approved permitted plans by the US Army Corps of Engineers (USACE) and SC Department of Environmental Services (SCDES). SCDOT and the Contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands.
Carolina gopher frog (*Lithobates capito*)	Only marginally suitable habitat is in the PSA, and no individuals have been observed to date. If any individuals of the species are observed, SCDOT will coordinate with SCDNR.
Bald eagle (*Haliaeetus leucocephalus*)	No known nesting sites are within the PSA or the two-mile buffer, and no individuals have been observed. There is suitable foraging habitat but no nesting habitat within the two-mile buffer. If any nesting sites or individuals are observed within the PSA, SCDOT will coordinate with USFWS regarding proper avoidance measures.
Swallow-tailed kite (*Elanoides forficatus*)	No known nesting sites are within the PSA or the two-mile buffer. There is suitable foraging and nesting habitat within the two-mile buffer. No nesting sites or individuals of the species have been observed within the PSA to date. If any individuals of the species are observed, SCDOT will coordinate with SCDNR.
Broadtail madtom (*Noturus* sp. c.f. *leptacanthus*)	There are no known occurrences of this species within the PSA or two-mile buffer. Suitable habitat exists throughout the PSA, particularly at the crossings of Little Bull Swamp, Mill Branch, and Cow Castle Creek. The Contractor would be required to utilize SCDOT Best Management Practices (BMPs) for soil and erosion control during construction. BMPs would be installed prior to commencement of any in-water work, where practicable. Additionally, the limits of clearing, grading, or placement of fill in wetlands would be delineated and shown on approved permitted plans by the US Army Corps of Engineers (USACE) and SC Department of Environmental Services (SCDES). SCDOT and the Contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands.

Rafinesque's big-eared bat (*Corynorhinus rafinesquii*)	Similar to recommendations provided by USFWS for the avoidance and minimization of impacts to the northern long-eared bat and tricolored bat, the Contractor should avoid tree-clearing activities between May 1st and July 31st, when maternity roosting activity within trees takes place. Additionally, Rafinesque's big-eared bats are known to use culverts for hibernacula, between November 1st and March 15th, and maternity roosting activity between May 1st and July 31st. Surveys of structures in the PSA were conducted in March 2025, and three Rafinesque's big-eared bats were observed within three culverts in the PSA (one individual in each culvert): - Mill Branch culvert (approx. MM 160) - Culvert west of I-95 (approx. MM 167.5) - Culvert west of Weathers Farm Rd (approx. MM 170) SCDOT will coordinate with SCDNR regarding appropriate minimization efforts prior to construction.
Southern hog-nosed snake (*Heterodon simus*)	Habitat is abundant throughout the PSA. SCDOT will coordinate with SCDNR to determine if surveys are appropriate prior to construction. If any individuals of the species are observed, SCDOT will coordinate with SCDNR. No individuals have been observed to date.
Spotted turtle (*Clemmys guttata*)	Habitat is abundant throughout the PSA. SCDOT will coordinate with SCDNR to determine if surveys are appropriate prior to construction. SCDOT and the Contractor would comply with all applicable permits and permit conditions for the placement of fill in wetlands.

State of South Carolina
Department of Natural Resources

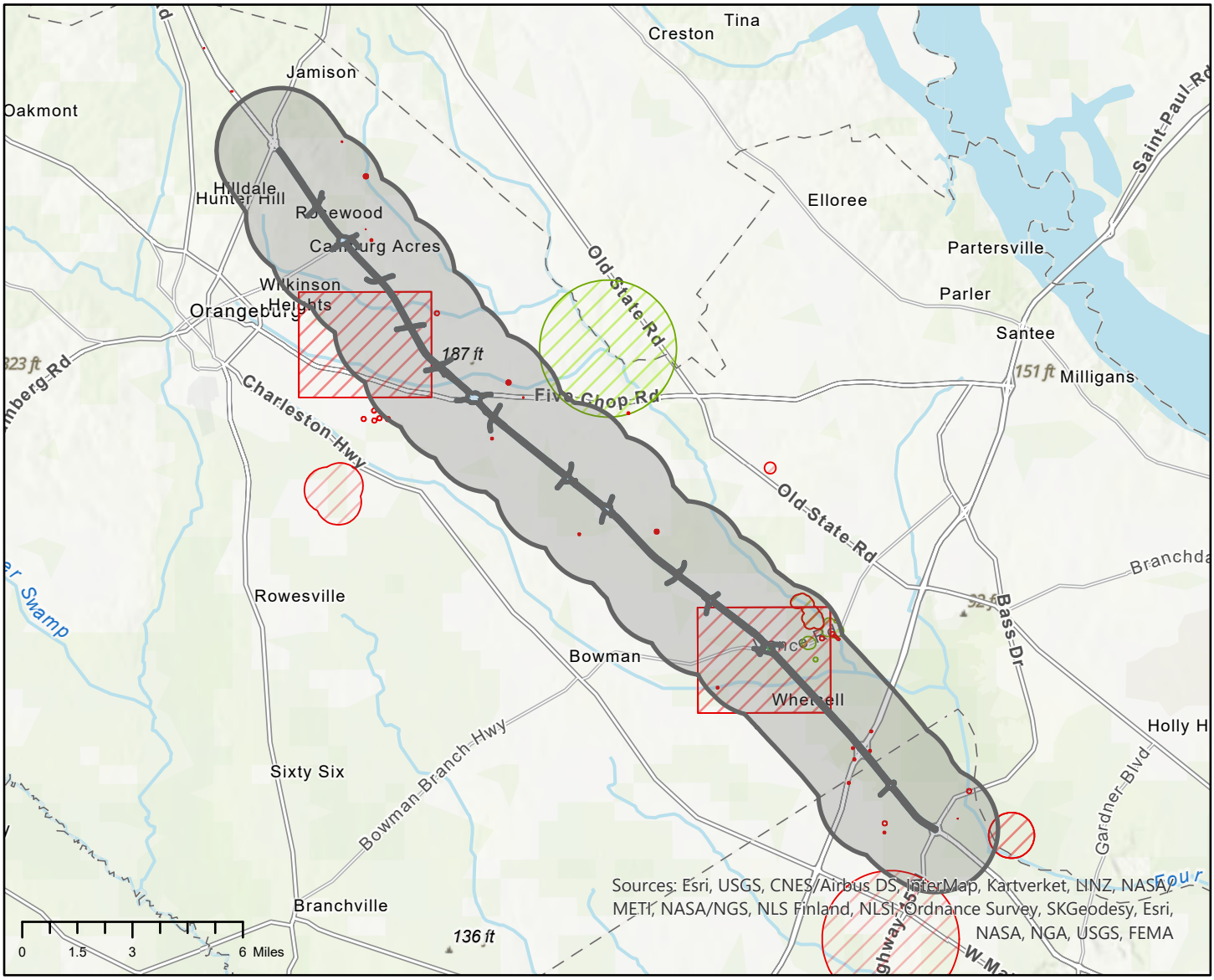
Thomas S. Mullikin, PhD, JD, *Director*
James W. Dillman, *Deputy Director, Wildlife and Freshwater Fisheries*

PO Box 167
Columbia, SC 29202
(803) 734-1396
speciesreview@dnr.sc.gov

Requested on Monday, August 25, 2025 by *Three Oaks Engineering*.

Re: Request for Threatened and Endangered Species Consultation
Three Oaks Engineering - I-26 Corridor Improvements MM 145-172 - Road - Dorchester County - Orangeburg County, South Carolina

The South Carolina Department of Natural Resources (SCDNR) has received your request for threatened and endangered species consultation of the above named project in Dorchester County - Orangeburg County, South Carolina. The following map depicts the project area and a 2 mile buffer surrounding:



State of South Carolina
Department of Natural Resources

Thomas S. Mullikin, PhD, JD, *Director*
James W. Dillman, *Deputy Director, Wildlife and Freshwater Fisheries*

This report includes the following items:
A - A report for species which intersect the project area
B - A report for species which intersect the buffer around the project area
C - A list of best management practices relevant to species near to or within the project area
D - A list of best management practices relevant to the project type
E - A list of state & federally listed species within the county of the project area
F - Other important information on conservation status, listed species, and how to submit observations to the program.

Please be advised:

The contents of this report, including all tables, maps, recommendations, and various other text, are produced as a direct result of the information a user provides at the time of submission. The SCDNR assumes that all information submitted by the user represents the project scope as proposed, and recommends that additional reports be requested should the scope deviate from how the project was initially represented to the SCDNR.

The technical comments outlined in this report are submitted to speak to the general impacts of the activities as described through inquiry by parties outside the South Carolina Department of Natural Resources. These technical comments are submitted as guidance to be considered and are not submitted as final agency comments that might be related to any unspecified local, state or federal permit, certification or license applications that may be needed by any applicant or their contractors, consultants or agents presently under review or not yet made available for public review. In accordance with its policy 600.01, Comments on Projects Under Department Review, the South Carolina Department of Natural Resources, reserves the right to comment on any permit, certification or license application that may be published by any regulatory agency which may incorporate, directly or by reference, these technical comments.

Interested parties are to understand that SCDNR may provide a final agency position to regulatory agencies if any local, state or federal permit, certification or license applications may be needed by any applicant or their contractors, consultants or agents. For further information regarding comments and input from SCDNR on your project, please contact our Office of Environmental Programs by emailing environmental@dnr.sc.gov or by visiting www.dnr.sc.gov/environmental. Pursuant to Section 7 of the Endangered Species Act, requests for formal letters of concurrence with regards to federally listed species should be directed to the USFWS.

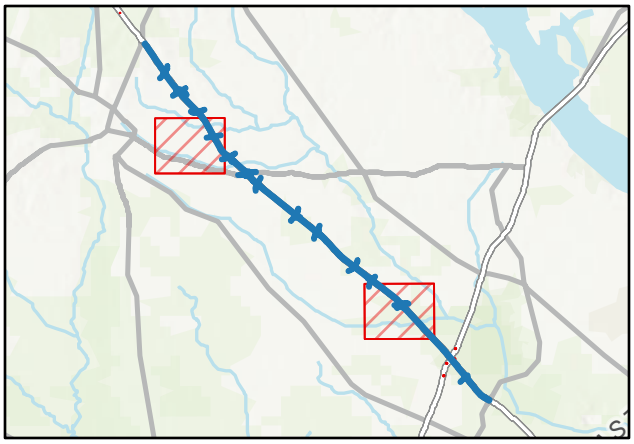
Should you have any questions or need more information, please do not hesitate to contact our office by email at speciesreview@dnr.sc.gov or by phone at 803-734-4080.

Sincerely,

Megan Levinson
Heritage Trust Program
SC Department of Natural Resources

A. Project Area - Species Report

There are 19 tracked species records found within the project foot print. The following table outlines occurrences found within the project footprint (if any), sorted by listing status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting Natureserve's web page. Please note that certain sensitive species found on site may be listed in this table but are not represented on the map. Please contact speciesreview@dnr.sc.gov should you have further questions related to sensitive species found within the project area.

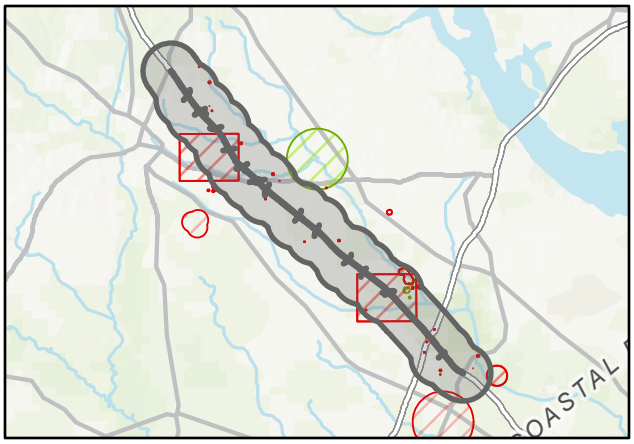


Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, CGIAR, USGS

Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	SWAP Priority	Last Obs. Date
Lasiurus cinereus	Hoary Bat	ARS	NA	G3G4	S2	1	2023-06-29
Myotis lucifugus	Little Brown Bat	ARS	NA	G3G4	S2	1	2023-07-11
Perimyotis subflavus	Tricolored Bat	LEP	NA	G3G4	S3	1	2021-12-09
Perimyotis subflavus	Tricolored Bat	LEP	NA	G3G4	S3	1	2022-02-09
Perimyotis subflavus	Tricolored Bat	LEP	NA	G3G4	S3	1	2023-01-31
Perimyotis subflavus	Tricolored Bat	LEP	NA	G3G4	S3	1	2023-07-11
Lanius ludovicianus	Loggerhead Shrike	MBTA	NA	G4	S3	1	1995
Lanius ludovicianus	Loggerhead Shrike	MBTA	NA	G4	S3	1	1991
Passerina ciris	Painted Bunting	MBTA	NA	G5	S3B	1	1991
Passerina ciris	Painted Bunting	MBTA	NA	G5	S3B	1	1995
Acantharchus pomotis	Mud Sunfish	NA	NA	G4G5	S4	0	2011-04-21
Anguilla rostrata	American Eel	NA	NA	G4	S2S3	1	2011-04-21
Etheostoma serrifer	Sawcheek Darter	NA	NA	G5	S4	3	2011-04-21
Myotis austroriparius	Southeastern Bat	NA	NA	G4	S3	1	2022-02-09
Procambarus hirsutus	Shaggy Crayfish	NA	NA	G4	S4	3	No Date
Procambarus troglodytes	Eastern Red Swamp Crayfish	NA	NA	G5	S3	0	No Date
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	NA	SE	G3G4	S2	1	2021-12-15
Quercus similis	Swamp Post Oak, Delta Oak	NA	NA	G4	S1	3	2004-08-20
Quercus similis	Swamp Post Oak, Delta Oak	NA	NA	G4	S1	3	2004-08-20

B. Buffer Area - Species Report (1 of 2)

The following table outlines rare, threatened or endangered species found within 2 miles of the project footprint, arranged in order of protection status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting Natureserve's web page. Please note that certain sensitive species found within the buffer area may be listed in this table but are not represented on the map.

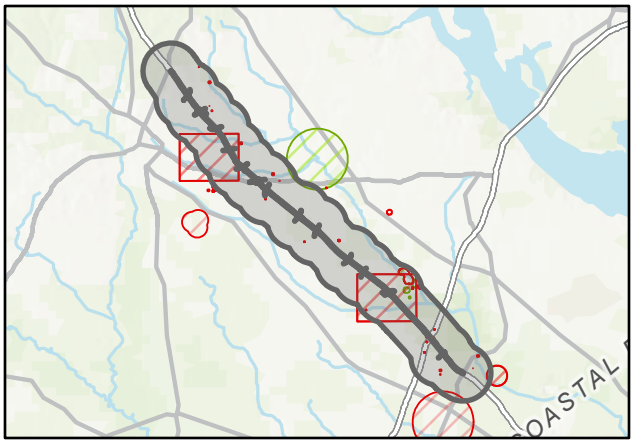


Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, CGIAR, USGS

Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	SWAP Priority	Last Obs. Date
Lasiurus cinereus	Hoary Bat	ARS	NA	G3G4	S2	1	2023-06-29
Myotis lucifugus	Little Brown Bat	ARS	NA	G3G4	S2	1	2023-07-11
Lithobates capito	Carolina Gopher Frog	ARS	SE	G2G3	S1	1	1956-02-12
Clemmys guttata	Spotted Turtle	ARS	ST	G5	S2	2	2021-11-10
Perimyotis subflavus	Tricolored Bat	LEP	NA	G3G4	S3	1	2023-07-11
Dryobates borealis	Red-cockaded Woodpecker	LT	SE	G3	S2	1	2023-08
Danaus plexippus	Monarch Butterfly	LTP	NA	G4	S4	1	2021-09
Lanius ludovicianus	Loggerhead Shrike	MBTA	NA	G4	S3	1	1995
Lanius ludovicianus	Loggerhead Shrike	MBTA	NA	G4	S3	1	1991
Passerina ciris	Painted Bunting	MBTA	NA	G5	S3B	1	1991
Passerina ciris	Painted Bunting	MBTA	NA	G5	S3B	1	1995
Alburnops chalybaeus	Ironcolor Shiner	NA	NA	G4	S3	3	2020-07-30
Ameiurus platycephalus	Flat Bullhead	NA	NA	G4	S3S4	3	1978-07-10
Ameiurus platycephalus	Flat Bullhead	NA	NA	G4	S3S4	3	1978-07-10
Ameiurus platycephalus	Flat Bullhead	NA	NA	G4	S3S4	3	1978-07-10
Anguilla rostrata	American Eel	NA	NA	G4	S2S3	1	2020-07-30
Anguilla rostrata	American Eel	NA	NA	G4	S2S3	1	2011-04-21
Callinina intertexta	Rotund Mysterysnail	NA	NA	G4	S2S3	0	1988-07-01
Crotalus horridus pop. 2	Timber Rattlesnake - Coastal	NA	NA	G4T4Q	S4	3	1976-03-13
Enneacanthus chaetodon	Blackbanded Sunfish	NA	NA	G3G4	S2S3	2	No Date
Enneacanthus obesus	Banded Sunfish	NA	NA	G5	S3	3	1977-06-27
Etheostoma serrifer	Sawcheek Darter	NA	NA	G5	S4	3	2020-07-30
Etheostoma serrifer	Sawcheek Darter	NA	NA	G5	S4	3	1978-07-10
Etheostoma serrifer	Sawcheek Darter	NA	NA	G5	S4	3	2011-04-21
Etheostoma serrifer	Sawcheek Darter	NA	NA	G5	S4	3	1978-07-10
Galba cubensis	Carib Fossaria	NA	NA	G5	S2S3	0	2007-08-02
Laevapex fuscus	Dusky Ancylid	NA	NA	G5	S5	0	1997-02-12
Lithobates heckscheri	River Frog	NA	NA	G5	S4	0	1976-03-13
Menetus dilatatus	Bugle Sprite	NA	NA	G5	S5	0	2007-08-02
Myotis austroriparius	Southeastern Bat	NA	NA	G4	S3	1	2021-12-09
Procambarus hirsutus	Shaggy Crayfish	NA	NA	G4	S4	3	1983-04-18
Procambarus hirsutus	Shaggy Crayfish	NA	NA	G4	S4	3	No Date
Pseudosuccinea columella	Mimic Lymnaea Snail	NA	NA	G5	S5	0	2007-08-02
Pteronotropis stonei	Lowland Shiner	NA	NA	G5	S3S4	3	1978-07-12
Asclepias perennis	Aquatic Milkweed	NA	NA	G5	S4	0	2021-09
Lilium pyrophilum	Sandhills Bog Lily	NA	NA	G2	S1	2	1957-07-19
Macbridea caroliniana	Carolina Birds-in-a-nest, Carolina	NA	NA	G3	S3	2	1957-07-19
Quercus similis	Swamp Post Oak, Delta Oak	NA	NA	G4	S1	3	2004-08-20
Quercus similis	Swamp Post Oak, Delta Oak	NA	NA	G4	S1	3	2004-08-20
Quercus similis	Swamp Post Oak, Delta Oak	NA	NA	G4	S1	3	2004-08-20

B. Buffer Area - Species Report (2 of 2)

The following table outlines rare, threatened or endangered species found within 2 miles of the project footprint, arranged in order of protection status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting Natureserve's web page. Please note that certain sensitive species found within the buffer area may be listed in this table but are not represented on the map.



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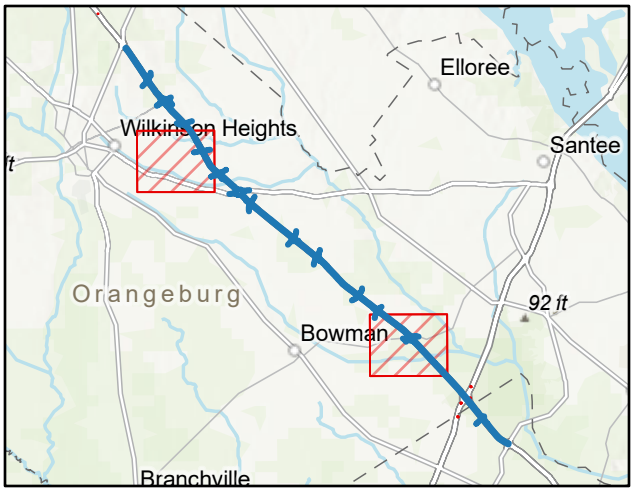
Scientific Name	Common Name	Federal Status	State Status	G Rank	S Rank	SWAP Priority	Last Obs. Date
Acantharchus pomotis	Mud Sunfish	NA	NA	G4G5	S4	0	2011-04-21
Acantharchus pomotis	Mud Sunfish	NA	NA	G4G5	S4	0	1978-07-17
Acantharchus pomotis	Mud Sunfish	NA	NA	G4G5	S4	0	1978-07-12
Acantharchus pomotis	Mud Sunfish	NA	NA	G4G5	S4	0	1978-07-10
Acantharchus pomotis	Mud Sunfish	NA	NA	G4G5	S4	0	1977-06-27
Heterandria formosa	Least Killifish	NA	NA	G5	S3S4	0	No Date
Noturus gyrinus	Tadpole Madtom	NA	NA	G5	S4	0	2007-06-21
Noturus gyrinus	Tadpole Madtom	NA	NA	G5	S4	0	1978-07-12
Noturus gyrinus	Tadpole Madtom	NA	NA	G5	S4	0	1978-07-10
Procambarus troglodytes	Eastern Red Swamp Crayfish	NA	NA	G5	S3	0	No Date
Procambarus troglodytes	Eastern Red Swamp Crayfish	NA	NA	G5	S3	0	No Date
Procambarus troglodytes	Eastern Red Swamp Crayfish	NA	NA	G5	S3	0	No Date
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	NA	SE	G3G4	S2	1	2021-12-09
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	NA	SE	G3G4	S2	1	2003-07-25
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	NA	SE	G3G4	S2	1	2003-06-22

C. Species Best Management Practices (1 of 3)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to species of concern which may be found on or near to the project area. Please contact speciesreview@dnr.sc.gov should you have further questions with regard to survey methods, consultation, or other species-related concerns.



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One or more occurrences of state listed species are found within or near to your project area. Please note that take of these species are prohibited under S.C. Code of Laws §50-15-30.

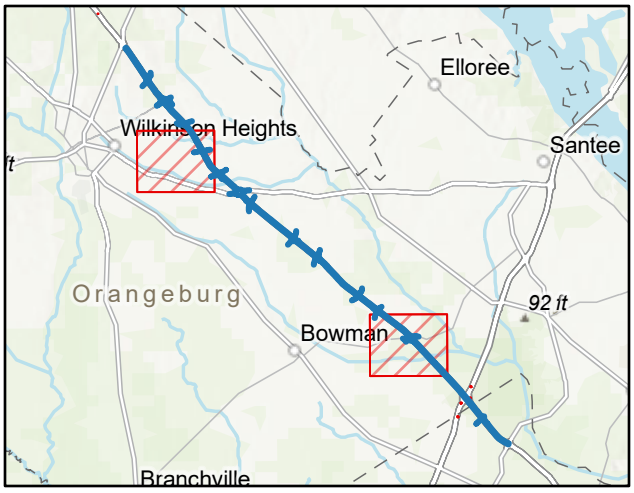
Regarding spotted turtle (1 of 3): The spotted turtle (Clemmys guttata) is a state-threatened species and a federal At-Risk species (ARS). Spotted turtles may be allowed to be relocated into areas of suitable habitat, management, and conservation status; however, any plans for relocation should be submitted for review to SCDNR with a detailed description and images of the current and future habitat and proposed work plan and methodologies as it pertains to a relocation project. It should be noted that not all habitats are suitable for relocation. • Avoid any construction in areas within or adjacent to aquatic resources (wetlands, streams, etc.) from January 15th through May 31st. • Prior to any construction activity, install silt fencing from November 15th through January 15th. Silt fencing should include 45-degree arms to direct spotted turtles to the uplands adjacent to the waterbody and away from the construction site. The 45-degree arms should be placed at a minimum of 100 ft from the waterbody and no more than 300 ft from the waterbody. Additionally, silt fence arms should extend at least 50-ft and extend in each direction so that the ends of each 45-degree angle to the fence meet to form a triangle. Silt fencing should remain in place throughout the duration of the proposed construction activities. • Prior to construction, monitor the silt fencing to ensure it is effectively working properly on a monthly basis. This should effectively exclude the species from the project area prior to construction activities. Once construction activities begin, the silt fence should be monitored weekly for the integrity of the fencing and the presence of spotted turtles or other herpetofauna or small wildlife species. If spotted turtles are encountered, the SCDNR state herpetologist should be notified immediately by calling 854-202-0472.

Regarding spotted turtle (2 of 3): Should the applicant not be able to install the silt fencing in accordance with the proposed window, it will require the applicant to install the exclusion fencing when the species is more active and has the potential to trap individuals with the area of proposed construction. Therefore, the SCDNR recommends checking the perimeter of the fencing twice daily for 14 days prior to ground disturbance and/or clearing in areas adjacent to and near these wetlands to ensure that spotted turtles are not trapped within the proposed project footprint. Any turtles found within the construction area during this initial monitoring period and the construction monitoring period described below must be relocated. The relocation plan must be submitted to SCDNR for review prior to the installation of the silt fencing and the proper permits acquired from the SCDNR Herpetologist for the movement of a state protected species. Please contact the State Herpetologist by calling 854-202-0472.

Regarding spotted turtle (3 of 3): For areas where construction will occur in wetlands, the SCDNR recommends the following to prevent the take of this state protected species: • Surveys for the presence of spotted turtle in wetlands to be impacted should occur from February 15th – April 15th. The best window for visually identifying spotted turtles as well as successfully trapping is February to early May. Visual surveys are usually most effective February to April and trapping, usually March to May. All of this depends on water levels in the surveyed wetland habitat. If dry or extremely low water levels, neither method will be effective or appropriate. Spotted turtles utilize wetland habitat during certain times of the year, but during periods of drought or low water levels, spotted turtles will aestivate in the surrounding forests adjacent to wetlands. The SCDNR recommends one of the methods detailed in the Spotted Turtle Assessment Protocol developed by the Spotted Turtle Working Group be utilized. Following completion of surveys, the results should be submitted to SCDNR, and further coordination occur if spotted turtle are found to be present onsite.

C. Species Best Management Practices (2 of 3)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to species of concern which may be found on or near to the project area. Please contact speciesreview@dnr.sc.gov should you have further questions with regard to survey methods, consultation, or other species-related concerns.



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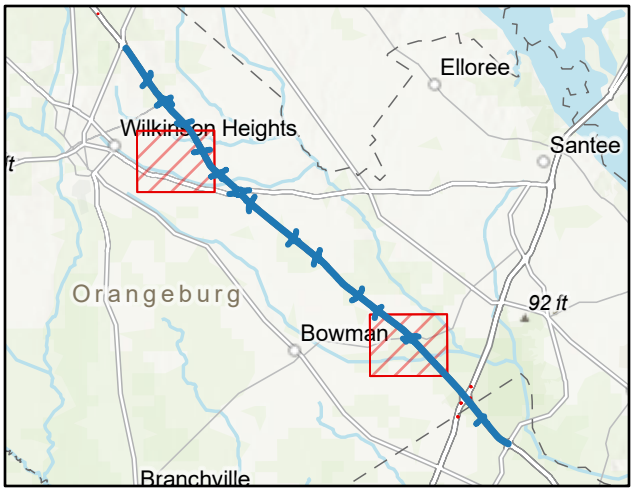
The gopher frog (Lithobates capito) is a state listed endangered and federal At-Risk species (ARS). The SCDNR recommends prior to habitat disturbance in the proposed work area, the areas of impact be completely surveyed by individuals qualified to identify this species and its habitat. Surveys can include either a call survey with the use of recording devices deployed from February 1st to March 31st or dip net surveys performed from March 1st through April 30th to identify gopher frog tadpoles. However, please note that identification of gopher frog tadpoles is extremely difficult and there are only a few individuals in the state that are likely qualified. Therefore, the SCDNR recommends that a call survey be performed. Surveys must be completed when water is present in the wetlands and should be performed by a biologist with gopher frog survey experience. Pursuant to S.C. Code of Laws §50-15-70 and State Regulation 123-151.1(A), It is unlawful for any person to take, possess, transport, import, export, process, sell, offer for sale, ship, or receive for shipment any gopher frog without a permit from the SCDNR.Gopher frogs may be allowed to be relocated into areas of suitable habitat, management, and conservation status; however, any plans for relocation should be submitted for review to SCDNR with a detailed description and images of the current and future habitat and proposed work plan and methodologies as it pertains to a relocation project.
Red-cockaded woodpecker, a federally threatened and state endangered species, is known to occur within or near your project area. Surveys of mature pine trees (50-years or older) to rule out RCW within the project footprint is advised, regardless of habitat condition, and use of heavy machinery is prohibited within 200-feet of a cavity tree during the breeding season (April through July). If RCW are found within the project area, please consult with the U.S. Fish and Wildlife Service before proceeding with any construction activities. Please note the take of this state listed species is prohibited under S.C. Code of Laws §50-15-30.
Three listed species of bats have been known to occur in the coastal plain ecoregions of South Carolina, including the state-endangered Rafinesque's big-eared bat (Corynorhinus rafinesquii); the federally endangered northern long-eared bat (NLEB) (Myotis septentrionalis); and the federally at-risk & proposed endangered tricolored bat (Perimyotis subflavus). Please note that take of a state endangered species is prohibited under S.C. Code of Laws §50-15-30. Prior to any land-clearing activities in the proposed project area, the SCDNR recommends a threatened and endangered species assessment be conducted to identify suitable habitat and provided to SCDNR for review.
Regarding Rafinesque's big-eared bat (1 of 2): Suitable habitat for Rafinesque's big-eared bat is defined as swamp forests, hardwood or mixed mature bottomlands, maritime forests and black gum (Nyssa sylvatica) and water tupelo (Nyssa aquatic) stands (Cochran 1999, Hofmann et al. 1999, Lance et al. 2001, Gooding and Langford 2004, Trousdale and Beckett 2005).If suitable habitat exists within the project, the SCDNR recommends assumption of presence of Rafinesque's big-eared bat within areas of forested wetlands and to further protect these areas, surround them with a 1000-foot buffers and avoid tree clearing from May 1st to July 31st to minimize disturbance and destruction of habitat that may be used by females during gestation or maternal care for pups. All other tree clearing outside of the forested wetlands and its associated buffer may occur in areas that are not wetlands or other aquatic resources in non-Rafinesque's big-eared bat maternity roosting habitat anytime. Where wetlands occur that are not Rafinesque's big-eared bat habitat, but they are spotted turtle habitat, tree clearing should only occur August to December to prevent impacts to spotted turtles during reproduction. However, if wetlands are dry January to June, they may be cleared, but they must be completely dry (no surface water present).For future right-of-way management (if applicable), use heavy equipment and herbicide treatment for right-of-way vegetation management in wetlands only during the months of July to November. If wetlands are completely dry (no surface water present), heavy equipment may be used January to June, but the wetlands must be completely dry.

C. Species Best Management Practices (3 of 3)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to species of concern which may be found on or near to the project area. Please contact speciesreview@dnr.sc.gov should you have further questions with regard to survey methods, consultation, or other species-related concerns.

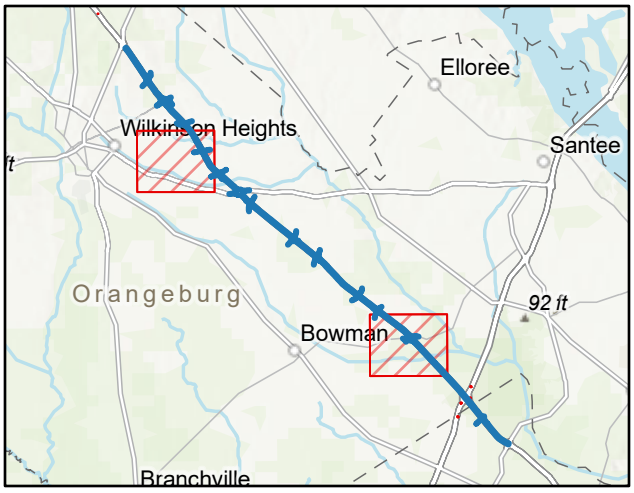


Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, CGIAR, USGS

Please note that the northern long-eared bat is now listed as federally endangered as of March 31, 2023, making the take of the NLEB prohibited under Section 9 of the Endangered Species Act. Therefore, please consult with the USFWS regarding impacts to this species.
Please note that tricolored bat was proposed for listing by the U.S. Fish and Wildlife Service on September 13, 2022. Therefore, due to the conservation concerns surrounding this species, the SCDNR strongly suggests acoustic surveys be conducted by a qualified individual during the summer months to assess the use of the area to be cleared by tricolored bats. Should the species occur in the proposed area slated for clearing, coordination should occur with SCDNR and USFWS regarding avoidance and minimization measures. Tricolored bat utilize caves, rock crevices, tree foliage and basal cavities, Spanish moss and man-made structures, such as houses, barns and culverts, as maternity roosts during the summer months and they will use more than one roost location. If this species are found on-site, please contact the U.S. Fish & Wildlife Service and SCDNR. The SCDNR recommends the assumption of presence of the the species and abide by a clearing moratorium from May 1st to July 31st if suitable habitat for the species is likely or are explicitly identified within the project footprint.
In the interest of preserving plant diversity, the South Carolina Plant Conservation Alliance performs native plant rescues in order to protect and preserve our diversity of native plants. If you are interested in assisting with this important endeavor please contact the SCDNR Botanist at botany@dnr.sc.gov before any development occurs onsite. There may be plants of interest on the project site that the Alliance would like to preserve.
Species in the above table with SWAP priorities of High, Highest or Moderate are designated as having conservation priority under the South Carolina State Wildlife Action Plan (SWAP). SWAP species are those species of greatest conservation need not traditionally covered under any federal funded programs. Species are listed in the SWAP because they are rare or designated as at-risk due to knowledge deficiencies; species common in South Carolina but listed rare or declining elsewhere; or species that serve as indicators of detrimental environmental conditions. SCDNR recommends that appropriate measures should be taken to minimize or avoid impacts to the aforementioned species of concern.

D. Project Best Management Practices (1 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to natural resources within or surrounding the project area. Please contact our Office of Environmental Programs at environmental@dnr.sc.gov should you have further questions with regard to best management practices related to this project area.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, CGIAR, USGS

Our records indicate one or more parcels within your project area may be associated with a conservation easement. We recommend you inquire with the appropriate County to receive a copy of the recorded deed and plat before moving forward with any alterations to the project site.

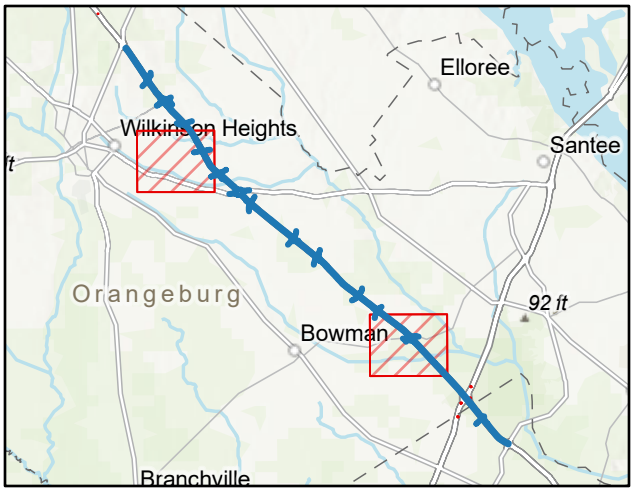
• All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.• Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
• Upon project completion, all disturbed areas must be permanently stabilized with vegetative cover (preferable), riprap or other erosion control methods as appropriate.
• The project must be in compliance with any applicable floodplain, stormwater, land disturbance, shoreline management guidance or riparian buffer ordinances.
• Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (e.g. silt fences or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
• Materials used for erosion control (e.g., hay bales or straw mulch) will be certified as weed free by the supplier.
• Inspecting and ensuring the maintenance of temporary erosion control measures at least:
  a. on a daily basis in areas of active construction or equipment operation;
  b. on a weekly basis in areas with no construction or equipment operation; and
  c. within 24 hours of each 0.5 inch of rainfall.
• Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification, or as soon as conditions allow if compliance with this time frame would result in greater environmental impacts.
• Land disturbing activities must avoid encroachment into any wetland areas (outside the permitted impact area).Wetlands that are unavoidably impacted must be appropriately mitigated.
• Your project may require a Stormwater Permit from the SC Department of Health & Environmental Control, please visit <LINK>https://www.scdhec.gov/environment/water-quality/stormwater</LINK>

Your project area includes a FEMA special flood hazard area and may require a permit from the County National Floodplain Insurance Program Manager before impacts occur to aquatic resources and the associated floodplains on site. Please refer to https://www.dnr.sc.gov/water/flood/documents/nfipadmindirectory.pdf to find your appropriate contact information.

All tributary crossings for road projects must be made with appropriately sized bridges and/or culverts. Culverts must be sized and designed to prevent alteration of the natural stream morphology. SCDNR prefers that arched or bottomless culverts are utilized; however, if using boxed culverts or pipes, the bottom elevation of the culvert or pipe must be at or below the stream bed elevation to allow for natural migration of aquatic organisms up- and downstream. Where feasible, disturbed stream banks should be restored by using bioengineering techniques for stream bank stabilization. Stream banks at crossings must be restored after construction has been completed. Disturbed stream banks can be restored by planting woody vegetation and by using bioengineering techniques for stream bank stabilization.

D. Project Best Management Practices (2 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to natural resources within or surrounding the project area. Please contact our Office of Environmental Programs at environmental@dnr.sc.gov should you have further questions with regard to best management practices related to this project area.



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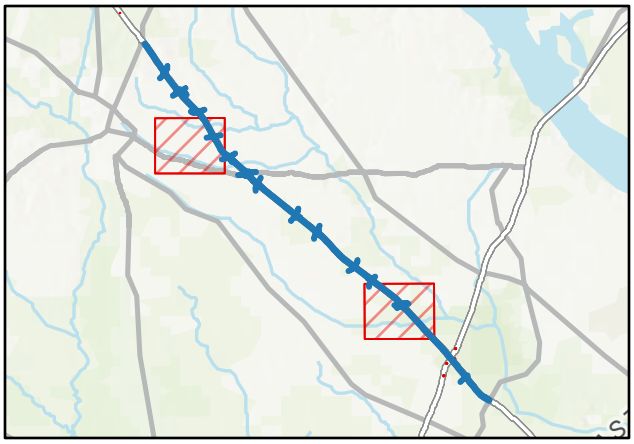
• Your project boundary lies within a coastal county in South Carolina which means you may also need a Coastal Zone Consistency Certification for your project from the SC Department of Health and Environmental Control. For more information, visit: https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/beach-management/coastal-permits/coastal-zone • If your project could affect coastal waters, tidelands, beaches and beach/dune systems, you may also need a critical area permit from the SC Department of Health and Environmental Control. For more information, visit: https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/beach-management/coastal-permits/critical-1

E. State & Federally Listed Species in Dorchester County - Orangeburg County



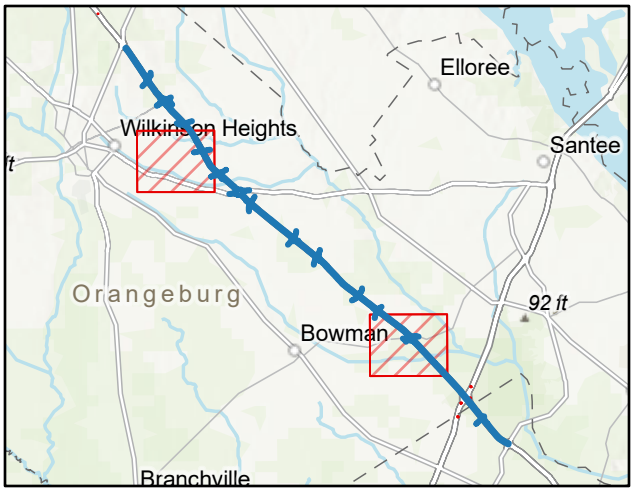
The South Carolina Department of Natural Resources' Heritage Trust Program organizes a database that captures and tracks element of occurrence data for rare, threatened and endangered species, both federal and state. Please keep in mind that this information included within this report is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. If your project requires the assessment of potential threatened or endangered species that could be within the project area, the SCDNR asks that you include a review of the state listed species within the county or watershed in addition to those that may be within the report as being within the project footprint or within 1-mile of the proposed project area. Consideration should be given to the occurrence of suitable habitat onsite, species movement and connectivity of habitat when assessing the likelihood of a state listed species on the project area.

Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, CGIAR, USGS

County	Scientific Name	Common Name	G Rank	S Rank	Federal Status	State Status	Group Type
Dorchester	*Acipenser oxyrinchus oxyrinchus*	Atlantic Sturgeon	G3T3	S3	LE: Federally Endangered	Not Applicable	Zoological
Dorchester	*Bombus pensylvanicus*	American Bumble Bee	G3G4	SNR	ARS: At-Risk Species	Not Applicable	Zoological
Dorchester	*Clemmys guttata*	Spotted Turtle	G5	S2	ARS: At-Risk Species	ST: State Threatened	Zoological
Dorchester	*Coreopsis integrifolia*	Chipola Dye-flower; Cileate-leaf	G1G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Dorchester	*Corynorhinus rafinesquii*	Rafinesque's Big-eared Bat	G3G4	S2	Not Applicable	SE: State Endangered	Zoological
Dorchester	*Crotalus adamanteus*	Eastern Diamond-backed Rattlesnake	G3	S2	ARS: At-Risk Species	Not Applicable	Zoological
Dorchester	*Danaus plexippus*	Monarch Butterfly	G4	S4	C: Candidate	Not Applicable	Zoological
Dorchester	*Dryobates borealis*	Red-cockaded Woodpecker	G3	S2	LT: Federally Threatend	SE: State Endangered	Zoological
Dorchester	*Elanoides forficatus*	Swallow-tailed Kite	G5	S2	MBTA: Migratory Bird Treaty Act	SE: State Endangered	Zoological
Dorchester	*Eurycea chamberlaini*	Chamberlain's Dwarf Salamander	G4	S3	ARS: At-Risk Species	Not Applicable	Zoological
Dorchester	*Gopherus polyphemus*	Gopher Tortoise	G3	S1	Not Applicable	SE: State Endangered	Zoological
Dorchester	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3B,S3N	Bald & Golden Eagle Protection Act	ST: State Threatened	Zoological
Dorchester	*Heterodon simus*	Southern Hog-nosed Snake	G2	S1	Not Applicable	ST: State Threatened	Zoological
Dorchester	*Lasiurus cinereus*	Hoary Bat	G3G4	S2	ARS: At-Risk Species	Not Applicable	Zoological
Dorchester	*Lindera melissifolia*	Southern Spicebush, Pondberry	G3	S2	LE: Federally Endangered	Not Applicable	Botanical
Dorchester	*Lithobates capito*	Carolina Gopher Frog	G2G3	S1	ARS: At-Risk Species	SE: State Endangered	Zoological
Dorchester	*Myotis lucifugus*	Little Brown Bat	G3G4	S2	ARS: At-Risk Species	Not Applicable	Zoological
Dorchester	*Perimyotis subflavus*	Tricolored Bat	G3G4	S3	LEP: Federally Endangered (Proposed)	Not Applicable	Zoological
Dorchester	*Sternula antillarum*	Least Tern	G4	S2B	MBTA: Migratory Bird Treaty Act	ST: State Threatened	Zoological
Dorchester	*Trichechus manatus*	Florida Manatee	G2G3	S2S3	LT: Federally Threatened	SE: State Endangered	Zoological
Orangeburg	*Acipenser brevirostrum*	Shortnose Sturgeon	G3	S3	LE: Federally Endangered	SE: State Endangered	Zoological
Orangeburg	*Acipenser oxyrinchus oxyrinchus*	Atlantic Sturgeon	G3T3	S3	LE: Federally Endangered	Not Applicable	Zoological
Orangeburg	*Bombus fraternus*	Southern Plains Bumble Bee	G3G4	SNR	ARS: At-Risk Species	Not Applicable	Zoological
Orangeburg	*Clemmys guttata*	Spotted Turtle	G5	S2	ARS: At-Risk Species	ST: State Threatened	Zoological
Orangeburg	*Corynorhinus rafinesquii*	Rafinesque's Big-eared Bat	G3G4	S2	Not Applicable	SE: State Endangered	Zoological
Orangeburg	*Danaus plexippus*	Monarch Butterfly	G4	S4	C: Candidate	Not Applicable	Zoological
Orangeburg	*Dryobates borealis*	Red-cockaded Woodpecker	G3	S2	LT: Federally Threatend	SE: State Endangered	Zoological
Orangeburg	*Eurycea chamberlaini*	Chamberlain's Dwarf Salamander	G4	S3	ARS: At-Risk Species	Not Applicable	Zoological
Orangeburg	*Haliaeetus leucocephalus*	Bald Eagle	G5	S3B,S3N	Bald & Golden Eagle Protection Act	ST: State Threatened	Zoological
Orangeburg	*Lasiurus cinereus*	Hoary Bat	G3G4	S2	ARS: At-Risk Species	Not Applicable	Zoological
Orangeburg	*Lithobates capito*	Carolina Gopher Frog	G2G3	S1	ARS: At-Risk Species	SE: State Endangered	Zoological
Orangeburg	*Lobelia boykinii*	Boykin's Lobelia	G1G2	S2?	ARS: At-Risk Species	Not Applicable	Botanical
Orangeburg	*Myotis lucifugus*	Little Brown Bat	G3G4	S2	ARS: At-Risk Species	Not Applicable	Zoological
Orangeburg	*Noturus sp. 2*	Broadtail Madtom	G2	S1	Not Applicable	ST: State Threatened	Zoological
Orangeburg	*Perimyotis subflavus*	Tricolored Bat	G3G4	S3	LEP: Federally Endangered (Proposed)	Not Applicable	Zoological
Orangeburg	*Pseudobranchus striatus striatus*	Broad-striped Dwarf Siren	G5T1T3	S1	Not Applicable	ST: State Threatened	Zoological

F. Important Information & Instructions for Submitting Species Observations

The SC Natural Heritage Dataset relies on continuous monitoring and surveying for species of concern throughout the state. Any records of species of concern found within this project area would greatly benefit the quality and comprehensiveness of the statewide dataset for rare, threatened and endangered species. Below are instructions for how to download the SC Natural Heritage Occurrence Reporting Form through the Survey123 App.



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Conservation Ranks & SWAP Priority Status

The SC Natural Heritage Program assigns S Ranks for species tracked within the state of South Carolina based on ranking methodology developed by NatureServe and its state program network. For information conservation rank definitions, please visit https://explorer.natureserve.org/AboutTheData/Statuses

The SCDNR maintains and updates it's State Wildlife Action Plan (SWAP) every 10 years. This plan categorizes species of concern by Moderate, High, and Highest Priority. Please visit https://www.dnr.sc.gov/swap/index.html for more information about the SC SWAP.

Important Information Regarding Element Occurrence Data:

The South Carolina Department of Natural Resources' Heritage Trust Program organizes a database that captures and tracks element of occurrence data for rare, threatened and endangered species, both federal and state. Please keep in mind that this information included within this report is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. If your project requires the assessment of potential threatened or endangered species that could be within the project area, the SCDNR asks that you include a review of the state listed species within the county or watershed in addition to those that may be within the report as being within the project footprint or within 1-mile of the proposed project area. Consideration should be given to the occurrence of suitable habitat onsite, species movement and connectivity of habitat when assessing the likelihood of a state listed species on the project area. To view these lists please visit our county and watershed dashboards at our website: https://natural-heritage-program-scdnr.hub.arcgis.com/#track

State-listed Species Guidance

The South Carolina Department of Natural Resources has released a document to provide clarity for the avoidance of a take of a state listed species and what may be needed from permit applicants, for each species listed as threatened or endangered under SC Code of Regulations 123-150 and 123-150.2. Please review this document for information on species-habitat requirements, survey protocol, and other information regarding environmental review: https://dnr.sc.gov/environmental/docs/SCDNRStateListedSpeciesProtectionGuidance.pdf

Instructions for accessing the SC Natural Heritage Occurrence Reporting Form

1) Follow https://arcg.is/1a0jzC0 or use the QR code here.
2) Select 'Open in browser' or 'Open in the Survey123 field app' depending on your preference. The browser option will only work when connected to the internet.
3) If using in the Survey123 field app, be sure to download the app from your app store beforehand.