

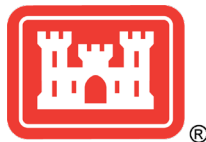
**Calhoun Reach Transmission Mains**  
**Calhoun County, South Carolina**

**Environmental Assessment**

Prepared by:

United States Army Corps of Engineers

Charleston District



November 2024

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**Table of Acronyms**

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ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
BORW	South Carolina Department of Health and Environmental Control, Bureau of Water
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DOT	Department of Transportation
DPU	Department of Public Utilities
EA	Environmental Assessment
ECHO	Enforcement and Compliance History Online
EID	Environmental Information Document
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FPPA	Farmland Protection Policy Act
FWCA	Fish and Wildlife Coordination Act
HDD	Horizontal Directional Drilling
HTRW	Hazardous, Toxic and Radioactive Waste
HUC	Hydrologic Unit Code
IPaC	Information for Planning and Consultation
LMRWA	Lake Marion Regional Water Agency
LMRWS	Lake Marion Regional Water System
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NLCD	National Land Cover Database
NMFS	U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NOAA	U.S. Department of Commerce, National Oceanic and Atmospheric Administration
NRCS	U.S. Department of Agriculture, Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
ROW	Right-of-way
SCDAH	South Carolina Department of Archives and History
SCDES	South Carolina Department of Environmental Services
SCDNR	South Carolina Department of Natural Resources
SCIAA	South Carolina Institute for Archaeology and Anthropology
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
SSURGO	Soil Survey Geographic Database
SWAP	State Wildlife Action Plan
TMDL	Total Maximum Daily Load
USACE	U.S. Department of Defense, Department of the Army, Army Corps of Engineers
USCB	U.S. Department of Commerce, Census Bureau



USDA	U.S. Department of Agriculture
USFWS	U.S. Department of the Interior, Fish & Wildlife Service
USGS	U.S. Geological Survey
WRDA	Water Resources Development Act

# **1. INTRODUCTION**

## **1.1. Project Authorization**

This Environmental Assessment (EA) has been prepared by the U.S. Army Corps of Engineers, Charleston District (USACE), in compliance with the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321- 4370f, and its implementing regulations, 40 C.F.R. §§ 1500-1508, and 33 C.F.R. Part 230, to evaluate the proposed construction of a water transmission line providing potable water to parts of Calhoun County in South Carolina.

The Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), as amended, specifically authorized USACE to provide assistance to non-federal interests for carrying out water-related environmental infrastructure and resources protection and development projects. Congress has subsequently appropriated funds for USACE to participate in planning, design, and construction of the Lake Marion Regional Water System (LMRWS), which requires a non-federal Sponsor to provide 25% of the total project cost. The Lake Marion Regional Water Agency (LMRWA) is serving as the non-federal sponsor and has partnered with the South Carolina Public Service Authority (Santee Cooper) to serve as the LMRWA's technical representative for the project.

## **1.2. Background**

The LMRWA was formed in 1995 with the primary goal of providing a reliable source of high-quality potable water to satisfy immediate and future water supply needs for a large portion of four counties (Calhoun, Clarendon, Dorchester, and Orangeburg) and eleven municipalities (Santee, Elloree, Holly Hill, Eutawville, Bowman, Branchville, St. George, Harleyville, Ridgeville, Summerton, and Manning). The project was also later expanded to include Berkeley County.

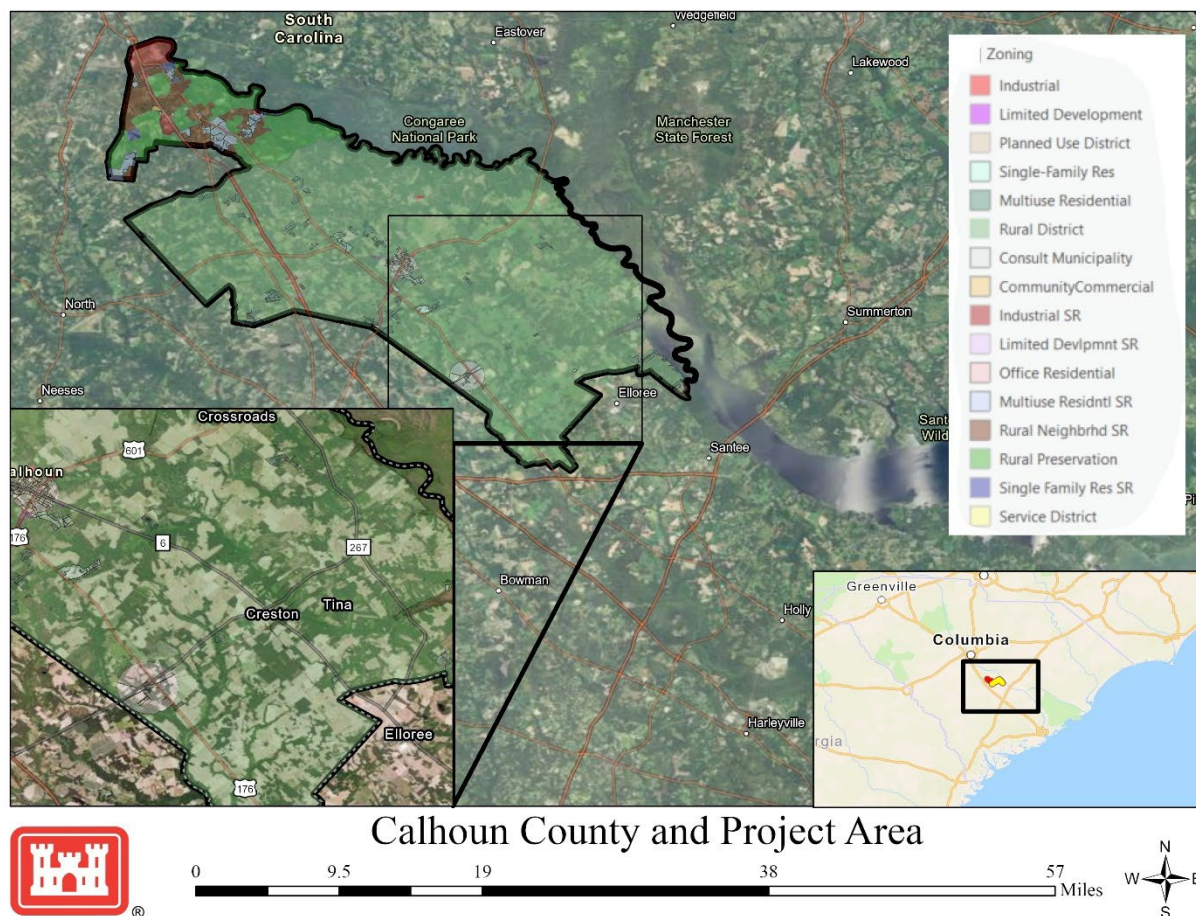
The LMRWS has been designed and constructed in phases. Phase I consisted of construction of a water transmission line along the U.S. Highway 301 corridor between the Town of Santee and City of Orangeburg, and installation of two elevated storage tanks. Phase II consisted of construction of an 8 million gallon per day drinking water treatment plant, and 65 miles of water transmission lines serving the municipalities of Manning, Summerton, Santee, Elloree, Holly Hill, and St. George. Phase III construction includes expansion to municipalities not included in Phase II. Separate EAs were prepared in 2003 for Phase I and 2004 for Phase II and these documents are incorporated by reference in this EA. The construction of a potable water transmission line from the elevated storage tank in Elloree to the Town of Cameron and north to Wertz Crossroad in St. Matthews has been proposed as part of Phase III construction of the LMRWS.

## **1.3. Project Description and Location**

USACE, working in cooperation with the LMRWA, Santee Cooper, and Calhoun County, is proposing to construct an extension to an existing potable water transmission main near the Town of Elloree. This project would be conducted in two phases with the first extending the water transmission main to the north and west approximately 70,522 feet (13.4 miles) to the town of Cameron, as well as about 988 feet (0.2 miles) off Old Number Six Hwy to the Calhoun County EMS Station. The second phase would extend from Cameron Rd northwest about 41,225 feet (7.8 miles) to the Town of St. Matthews near Wertz Crossroad.

Calhoun County is a largely rural area and is among the least populous and smallest counties in the state of South Carolina. As of July 1, 2021, the total population estimate for Calhoun County was 14,165, and the area of the county measures about 392 square miles (U.S. Census Bureau [USCB] 2022) (Figure 1). The focal area of Calhoun County in this project is about 35 miles southeast of the state capital of Columbia and about 70 miles northwest of Charleston. This area consists of smaller, rural communities including Cameron and St. Matthews. These towns are largely agricultural-based economies, with St. Matthews having around 1,800 residents and Cameron with around 400.

Calhoun County currently receives water supply on a limited basis from the Lake Marion Regional Water Facility, while much of the rural southeastern parts of the county receive water supply from groundwater wells. As part of this project, an existing storage tank will be tied to a proposed water supply line to serve these areas with greater access to potable water. Cameron is currently being served by Department of Public Utilities (DPU) and Calhoun County is in negotiations to take over services and will also take over operations and maintenance to serve Cameron.



*Figure 1. Calhoun County and Project Area*

#### **1.4. Purpose and Need**

This project will provide safe, clean drinking water to rural areas in Calhoun County. Once the main lines are constructed, expansion to smaller communities along Department of Transportation (DOT) rights-of-way (ROW) in Calhoun County is expected. Construction of Calhoun Reach would limit dependence on local groundwater aquifers and provide residences and businesses with dependable, environmentally sound and quality surface water. Doing so also limits the need for expensive, smaller networks of water supply lines and continued water well developments for residences and businesses.

The additional capacity will support existing and future development needs. In addition, including water demand on this part of the system reduces need to flush the Lake Marion system and saves water systemwide.

#### **1.5. Related Environmental Reviews**

The following environmental reviews have been completed as part of the overall LMRWS:

- *Lake Marion Regional Water Supply System – Phase I Environmental Assessment* (USACE 2003a). This EA was prepared to assess the construction of a water transmission line along the U.S. Highway 301 corridor between the Town of Santee and City of Orangeburg, and installation of two elevated storage tanks.
- *Lake Marion Regional Water Agency Environmental Information Document* (USACE 2003b). This Environmental Information Document (EID) was prepared as supporting documentation for preparation of an EA for Phase II of the LMRWS.
- *Lake Marion Regional Water Supply System – Phase II Environmental Assessment* (USACE 2004). This EA was prepared to assess the construction of a raw water intake and pump station, water treatment plant, water storage and pump station, and approximately 65 miles of various sized pipelines.
- *Environmental Assessment for the Proposed Goodby's Regional Wastewater Treatment Plant and Associated Pipelines, Orangeburg County, South Carolina* (USDA & USACE 2011). This EA assessed impacts associated with construction of approximately 31 mi of wastewater transmission lines and a wastewater treatment plant in Eastern Orangeburg County.
- *Harleyville Reach Water Transmission Main* (USACE 2014). This EA evaluated impacts associated with a 16" potable water transmission main extending 6.6 mi approximately from Holly Hill to Harleyville.
- *Dorchester Reach Water Transmission Main Environmental Assessment* (USACE 2016). This EA focused on the proposed installation of a new 16-20", 10.6-mi potable water transmission main near Harleyville and Ridgeville.
- *Supplemental Information Report: Lake Marion Regional Water System Dorchester Reach Water Transmission Main Project* (USACE 2018). This SIR evaluated impacts associated with a 1-mi extension of the Dorchester Reach Water Transmission Main (2016) northward along SC Highway 27, beginning at the intersection of US Highway 78 and SC Highway 27 and

terminating at a new metering station approximately 1,000 ft south of the intersection of SC Highway 27 and Interstate 26.

- *Supplemental Information Report: Lake Marion Regional Water System Winding Woods Reach Water Transmission Line Project* (USACE 2021). This SIR involved construction of a 7.75-mi transmission main from St. George to Harleyville and a water storage tank near St. George.
- *Orangeburg-Berkeley Transmission Main Environmental Assessment* (USACE 2022). This EA evaluated the impacts of constructing a 20” potable water transmission main beginning southwest of Holly Hill and extending into Berkeley County, northeast of the Ridgeville, SC, approximately 16 miles.
- *Supplemental Information Report: Orangeburg-Berkeley Water Transmission Main* (USACE 2024). This SIR documents USACE conclusion regarding whether the updated environmental compliance efforts for the reclassification of the Northern long-eared bat (*Myotis eptentrionalis*) (“NLEB”) from threatened to endangered under the Endangered Species Act (ESA) warrant supplementation of the 2022 EA.

## **2. ALTERNATIVES**

### **2.1. Alternatives Analysis**

Several conceptual alternatives were initially evaluated. Alternatives were evaluated based on compliance with environmental laws and regulations, compliance with executive orders, level of environmental impacts including impacts to air quality and noise; climate; cultural resources; hazardous, toxic and radioactive waste (HTRW); land use; water resources and aquatic habitat; socioeconomic and environmental justice; terrestrial resources and wildlife; threatened and endangered species; cost effectiveness; engineering feasibility; and the ability of the alternative to supply water to the area. Alternative plans including drilling additional wells, connecting to existing water supply systems at other locations, and a “No Action” alternative were assessed on whether each could address immediate and long-term impacts to the region. Alternatives that were not feasible from an engineering standpoint, were not cost effective, were not compliant with environmental laws and regulations, were not compliant with executive orders, did not meet the water supply needs of the area, or had significant environmental impacts were not carried forward. As explained below, only one of the alternatives, the Proposed Action Alternative, was found to meet the criteria outlined above.

### **2.2. Proposed Action Alternative**

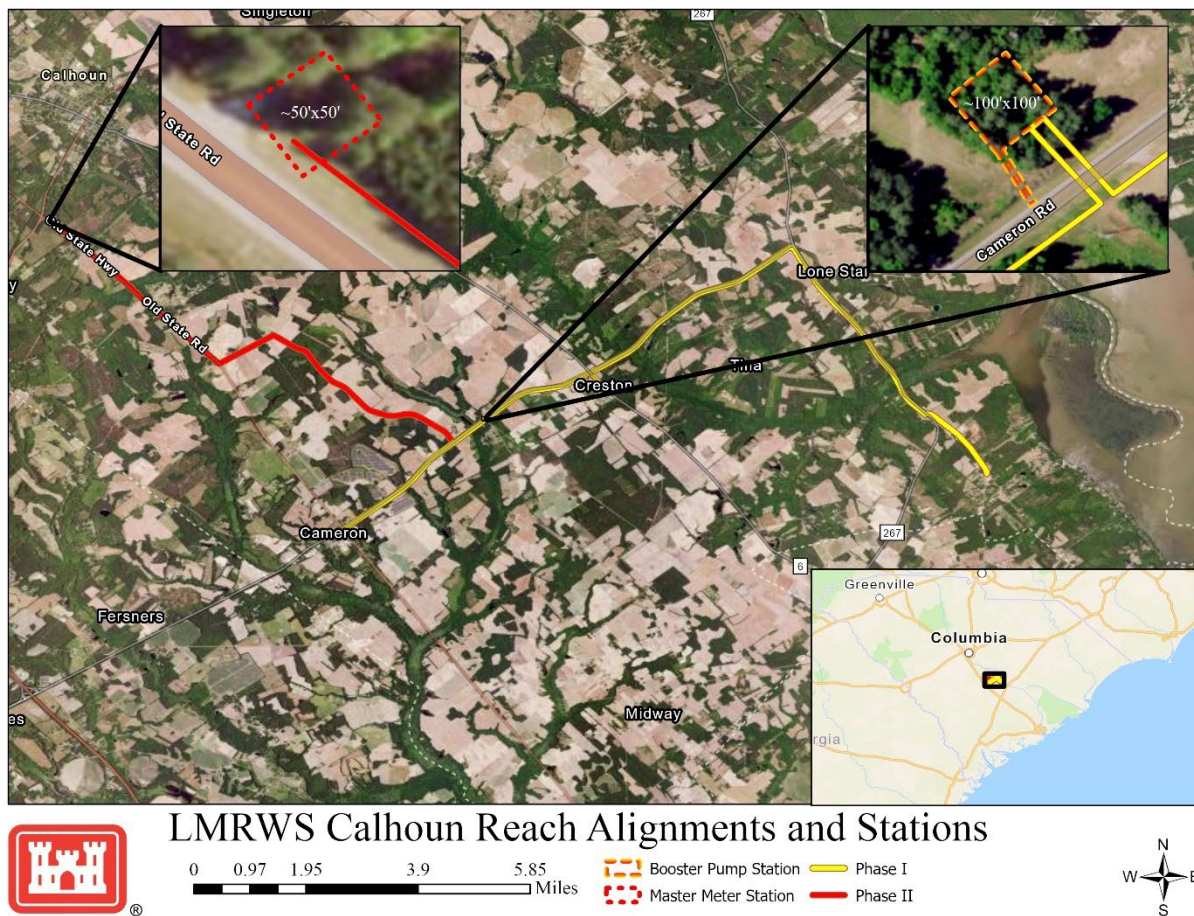
Under the Proposed Action Alternative, expansion of the LMRWS into municipalities of Calhoun County will occur in two phases. Specifically, USACE, working in cooperation with the LMRWA, Santee Cooper, and Calhoun County, is proposing to construct an extension to an existing potable water transmission main near the Town of Elloree. This project would be conducted in two phases with the first extending the water transmission main to the north and west approximately 70,522 feet (13.4 miles) to the town of Cameron, as well as about 988 feet (0.2 miles) off Old Number Six Hwy to the Calhoun County EMS Station. The second phase would extend from Cameron Rd northwest about 41,225 feet (7.8 miles) to the Town of St. Matthews near Wertz Crossroad.

Phase I would begin with the installation of about 13.5 miles of a 12”-diameter potable water transmission main at the water tank serving northeastern Elloree, SC (80.5506203 W, 33.5753202 N)



where Old River Road forks with Tee Vee Road (Figure 2). This reach is referred to herein as the Cameron Reach. The proposed line extends north approximately 1.4 miles along Old River Rd to where Old River Rd meets McCords Ferry Rd (SC-267). The proposed line then crosses McCords Ferry Rd and continues north 3.5 miles to Lone Star. From Lone Star, the proposed line extends west along Cameron Rd (SC-33) about 3.7 miles where the line branches in Creston and continues south for about 0.2 miles on Old Number Six Hwy (SC-6) to the Calhoun Co EMS station (80.6485797 W, 33.5984476 N). This short branching to the EMS station is herein referred to as the Calhoun Co EMS/Creston Service Reach. The proposed line continues west about 1.8 miles on Cameron Rd before splitting perpendicular to the proposed location of a booster station near Nates Store Rd (80.677176 W, 33.589036 N). The proposed line then continues west about 2.9 more miles on Cameron Rd. crossing Old State Rd. and terminating in Cameron (80.7133975°W, 33.5609603°N).

Phase II construction would consist of about 7.8 miles of line and originate from a valve in the Cameron Reach line at the intersection of Cameron Rd and Mossdale Rd (80.6849621°W, 33.5831681°N). The proposed line continues along Mossdale Rd north about 3.5 miles to Belleville Rd. The proposed line would continue on Belleville Rd going west about 0.9 miles until it reaches Old State Rd (US Highway 176). The proposed line would follow Old State Rd north about 3.4 miles to its terminus at the location of a proposed master meter station (80.786774 W, 33.638869 N).



*Figure 2. Calhoun Reach Proposed Alignments and Stations*

The proposed construction will largely consist of creating an excavated trench (about 4' width) and placement of pipeline followed by a 3-ft backfill cover, while directional drilling or jack-and-bore will be used where appropriate (i.e. wetlands, sensitive areas, etc.). In total, the estimated impacts to seven freshwater streams and two freshwater wetlands comprise 0.0096 acres and 28 linear feet, respectively. Twelve additional streams and six wetlands will be avoided using HDD and jack-and-bore methods. All construction areas would be returned to grade once work is completed, and the areas would be maintained with herbaceous vegetation. All staging areas would be located in uplands. Notably, tree removal would largely be limited to narrow strips encroaching into existing DOT ROW and where necessary at the locations of the proposed booster pump station (expected to be about 100'x100') and master meter station (expected to be about 50'x50').

Water for both phases would be supplied from an existing water treatment plant located on Lake Marion near the Town of Santee. The water treatment plant became operational in 2008 and has the capacity to support the increased water supply needs from construction of the proposed project.

### **2.3. No Action Alternative**

The No Action Alternative is the same as the most probable future without constructing the proposed project. A basic alternative to any proposed plan of improvement is the "No Action" alternative. Adoption of this alternative implies acceptance of the existing conditions in the proposed project area<sup>1</sup>.

### **2.4. Alternatives Considered but Eliminated**

#### *Provide Service from Nearby Systems*

There are three existing water systems in the region that could potentially supply the needs of the LMRWA. They include:

- Orangeburg DPU
- City of Sumter
- Lake Moultrie Water System

Orangeburg DPU utilizes a surface water treatment plant. The raw water source is the North Fork of the Edisto River. The Orangeburg DPU system would require expansion in order to meet the needs of the LMRWS. The treatment facility is also located on the perimeter of the LMRWS project area, which would increase the cost of the transmission system.

The City of Sumter uses ground water as the raw water source. The city operates treatment plants for the ground water supply. There has been concern expressed regarding the long-term utilization and expansion of the use of the aquifer. The existing capacity of the Sumter system would need to be expanded in order to provide water to the LMRWS. The system is also located on the perimeter of the project area, which would increase the cost of the transmission system.

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<sup>1</sup> The "project area" is defined as the area of direct overlap with the spatial extent of proposed actions.

The Lake Moultrie water system operates a surface water treatment plant. The raw water source is Lake Moultrie, the second in the two-part Santee Cooper Lake system. The Lake Moultrie facility would need to be expanded in order to meet the needs of the LMRWS. The raw water source is adequate for the proposed expansion. The Lake Moultrie system is located in Moncks Corner in Berkeley County, which is considerably further from project area than Lake Marion. The location of the facility in relation to the LMRWS project area would increase the cost of the transmission system.

In reviewing these systems in relation to their ability to provide service to LMRWA, there were two common themes that were consistent for each facility: (1) each facility is located on the perimeter of the LMRWA service area; and (2) each system would have to be expanded to meet the future needs of the LMRWA. The distance that the treatment facility is located from the service area increases transmission cost, as well as raises water quality issues related to detention time in the pipe systems. The option of using one of the systems to serve the entire LMRWS service area is not feasible for both reasons stated above. Furthermore, the option of either expanding the water treatment facilities or bulk purchasing water from the three larger systems presents additional cost issues. Specifically, the cost of expansion of the existing facilities would be greater than the cost of constructing a new water treatment plant. The Lake Marion Regional Water Agency Environmental Information Document (USACE 2003b) provides additional details on the cost analysis associated with the formation of the LMRWS, and this document is incorporated by reference in this EA. Notably, bulk-purchasing water would also take away the control that the LMRWA would have over the cost of providing water to its citizens. This alternative is also more costly as compared to other alternatives. Therefore, this alternative was deemed not feasible and was not considered further.

### *Construction of Additional Wells*

In order to satisfy the projected water demand in the study area, additional wells would be required. This alternative would involve additional water transmission lines, construction of additional storage tanks, and other facilities in the treatment of well water. The existing wells located in the study area have sufficient capacity to meet current demands; however, the ability to meet future water demands are dependent on the available quantity, quality, and impact of proposed drinking water regulations on current treatment methods. Notably, the construction of additional wells and the associated clearing of upland (and potentially wetland areas) has the potential to adversely impact forested habitat and/or fish and wildlife resources. The Lake Marion Regional Water Agency Environmental Information Document (USACE 2003b) provides an additional discussion on potential water well alternatives, and this document is incorporated by reference in this EA.

The primary feasibility concern with installing additional wells is the monetary costs of maintaining the additional wells to satisfy the current and future water regulations. In addition, this alternative was not selected based on the following feasibility concerns:

- This alternative has the potential to substantially impact the current aquifers system by heavy or concentrated pumping.
- The alternative creates additional costs for installing, maintaining, and operating additional wells.
- The risk of introducing additional treatment methods from this alternative would further expose the environment to the possibility of toxic leaks into the groundwater (e.g. chlorination).



- The Safe Drinking Water Act requires monitoring of all public water systems for the purpose of health protection. The cost of monitoring the multiple groundwater supplies is greater than would be for the regional water system.

The Proposed Action Alternative and the No Action Alternative are the only alternatives that were evaluated in detail below.

### **3. EXISTING CONDITIONS**

#### **3.1. Scope of the Environmental Assessment**

USACE has prepared this EA in compliance with NEPA and associated implementing regulations to evaluate the potential environmental effects of the alternatives considered herein to the following environmental resources:

- Air Quality and Noise
- Climate
- Cultural Resources
- Hazardous, Toxic and Radioactive Waste
- Land Use
- Water Resources & Aquatic Habitat
- Socioeconomics and Environmental Justice
- Terrestrial Resources and Wildlife
- Threatened & Endangered Species

#### **3.2. Air Quality and Noise**

The Clean Air Act (CAA), which was last significantly amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA established two types of NAAQS - primary and secondary. Primary standards are established by the EPA to protect public health including the health of sensitive populations like asthmatics, children, and elderly. Secondary standards are established to protect public welfare including protection from decreased visibility and damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards has set NAAQS for six principal pollutants called “*criteria*” pollutants. Those pollutants are carbon monoxide, lead, nitrogen oxides, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), ozone and sulfur dioxide. All air pollutants are listed as in attainment for Calhoun County (EPA 2024).

The area is not densely populated or heavily industrialized. Traffic is the predominant source of noise in the project area. Naturally occurring noises (e.g. buzzing of insects, bird calls, etc.) are common within the project area.

#### **3.3. Climate**

The climate in Calhoun County is relative to that of much of the Coastal Plain region of South Carolina. The SC State Climatology Office within South Carolina Department of Natural Resources (SCDNR) maintains climate data statewide, where from 1991-2020, Calhoun County averaged 81-83°F daily

temperatures in the summer (daily min. of 72-74°F, daily max of 90-92°F) and 48-50°F daily temperatures in the winter (daily min. of 36-38°F, daily max of 60-62°F). The county also reported receiving an average annual precipitation of 45-48", with rainfall occurring predominately between spring and fall and peaking in summer.

In general, the state has warmed by 0.5-1°F over the last century and the sea is rising about 1-1.5" every decade (EPA 2016). Precipitation occurs chiefly as rainfall and averages about 49.5" annually with approximately one-third of that total occurring during the months of June, July, and August. It is expected that in the coming decades changing climate in South Carolina will lead to an increase in the number of unpleasantly hot days, an increase in heat related illness, an increase in inland flooding, a decrease in crop yields, and harm to livestock (EPA 2016).

### **3.4. Cultural Resources**

Federal agencies are required by NEPA to consider the possible effects of their actions on cultural resources. Federal agencies are also required by Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, to consider the potential effects of their undertakings on historic properties (a subset of cultural resources). A historic property is any historic or prehistoric district, site, building structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior.

In fulfillment of NHPA Section 106 obligations, a subcontractor, Terracon, performed cultural resources surveys in the area of potential effects (APE)<sup>2</sup> including archaeological resource surveys. The findings of these surveys are included in architectural survey reports for each phase of the project with the APE separated among the two phases. Phase I is defined as the 13.4-mi project corridor and properties located within or directly adjacent to the corridor of Cameron Reach, and likewise for the St. Matthews Reach and associated booster station and master meter stations. The findings documented in the survey reports were reviewed and included in consultation with the State Historic Preservation Office (SHPO), South Carolina Institute for Archaeology and Anthropology (SCIAA) and appropriate Tribal Nations.

### **3.5. Hazardous, Toxic, and Radioactive Waste**

Hazardous waste is defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as any substance which may present a significant danger to public health and/or environment if released. At least two hazardous and toxic release sites are known to occur within a mile of the project area. Within the Phase I review area, Helena Chemical Co. is located on North Lawton Drive approximately 0.2 miles from the Cameron Reach transmission main. The company is listed by EPA's Enforcement and Compliance History Online (ECHO) as a farm supplies provider and has no record of violations or additional data. Within the Phase II action area, Morton Custom Plastics is located off Country Club Road approximately 1 mile from the St. Matthews Reach transmission main. The company is listed by ECHO as an unlaminated plastic producer and has no record of violations or

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<sup>2</sup> The "area of potential effects (APE)" is defined in the Advisory Council on Historic Preservation's (ACHP) regulations implementing the Section 106 review process as "*The geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.*" (36 C.F.R. Part 800.16(d)).

additional data. A site inspection of the project area was conducted by USACE staff and no abandoned gas stations were identified.

### 3.6. Land Use

In order to assess land uses throughout the project area, a 50' buffer area was analyzed around the proposed alignment and characterized using data from the U.S. Geological Survey (USGS) 2021 National Land Cover Database (NLCD) (USGS 2023).

Most land cover within the action area consists of some form of development, though there is also a variety of habitat types that may exist within a 50 feet buffer (Table 1). Roughly 76% of the 259 acres within 50 ft of the proposed alignments is some form of developed land cover (mostly open space followed by low, medium and high intensity, respectively). Habitat features within this area include around 32 acres of cultivated crops, 12 acres of evergreen forest, 11 acres of woody wetland, 3 acres of scrub/shrub, and 2 acres each of herbaceous and pasture covers. Smaller plots of similar habitat types also occur within this area. At the landscape scale, many of these habitat types occur as patches fragmented by developed spaces.

*Table 1. List of land cover types within 50' of each proposed transmission main as described by USGS NLCD*

Project Phase/Area	NLCD Land Cover Type	Acreage
Phase I	Cameron Reach	Developed, Open Space
		61.61
		Developed, Low Intensity
		45.46
		Cultivated Crops
		20.08
		Developed, Medium Intensity
		10.72
		Woody Wetlands
		9.14
		Evergreen Forest
		7.41
		Shrub/Scrub
		2.50
Phase II	St. Matthews Reach	Herbaceous
		1.97
		Hay/Pasture
		1.75
		Developed, High Intensity
		0.67
		Deciduous Forest
		0.35
		Mixed Forest
		0.02
Phase I	Calhoun Co EMS/Cr	Emergent Herbaceous Wetlands
		<0.01
		Developed, Low Intensity
		1.27
		Cultivated Crops
		0.72
		Developed, Medium Intensity
		0.27
		Developed, Open Space
		0.19
Phase II	St. Matthews Reach	Developed, Open Space
		45.56
		Developed, Low Intensity
		24.66
		Cultivated Crops
		11.97
		Developed, Medium Intensity
		5.19
		Evergreen Forest
		5.01
Phase II	St. Matthews Reach	Woody Wetlands
		1.38
		Deciduous Forest
		0.54
		Shrub/Scrub
		0.44
		Developed, High Intensity
		0.02
		Hay/Pasture
		0.01

### *Farmland Protection Policy Act*

The Farmland Protection Policy Act (FPPA) (Public Law 97-98, 7 U.S.C. §§ 4201 et seq) was enacted to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion

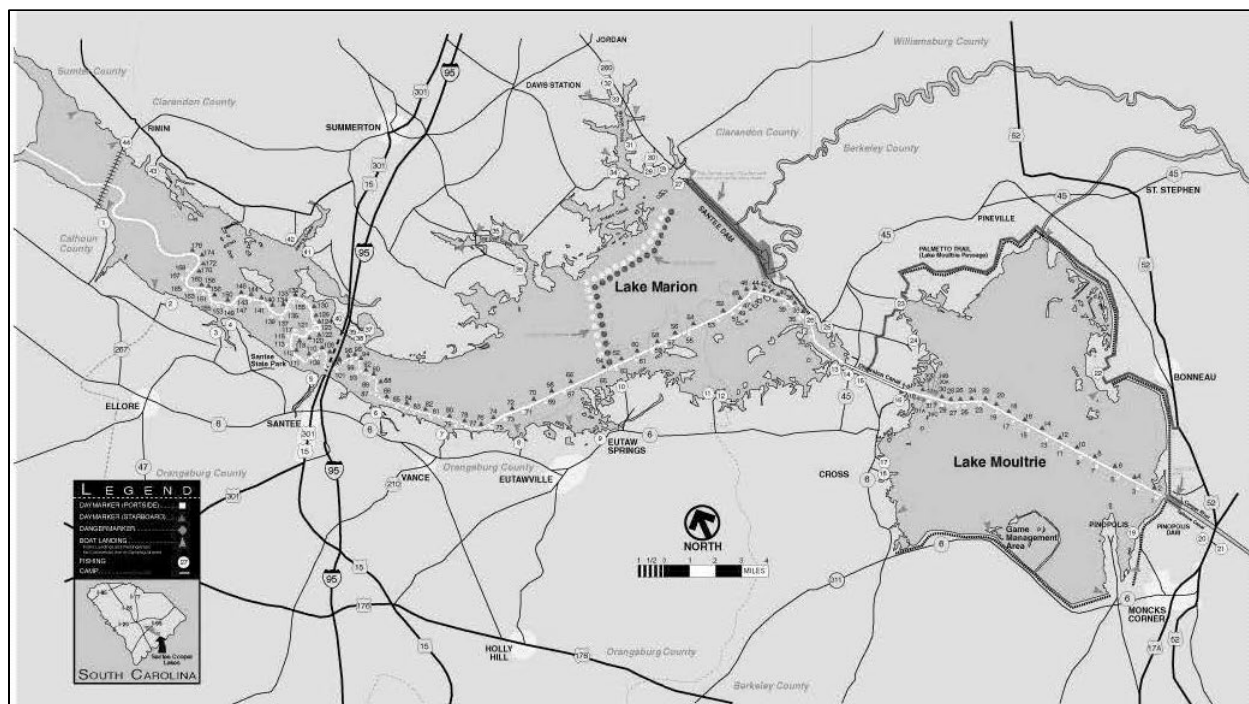
of farmland to nonagricultural uses, and to assure that Federal programs are administered in a manner that will be compatible with State, local government and private programs and policies protecting farmland. Federal agencies must comply with the US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) guidelines set forth in 7 C.F.R. Part 658.

In order to determine potential impacts to lands defined as “*farmland*” (7 C.F.R. 658.2(a)), a 2 ft. buffer extending in each direction of the proposed alignment, and the area of the proposed stations were analyzed for farmland using the Soil Survey Geographic Database (SSURGO) (USDA 2024). Accordingly, the alignment and stations overlap with approximately 6.1 and 0.2 acres of land identified as prime farmland and 2.0 and 0.04 acres of farmland of statewide importance, respectively.

### 3.7. Water Resources and Aquatic Habitat

#### *Water Source*

The water source for this project (Calhoun Reach) is Lake Marion (Figure 3). Lake Marion was created through the construction of a dam on the Santee River. The Santee River is fed by the Congaree River and the Wateree Rivers. The Congaree River is fed by the Saluda/Broad Rivers with headwaters in the mountains of North Carolina. The Wateree River is fed by the Catawba River, which also has headwaters in the mountains of North Carolina. Lake Marion was completed in the 1940’s as a part of a two-lake system. The largest lake, Lake Marion, covers an area of approximately 100,000 acres while the smaller Lake Moultrie covers approximately 65,000 acres. The two lakes comprise one of the largest freshwater reservoirs in the southeastern U.S. and have an average annual inflow of approximately 15,000 cubic feet per second.



*Figure 3. Map of Santee Cooper Lakes, Lake Marion (left) and Lake Moultrie (right)*

Since 1993, the Santee Cooper Lake project has provided adequate water supply for central and coastal South Carolina. Earlier constructions at Lake Moultrie included a surface water treatment plant. A newer water treatment plant was recently constructed on the Santee Cooper System during the second phase of the LMRWS. There are also existing water treatment plants on the Wateree/Catawba River system and the Congaree/Saluda/Broad River system upstream of the lakes. The raw water quality provided by this broader system is excellent, thus minimizing treatment costs.

### *Water Quality*

Approximately 10 mi (45%) of the proposed project area lies within the Four Hole Swamp watershed (hydrologic unit code [HUC]-8: 03050205) (Figure 4). Some streams and tributaries cross-section the project area, including from the main tributary of Four Hole Swamp, which originates near the Town of Cameron and receives drainage from nearby Flea Bite Creek (including Cook Branch). The majority of crossings occur through waterbodies that are classified by the South Carolina Department of Environmental Services (SCDES) (previously the South Carolina Department of Health and Environmental Control, aka SCDHEC) as “FW” (i.e. freshwater that is suitable for primary and secondary contact recreation and as a source of drinking water supply after treatment). Although downstream of Flea Bite Creek, not all water uses are fully supported. Other portions of the Four Hole Swamp watershed are included on the Clean Water Act (CWA) Section 303(d) list as impaired or have been designated as areas of Total Maximum Daily Load (TMDL).

Approximately 12 mi (55%) of the proposed project area lies within the Lake Marion watershed (HUC-8: 03050111). Phase I of the project occupies about 9.6 mi of the Lake Marion watershed, where it crosses Halfway Swamp Creek at two locations as well as three of its tributaries. The remaining 2.5 mi of project area in this watershed occurs in Phase II of the project area where it crosses Lyons Creek (tributary of Halfway Swamp Creek). All crossings occur where water classifications are “FW”. At the crossing in the upstream portion of Halfway Swamp Creek, fecal coliform excursions have been documented and does not support recreational uses. Downstream of here at the mouth to the Santee River, aquatic life uses are also not supported due to total phosphorus excursions.



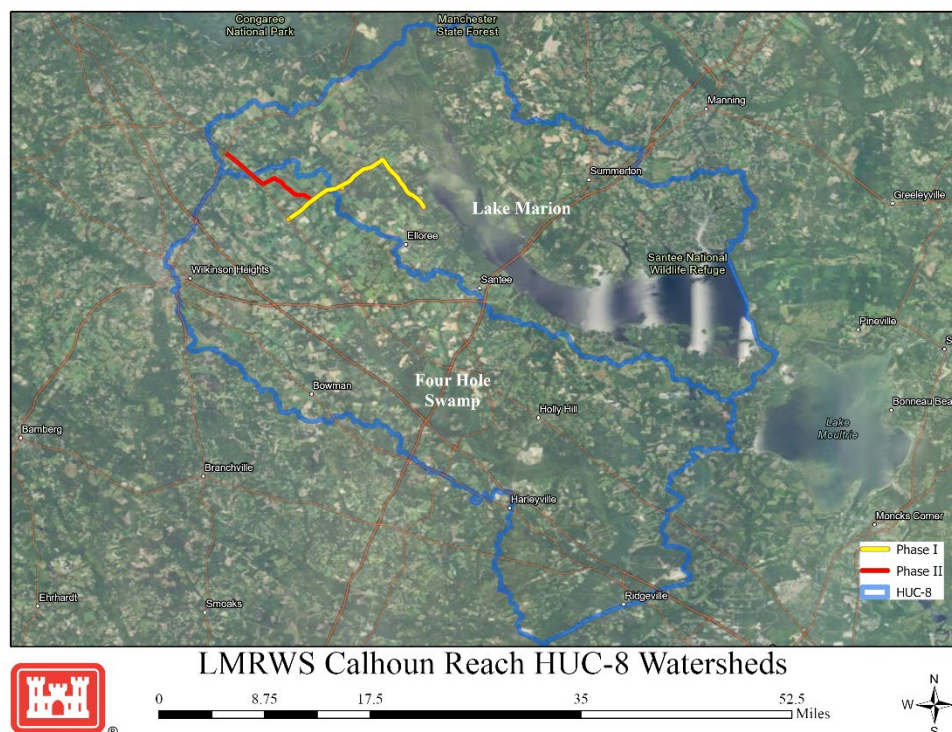


Figure 4. HUC-8 Watersheds enclosing project area

### Wetlands and Streams

Waterbodies enclosing the project area consist mostly of freshwater forested/shrub wetlands, with some freshwater pond and freshwater emergent wetlands as well (USFWS 2024). Phase I construction will intersect portions of the Lower Halfway Swamp Creek and Flea Bite Creek-Four Hole Swamp, while Phase II construction will intersect portions of the Flea Bite Creek-Four Hole Swamp and Upper Halfway Swamp Creek. These watersheds possess predominately palustrine systems set in forested classes of wetlands consisting largely of broad-leaved deciduous plant communities (>50% of wetlands). These wetlands are mostly flooded on a seasonal basis or only temporarily. During dry years, the networks of streams and tributaries feeding into the larger creeks provide critical areas for a variety of wildlife species. Some aquatic species of conservation priority in the state of South Carolina can be found in these wetlands and include species of freshwater fish, diadromous fish, crayfish, freshwater mussels and more (Table 2).

Plant community types vary in wetlands of the action area depending on periods of flooding and local topography. Seasonally flooded forests are often flooded for long periods of time during the growing season. Typical plant community species compositions in seasonally flooded forests consist of water oak (*Quercus nigra*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*) and sweetgum (*Liquidambar styraciflua*) in drier areas, and overcup oak (*Quercus lyrata*), water hickory (*Carya aquatica*), water tupelo (*Nyssa aquatica*), swamp tupelo (*Nyssa biflora*) and bald cypress (*Taxodium distichum*) in wetter areas (USFWS 2008). Temporarily flooded forests remain flooded throughout the winter and for brief periods during the spring and are often at higher elevations. In temporarily flooded forests, plant community species compositions consist of swamp chestnut oak (*Quercus michauxii*), water oak, cherrybark oak (*Quercus pagoda*), loblolly pine (*Pinus taeda*), several species of hickories (*Carya*

spp.), white oak (*Quercus alba*), tulip poplar (*Liriodendron tulipifera*), ironwood (*Carpinus caroliniana*), sycamore (*Platanus occidentalis*), and sweetgum (USFWS 2008).

Other plant species of conservation priority may occur throughout the lower watersheds of the action area. These include may white azalea (*Rhododendron eastmanii*), Eastern shooting star (*Primula meadia*), tall bellflower (*Campanulastrum americanum*), kidneyleaf mud-plantain (*Heteranthera reniformis*), big three-awn (*Aristida condensata*), bog bunchflower (*Melanthium virginicum*) and Carolina least trillium (*Trillium pusillum*) (SCNHP 2024).

*Table 2. List of aquatic species of conservation priority found in the action area*

Taxon	Common Name	Species Name	SWAP Priority (2015) <sup>1</sup>	HUC-12		
				Lower Halfway Swamp Creek	Upper Halfway Swamp Creek	Flea Bite Creek
Fish	Flat bullhead	<i>Ameiurus platycephalus</i>	Moderate	✓	✓	✓
	Snail bullhead	<i>Ameiurus brunneus</i>	Moderate		✓	
	Blueback herring	<i>Alosa aestivalis</i>	Highest	✓		
	Swampfish	<i>Chologaster cornuta</i>	Moderate	✓		
	Rosyside dace	<i>Clinostomus funduloides</i>	Moderate		✓	
	Sawcheek darter	<i>Etheostoma serrifer</i>	Moderate	✓		✓
	Ironcolor shiner	<i>Notropis chalybaeus</i>	Moderate		✓	✓
	American eel	<i>Anguilla rostrata</i>	Highest			✓
Crustaceans	Pine savannah crayfish	<i>Cambarus reflexus</i>	Highest	✓		✓
	Cedar Creek crayfish	<i>Procambarus chacei</i>	Moderate	✓		
	Shaggy crayfish	<i>Procambarus hirsutus</i>	Moderate	✓	✓	✓
Mollusks	File campeloma	<i>Campeloma limum</i>	-	✓		
	Lapped elimia	<i>Elimia dislocata</i>	-		✓	
	Dusky ancyliid	<i>Laevapex fuscus</i>	-	✓	✓	
	Marsh rams-horn	<i>Planorbella trivolvis</i>	-		✓	
	American ribbed fluke snail	<i>Pseudosuccinea columella</i>	-		✓	
	Variable spike	<i>Elliptio icterina</i>	Moderate	✓		

**Note:** This list is not intended to be comprehensive and is only intended to serve as a baseline of species presence data. **Source:** SCNHP 2024.

<sup>1</sup>SWAP Priority (2015) refers to the South Carolina's Priority Species list in Chapter 2 of South Carolina's State Wildlife Action Plan (SWAP) 2015 (SCDNR 2014).

### 3.8. Socioeconomics and Environmental Justice

The goal of environmental justice is to ensure that all Americans are afforded the same degree of protection from environmental and health hazards and have equal access to the decision-making process to maintain a healthy environment in which to live, learn, and work. Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs Federal agencies, to the greatest extent practicable and permitted by law, to address environmental and human health conditions in minority and/or low-income communities with the goal of achieving environmental justice. Of additional relevance, EO 13045 requires the protection of children from environmental health risks and safety risks. Federal agencies are to “...identify and assess environmental health risks and safety risks that may disproportionately affect children...” and “...ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.”

The proposed project is located within Calhoun County and passes through two USCB census tracts (45017950200 and 45017950400). As of July 1, 2023, the total population estimate for Calhoun County is

14,165 which is an approximate 0.3% annual increase (USCB 2022) (Table 3). Total minority populations (i.e. all non-white and non-Hispanic or Latino racial groups) combined comprise approximately 45.3% of the population in Calhoun County.

*Table 3. Population Demographics within Calhoun County*

<b>Demographics</b>	<b>Statistic</b>
Population (July 2023)	14,186
Population (April 2020)	14,122
Population Percent Change	0.5%
White	57.9%
Black or African American	39.3%
American Indian and Alaskan Native	0.7%
Asian	0.5%
Native Hawaiian and Other Pacific Islander	0.1%
Total Housing Units (July 2023)	7,084

According to the Council on Environmental Quality’s Climate and Economic Justice Screening Tool (accessed June 10, 2024), one of the census tracts bounding the project area is classified as disadvantaged. Census Tract 45017950400 is identified as disadvantaged in four categories, energy, health, transportation, and water and wastewater.

Communities are identified as disadvantaged in the energy category if they are above the 90<sup>th</sup> percentile of energy cost; or below the 90<sup>th</sup> percentile of PM2.5 in the air; AND above the 65<sup>th</sup> percentile of low income.

Communities are identified as disadvantaged in the health category if they are below the 90<sup>th</sup> percentile of expected asthma, heart disease, or low life expectancy; or above the 90<sup>th</sup> percentile of diabetes; AND above the 65<sup>th</sup> percentile of low income.

Communities are identified as disadvantaged in the transportation category if they are: below the 90<sup>th</sup> percentile of diesel particulate matter exposure or traffic proximity and volume; or above the 90<sup>th</sup> percentile of transportation barriers; AND above the 65<sup>th</sup> percentile of low income.

Communities are identified as disadvantaged in the water and wastewater category if they are: below the 90<sup>th</sup> percentile of underground storage tanks and releases; or above the 90<sup>th</sup> percentile of wastewater discharge; AND above the 65<sup>th</sup> percentile of low income.

### **3.9. Terrestrial Resources and Wildlife**

According to the citizen science wildlife reporting database, iNaturalist, over 756 species of plants and animals have been confirmed in Calhoun County, SC (Table 4) (iNaturalist 2024). Many of these species are not exclusive to Calhoun County, and discussion of presence/absence and local abundances of all species throughout the action area is beyond the scope of this document. Terrestrial vertebrate species listed as species of greatest conservation need (SGCN) in SCDNR’s 2015 State Wildlife Action Plan (SWAP) (SCDNR 2014) are discussed in detail below.



Table 4. iNaturalist data for Calhoun County, SC

Guild	Confirmed
Amphibians	14
Arachnids	25
Birds	84
Fungi	26
Insects	289
Mammals	18
Plants	273
Reptiles	27
<b>Total</b>	<b>756</b>

The project area consists mostly of developed types of land cover. These cover types are defined by USGS as areas with a mixture of constructed materials and vegetation, with impervious surfaces accounting for 20-79% of total cover. Aside from impervious surfaces, these cover types commonly include lawn grasses, various sized single-family housing units, parks, golf courses, and vegetation planted for recreation, erosion control, or aesthetic purposes.

Developed types of land cover are often dominated by non-native species of plants and wildlife and species that are well-adapted for urban co-existence with humans (McKinney 2006). Some naturalized and native species of wildlife are also common in developed areas, often because of adaptability to anthropogenic environments or as exploiters of abundant resources. Mammal SGCN that may occur here include up to nine species of bat as well as fox squirrel (*Sciurus niger*). Avian SGCN may include several cavity nesting birds such as Carolina chickadee (*Poecile carolinensis*), Carolina wren (*Thryothorus ludovicianus*), chimney swift (*Chaetura pelagic*), downy woodpecker (*Picoides pubescens*), pileated woodpecker (*Dryocopus pileatus*), purple martin (*Progne subis*), and red-bellied woodpecker (*Melanerpes carolinus*).

Much of the remaining project area consists of cultivated crops, evergreen forest and woody wetlands. Land cover types exist largely in a fragmented landscape with few contiguous habitat types. For that reason, species that thrive in ecotones and patchy habitat networks, or do not require large patches of contiguous habitat are expected to occur more within or near the project area.

Cultivated crops, as defined by USGS, are areas used for either annual crops (e.g. corn, soybean, cotton) or perennial woody crops (e.g. orchards), where crop vegetation is >20% of vegetation and includes actively tilled land. The pasture/hay cover type is defined as areas of grasses, legumes, or mixtures thereof planted for grazing or harvest where pasture/hay is >20% of vegetation. Collectively, these land cover types are occupied by species that exploit abundant resources or specialize in early succession habitats. The presence or absence of many species in these habitat types largely depends on the amount of specific habitat available and the distribution of habitats at the landscape level. In general, some of the aforementioned bat species and meadow vole (*Microtus pennsylvanicus*) are among the mammal SGCN that may occur in this cover type. Avian species that may occur in this cover type include cavity nesting birds (see species above); grassland birds like barn owl (*Tyto alba*), Eastern meadowlark (*Sturnella magna*), field sparrow (*Spizella pusilla*), grasshopper sparrow (*Ammodramus savannarum*), and loggerhead shrike (*Lanius ludovicianus*); and Northern bobwhite (*Colinus virginianus*).

Evergreen forest, as defined by USGS, are areas dominated by trees generally >5 m tall, and >20% of total vegetation cover where more than 75% of the tree species maintain their leaves all year. This cover type is often less dynamic than others mentioned above, occurring mostly as a mid- to late-successional stage. Mammals classified as SGCN that are more likely to occur here include black bear (*Ursus*

*americanus*) and some of the aforementioned bat species. Birds classified as SGCN that are more likely to occur in this cover type may include cavity nesting birds (see above); pine savanna birds including American kestrel (*Falco sparverius paulus*), Bachman's sparrow (*Aimophila aestivalis*), brown-headed nuthatch (*Sitta pusilla*), and pine warbler (*Dendroica pinus*); and the federally endangered red-cockaded woodpecker (*Picoides borealis*). Some amphibian or reptile SGCN may also occur in this cover type including pine snake (*Pituophis melanoleucus*), Southern hognose snake (*Heterodon simus*), Eastern diamondback rattlesnake (*Crotalus adamanteus*), coral snake (*Micrurus fulvius*), slender glass lizard (*Ophisaurus attenuatus*),

Woody wetlands provide habitat for a variety of birds, reptiles and amphibians classified as SGCN. USGS defines woody wetlands as areas where forest or shrubland vegetation accounts for >20% of vegetation and the soil or substrate is periodically saturated with or covered with water. Bat species mentioned above may occur here as well, while other mammal SGCN may include Eastern woodrat (*Neotoma floridana*), mink (*Mustela vison*), and star-nosed mole (*Condylura cristata*). Woody wetlands may serve as habitat for a large variety of birds of conservation need too numerous to list here. Amphibian or reptile SGCN may also occur in this cover type including Chamberlain's dwarf salamander (*Eurycea chamberlainii*), Florida green watersnake (*Nerodia floridana*), various freshwater turtles (e.g., yellow-bellied turtle (*Trachemys scripta*)), black swamp snake (*Seminatrix pygaea*), striped mud turtle (*Kinosternon baurii*), mud salamander (*Pseudotriton montanus*), four-toed salamander (*Hemidactylium scutatum*), pickerel frog (*Rana palustris*), Eastern box turtle (*Terrapene carolina*), pine barrens treefrog (*Hyla andersonii*), and a variety of pond-breeding amphibians (e.g., upland chorus frog (*Pseudacris feriarum*)).

Review of the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) database (<https://ecos.fws.gov/ipac/>) resulted in identification of 23 migratory birds of conservation concern (BCC) that may occur in the project area (Table 5).

*Table 5. USFWS birds of conservation concern identified as occurring in the project area*

Common name	Scientific name	Breeding season
American kestrel	<i>Falco sparverius paulus</i>	Apr 1 – Aug 31
Bachman’s sparrow	<i>Aimophila aestivalis</i>	May 1 – Sep 30
Bald eagle	<i>Haliaeetus leucocephalus</i>	Sep 1 – Jul 31
Brown-headed nuthatch	<i>Sitta pusilla</i>	Mar 1 – Jul 15
Chimney swift	<i>Chaetura pelagica</i>	Mar 15 – Aug 25
Chuck-will’s-widow	<i>Antrostomus carolinensis</i>	May 10 – July 10
Coastal (Wayne’s) black-throated green warbler	<i>Setophaga virens waynei</i>	May 1 – Aug 15
Eastern whip-poor-will	<i>Antrostomus vociferus</i>	May 1 – Aug 20
Grasshopper sparrow	<i>Ammodramus savannarum perpallidus</i>	Jun 1- Aug 20
Henslow’s sparrow	<i>Ammodramus henslowii</i>	Breeds elsewhere
Kentucky warbler	<i>Oporornis formosus</i>	Apr 20 – Aug 20
King rail	<i>Rallus elegans</i>	May 1 – Sep 5
Le Conte’s sparrow	<i>Ammospiza leconteii</i>	Breeds elsewhere
Lesser yellowlegs	<i>Tringa flavipes</i>	Breeds elsewhere
Painted bunting	<i>Passerina ciris</i>	Apr 25 – Aug 15
Pectoral sandpiper	<i>Calidris melanotos</i>	Breeds elsewhere
Prairie warbler	<i>Dendroica discolor</i>	May 1 – Jul 31
Prothonotary warbler	<i>Protonotaria citrea</i>	Apr 1 – Jul 31
Red-headed woodpecker	<i>Melanerpes erythrocephalus</i>	May 10 – Sep 10
Rusty blackbird	<i>Euphagus carolinus</i>	Breeds elsewhere
Short-billed dowitcher	<i>Limnodromus griseus</i>	Breeds elsewhere
Swallow-tailed kite	<i>Elanoides forficatus</i>	Mar 10 – Jun 30
Wood thrush	<i>Hylocichla mustelina</i>	May 10 – Aug 31

### ***Bald and Golden Eagle Protection Act***

The Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d), enacted in 1940, prohibits anyone, without a permit issued by the Secretary of the Interior, from "*taking*" bald or golden eagles, including their parts (i.e. feathers), nests, or eggs. The Act defines "*take*" as "*pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.*" Regulations further define "*disturb*" as "*to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior*" (50 C.F.R. 22.6). The USFWS has elaborated on the application of this statute with the following: "*In addition to immediate impacts, this definition also covers effects that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.*"

Bald eagles are also listed as threatened species in the state of South Carolina (S.C. Code Ann. § 50-15-30) under S.C. Code Regs. § 123-150.2 and are listed as high SWAP priority by SCDNR (2014).

According to data from the South Carolina Natural Heritage Trust (SCNHP 2024), there is at least one known breeding location for bald eagles near the project area along Lake Marion. According to eBird (2023), bald eagles have also been observed along Halfway Stump Creek and locations in Elloree near Lake Marion.

### 3.10. Threatened and Endangered Species

The Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. §§ 1531-1543), was passed to conserve the ecosystems upon which endangered and threatened species depend, and to conserve and recover those species. An endangered species is defined by the ESA as any species in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered within the foreseeable future throughout all or a significant part of its range. Critical habitats, essential to the conservation of listed species, also can be designated under the ESA. The ESA establishes programs to conserve and recover endangered and threatened species and makes their conservation a priority for federal agencies. Section 7 of the ESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) when their proposed actions may affect endangered or threatened species or their critical habitats.

Federally listed species under the jurisdiction of USFWS were identified using the USFWS' Information for Planning and Consultation (IPaC) tool (list received June 5, 2024) (Table 6). Only suitable habitat for the tricolored bat and red-cockaded woodpecker were identified in the action area. No designated critical habitat occurs withing or adjacent to the action area. No species or critical habitat under the jurisdiction of NMFS occur within the action area.

*Table 6. Federal and state listed species under jurisdiction of USFWS near the project area*

Common name	Scientific name	Status <sup>1</sup>		SWAP Priority	Habitat Present	Determination <sup>2</sup>
		Federal	State			
Tricolored bat	<i>Perimyotis subflavus</i>	PE	-	Highest	Yes	MANLAA
West Indian manatee	<i>Trichechus manatus</i>	T	E	Highest	No	NE
Red-cockaded woodpecker	<i>Dryobates borealis</i>	E	E	Highest	Yes	MANLAA

<sup>1</sup>Statuses are abbreviated as PE = proposed endangered, T = threatened, and E = endangered

<sup>2</sup>Determinations are abbreviated as MANLAA = "may affect, not likely to adversely affect" and NE = "no effect"

#### *Tricolored bat*

The tricolored bat is a colonial cavity roosting species of bat that primarily occupies the forested coastal plains during the warmer breeding season and overwinters in cavernous structures. This species of bat is nocturnal and feeds on insects in groups and rests during daylight hours in maternity colonies consisting of females and young and of numbers around 30-60 (Whitaker and Mumford 2009), or singly or small groups in the case of males and non-reproductive females (Nagorsen and Brigham 1993). This often takes place in tree cavities and under bark of trees (Mumford and Cope 1964; Menzel et al. 2002; Briggler and Prather 2003). The greatest threat currently to the species is a fungus, *Pseudogymnoascus destructans*, which causes disease called white-nose syndrome. This disease is most closely associated with species of bat that hibernate (or undergo torpor) in caves during the winter where the fungus may be prevalent. This disease has been responsible for the listing of numerous bat species under the ESA in recent years as it has led to declines of <90% of species populations in some cases (Blehert et al. 2009). Primary stressors for the species include white-nose syndrome, wind energy mortality, effects from climate change and habitat loss (USFWS 2021).

The tricolored bat is found throughout eastern Canada south along the eastern US and into Mexico, and then west to the Great Lakes and Texas. The species is found statewide in South Carolina (Menzel et al. 2003). The species uses open woods where there is sparse vegetation (Nowak 1999; Loeb and O'Keefe 2006). Carter et al. (1999) found the species used cavities of bottomland hardwood tree species including swamp chestnut oak, sweetgum, and laurel oak (*Quercus laurifolia*), and they have been documented

using Spanish moss (*Tillandsia usneoides*) in understory trees on exposed high-marsh hammocks (Menzel et al. 1999). While foraging, tricolored bats tend to forage over riparian areas, lakes and ponds, and grass-brush habitats (Menzel et al. 2005).

According to data from the South Carolina Natural Heritage Trust (SCNHP 2024), tricolored bat presence and hibernacula are known within approximately half a mile of at least two points along the proposed route in wetland habitats.

### *Red-cockaded Woodpecker*

The red-cockaded woodpecker is a relatively small woodpecker. Both male and female adult red-cockaded woodpeckers are black and white with a ladder back and large white cheek patches. This woodpecker relies on mature pine forests in the southeastern U.S. throughout their life history, including all aspects of foraging, roosting, and breeding. This species was common when open, old-growth pine—particularly longleaf pine—forests were maintained by natural wildfires.

Currently, the greatest threat to red-cockaded woodpecker continues to be habitat loss and/or a lack of unfragmented connected suitable habitats. In particular, availability of key habitat features limits opportunities for population growth. For instance, the red-cockaded woodpecker is the only North American woodpecker that nests and roosts in cavities excavated from living pines (Steirly 1957; Jackson 1977). In pines, resin in outer sapwood layers make inner heartwood layers the only suitable substrate for nesting and roosting, thus requiring heartwood of trees to be of sufficient size (i.e. age) (Conner et al. 2001). Furthermore, older stands of pine have higher incidences of heartwood decay which facilitates excavation. The species also prefers open stands with little to no hardwood midstory and few or no overstory hardwoods. Throughout their previous range, remaining forest habitat is consistently young, dense, and composed of loblolly pine, with substantially more hardwood and little to no herbaceous groundcover (Noel et al. 1998; Frost 2006).

Key features of foraging habitat have also led to the vulnerability of the species coinciding with development of the landscape. The majority of their diet consists of arthropods, which are generally obtained from outer bark of live pines and dead branches of live pines. Although these conditions are not rare, the source of these prey populations are found within ground cover (Hanula and Franzreb 1998), which is negatively associated with pine density (Hanula et al. 2000). Furthermore, arthropod abundance and biomass increases with age and size of pines (Hooper 1996; Hanula et al. 2000). Accordingly, suitable foraging habitat generally consists of mature pines with an open canopy, low densities of small pines, a sparse hardwood or pine midstory, few or no overstory hardwoods, and abundant native bunchgrass and forb groundcovers (USFWS 2020).

Red-cockaded woodpeckers live in groups that share, and jointly defend, territories throughout the year, while also breeding cooperatively. Each individual in a group has its own roost cavity, and the group usually nests in the breeding male's cavity. The aggregation of active and inactive cavity trees within the area defended by a single group is termed the cavity tree cluster (Conner et al. 2001). Expansion into new territories happens more frequently through “budding” or the splitting of an existing territory with cavity trees into two, rather than “pioneering” or the construction of a new cavity tree cluster.

Lack of suitable roosting, nesting and foraging habitat is largely attributable to legacy effects from historical logging, incompatible forest management, and conversion of forests to urban and agricultural uses (USFWS 2020). Except in rare instances, extant populations remain dependent on conservation actions, such as prescribed fire, forest management with compatible silviculture, placement and

maintenance of artificial cavities within existing clusters, creation of new recruitment clusters using artificial cavities and translocation and monitoring of population and habitat conditions.

According to data from the South Carolina Natural Heritage Trust (SCDNR 2024), red-cockaded woodpecker presence is known in some locations within a 5-10 mile radius of the project area.

## **4. ENVIRONMENTAL CONSEQUENCES**

### **4.1. Air Quality and Noise**

The SCDES Bureau of Air Quality has jurisdiction over air quality in the project area and issues and enforces permits under the authority of the CAA, South Carolina Pollution Control Act, and S.C. Code Regs. § 61-62 Air Pollution Control Regulations and Standards. The ambient air quality for Calhoun County has been determined to follow NAAQS and designated as an attainment area (most recently updated May 31, 2024) (EPA 2024).

#### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

#### *Proposed Action Alternative*

Under the Proposed Action Alternative, construction activities would cause temporary increases in exhaust and dust emissions as well as create noise pollution from equipment operations. However, since project construction would be conducted in along rural segments of roadway at a particular point in time and be limited to daylight hour operations in areas near dwellings, air quality and noise impacts would be localized and temporary. Upon completion of work activities in any area, air quality and ambient noise would be restored as construction equipment is moved away.

### **4.2. Climate**

#### *No Action Alternative*

The No Action Alternative would generally not contribute to any change in conditions of this resource. However, by limiting the amount and types of potable water supply to the region, continued dependence on groundwater supplies could limit climate resiliency of the region.

#### *Proposed Action Alternative*

The proposed project would not cause negative changes to the area's climate. The proposed project would increase the climate change resiliency of the area by providing a reliable, safe source of water that is more resilient to drought or other climate related impacts than the current water supply. The proposed project would also increase the resiliency of the local aquifer, and residents who would still depend on the aquifer for water, to climate change impacts as it would lead to a decrease in water withdrawn from the aquifer. Minimal amounts of greenhouse gases would be created during construction of the proposed project. Best management practices (BMPs) would be followed to reduce greenhouse gas emissions. Most areas cleared for construction would be allowed to re-vegetate and those areas would be able to sequester carbon in the future.



#### **4.3. Cultural Resources**

##### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

##### *Proposed Action Alternative*

A cursory review of the APE in the South Carolina ArchSite database maintained by SCIAA and the South Carolina Department of Archives and History (SCDAH) resulted in identification of no historic properties listed, or eligible for listing, in the National Register of Historic Places (NRHP) for purposes of Section 106 of the NHPA.

Phase I cultural resource surveys were performed to identify potential archaeological resources in the APE and findings summarized in reports for each phase of the project. These reports were entitled as *Phase I Cultural Resource Survey of Approximately 13.35 Miles for the Proposed Cameron to St. Matthews Water Main Project – Cameron Reach, Calhoun County, South Carolina* and *Phase I Cultural Resource Survey of Approximately 8.41 Miles for the Proposed Cameron to St. Matthews Water Main Project – St. Matthews Reach, Calhoun County, South Carolina* (dated July 2024).

The cultural resources surveys identified eight archaeological sites, 38CL117-124, fifteen historic architectural resources, SHPO Site Numbers 0069 through 0084, including 3 cemeteries (SHPO Site Nos. 0072/38CL125, 0077/38CL126, and 0078/38CL127), and 5 archaeological isolated finds. None of these resources are recommended as eligible for inclusion in the NRHP, with the exception of SHPO Site Number 0072, which is recommended as requiring additional research to determine National Register eligibility.

In a letter dated November 13, 2024, SHPO stated that based on the description of the undertaking's APE and the identification of historic properties in the APE, their office concurred with the assessment that no properties listed in or eligible for listing in the NRHP will be affected by this project.

In letters dated July 30, 2024, copies of the archeological survey reports were also distributed to Tribal Nations (see Section 6 for a full list). Responses were received from several Tribes and no concerns with respect to cultural resources were identified.

All correspondence between USACE and SHPO, SCIAA and the Tribes is included in Appendix A.

#### **4.4. Hazardous, Toxic, and Radioactive Waste**

##### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

##### *Proposed Action Alternative*

Since no soil will be removed or added from the alignment area of the utility line, no net change in HTRW will occur in the project area. Construction will only involve temporary disruption of the soil profile when the utility line is being placed, whereafter soil will be placed back over the same dug area.

No known sources of HTRW is known in the project area, therefore no related impacts to the project area are expected.

#### **4.5. Land Use**

##### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

##### *Proposed Action Alternative*

Temporary impacts to soils and erosion would potentially occur during construction and during the placement of water transmission mains. Erosion could increase in areas that require the clearing of vegetation. However, erosion prevention, sediment control, runoff and structural water quality control BMPs as outlined in the SCDES (previously SCDHEC) Stormwater Management BMP Handbook (SCDHEC 2005) will be applied to avoid and minimize potential impacts.

Construction of this proposed project would not change the existing geology of the area because the excavation cuts necessary to install water transmission mains are generally narrow (<4 ft.) and relatively shallow. Land use would remain largely unchanged after installation of the proposed project.

##### *Farmland Protection Policy Act*

The project would temporarily impact a total of about 6.3 acres of land classified as prime farmland and 2.0 acres of land classified as farmland of statewide importance. However, most of the impacted farmland would be limited to that which occurs along DOT ROWs and may already be compromised. These impacts are also not considered a permanent conversion of farmland as installation of the transmission main would temporarily disrupt soil but would be replaced up to 3 ft leaving much of the value of the soil intact. Permanent impacts to farmland soils would occur where stations are constructed, however, these would only impact about 0.3 acres of farmland and are exempted under the FPPA.

#### **4.6. Socioeconomics and Environmental Justice**

According to EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, each Federal agency must conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, national origin, or income level. Agencies must ensure that disproportionately adverse effects are not being imposed on minority or low-income areas by Federal actions.

##### *No Action Alternative*

The No Action Alternative would generally not contribute to any change in conditions of this resource. However, this alternative would limit the potable water resources to the region temporarily or semi-permanently without Federal assistance. This could result in continued hardship on minority populations, low-income populations and similar groups which occupy the region.



#### *Proposed Action Alternative*

The Proposed Action Alternative would provide a region-wide benefit and is impartial to socioeconomic status. There are no indications that the proposed water supply project would be contrary to the goals of EO 12898 or would create disproportionate adverse human health or environmental impacts on minority or low-income populations of the surrounding communities. This project would provide safe drinking water to all residents on an equal basis and would reduce future dependence on groundwater. Implementation of the Proposed Action Alternative would not result in adverse human health or environmental impacts to any residents located in Calhoun County or surrounding counties, regardless of race, national origin, or level of income of residents.

#### **4.7. Terrestrial Resources and Wildlife**

##### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

##### *Proposed Action Alternative*

The Proposed Action Alternative would have small but insignificant impacts on some terrestrial biological communities due to clearing of vegetation and disturbance to soils for construction and maintenance of the transmission mains and associated substations. BMPs would be implemented to ensure the clearing process would have no impact outside the construction easement. Birds, reptiles, amphibians, small mammals, and some invertebrates may be displaced to outlying areas during construction activities due to disturbance; however, most of the construction is adjacent to the highway or otherwise regularly disturbed areas. These animals are accustomed to the highway traffic noise and other unnatural noises and should return after the construction activities are complete.

Impacts of tree removal may occur to species which utilize vegetation for refuge, nesting, hibernating, roosting, etc., however, these impacts will be ameliorated through the implementation of avoidance and minimization measures. Potential winter and migratory stopover habitat occur in wetlands and forests within the action area for some migratory bird species, specifically prothonotary warbler, red-headed woodpecker, Kentucky warbler and bald eagle among others. Foliage, cavities, shedding bark, epiphytes (e.g., Spanish moss) and other features common to trees, particularly in forested wetlands, are also used by bat species such as tricolored bat. Clearing of vegetation and construction-related activities could adversely affect migratory birds indirectly through disturbance and removal of habitat or directly through incidental take during removal. However, these impacts would be limited to small linear tracts of trees removed along roadsides and would involve less than an acre of trees in marginal habitat. In order to avoid and minimize these potential effects, tree clearing will be restricted from December 15<sup>th</sup> to February 15<sup>th</sup> and May 1<sup>st</sup> to July 15<sup>th</sup>.

#### **4.8. Threatened and Endangered Species**

##### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

### *Proposed Action Alternative*

Some tree removal is anticipated in areas where the alignment parallels outside of existing ROW, which may include suitable habitat for the tricolored bat and red-cockaded woodpecker. Most or all work that will occur in a ROW where vehicular traffic and routine maintenance of existing infrastructure already occurs. Additional clearing of approximately 0.45 acres and 0.21 acres of trees on the Cameron Reach and St. Matthews Reach, respectively, is necessary in some segments along this ROW, and these areas would be largely of marginal habitat for the tricolored bat and red-cockaded woodpecker. USACE has made a *may affect, not likely to adversely affect* (MANLAA) determination for project impacts to the red-cockaded woodpecker and tricolored bat. No suitable habitat for any other listed species listed has been identified in the action area, and thus a *no effect* determination has been made for West Indian manatee.

In an email dated June 6, 2024, USACE initiated informal consultation with USFWS seeking written concurrence on USACE determinations. USFWS concurred with USACE's MANLAA determination for the red-cockaded woodpecker on June 24, 2024. Based on additional conferencing with USFWS via email dated October 29, 2024, and the use of seasonal tree clearing restrictions of December 15 - February 15 (winter torpor) and May 1 - July 15 (pupping season), USFWS concurred with a MANLAA determination with respect to potential impacts to tricolored bat. If a final rule is published to list the tricolored bat, USACE will reinstate consultation with USFWS, as appropriate. A record of informal consultation with USFWS is included in Appendix B.

## **4.9. Water Resources and Aquatic Habitat**

### *No Action Alternative*

The No Action Alternative would not contribute to any change in conditions of this resource.

### *Proposed Action Alternative*

Temporary changes to water quality and surface waters related to turbidity and sedimentation are anticipated during construction. These impacts would be localized, and proper erosion control and filtration control measures would be implemented during construction activities. Remediation procedures would prevent any potential long-term impacts and degradation of water quality and aquatic habitats resulting from the proposed work. The installation and use of the water transmission mains would not affect water quality, water temperature, or other parameters during the installation phase or while in use. The additional water that would be taken from Lake Marion as a result of this project is not expected to significantly impact the lake.

The project is consistent with applicable South Carolina water quality regulations and would not impair any such standard or fail to meet anti-degradation requirements for point or non-point sources. The project would not create any shortages for or otherwise adversely affect the withdrawal capabilities of current users of the raw water supply.

### *Wetlands and Streams*

Phase I construction of the waterline would involve clearing and trenching (open-cut method) that would result in temporary impacts to one freshwater wetland totaling 0.0027 acres and temporary impacts to four freshwater streams totaling 16 linear feet (Table 7, Figure 5). Nine additional streams and five additional wetlands will be avoided in Phase I by utilizing horizontal directional drilling (HDD) or jack-and-bore

methods. Phase II construction of the line would involve clearing and trenching that would result in temporary impacts to one freshwater stream totaling 4 linear feet. Five additional stream crossings and two additional wetlands will be avoided in Phase II using HDD or jack-and-bore methods.

In total, the estimated impacts to five freshwater streams and one freshwater wetland comprise 0.0027 acres and 20 linear feet, respectively. Fourteen additional streams and seven wetlands will be avoided using HDD and jack-and-bore methods. All construction areas would be returned to grade once work is completed, and the areas would be maintained with herbaceous vegetation. All staging areas would be located in uplands.

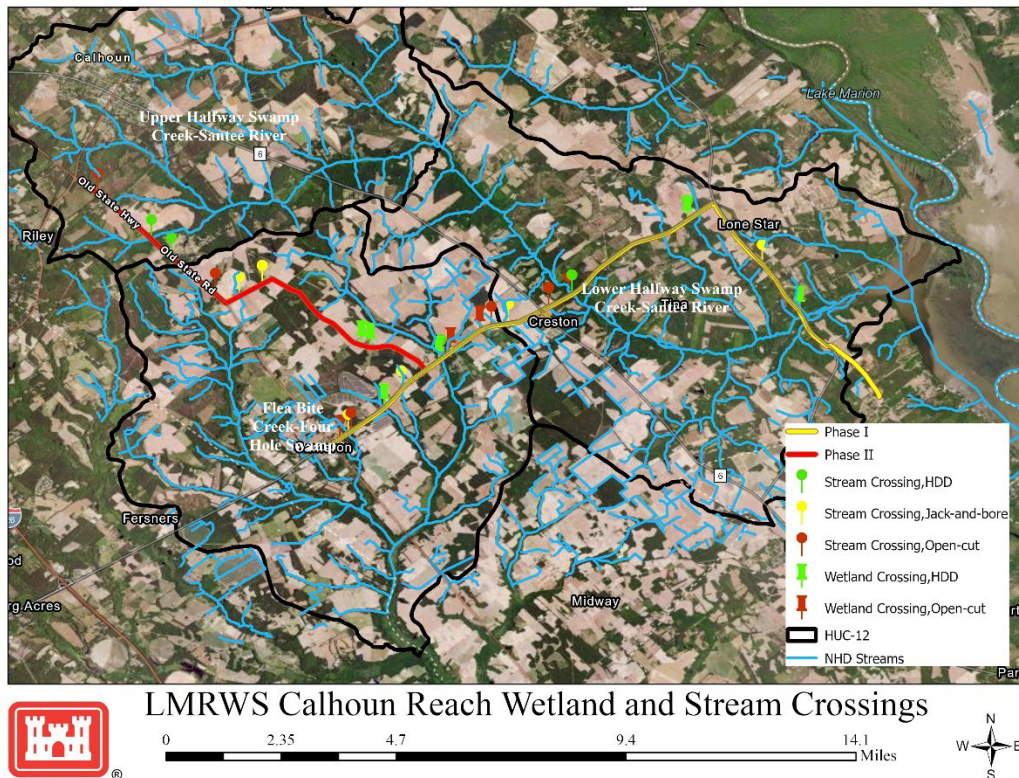
As mentioned above, BMPs outlined in the SCDES (previously SCDHEC) Stormwater Management BMP Handbook (SCDHEC 2005) will be applied to avoid and minimize potential impacts. All construction areas would be returned to grade once work is completed, and the areas would be maintained with herbaceous vegetation. All staging areas would be located in uplands. All construction activities would follow the guidelines in U.S. Army Corps of Engineers Nationwide Permit Number (NWP) 58.

In order to comply with CWA Section 401, USACE submitted a pre-application meeting request to SCDES Bureau of Water (BOW) on June 13, 2024. In an email reply, the BOW determined a pre-application meeting was not required. In recognition of applicability to general certification under NWP 58, BOW issued a project-specific 401 certification for the proposed project on June 27, 2024. All correspondence between USACE and the BOW is included in Appendix C.

Species of plant, fish, crustacean and mollusks may be impacted during use of open-cut methodology through wetlands and streams. This may include species under SCDNR's 2015 SWAP. Motile species such as fish and crustaceans will likely not be impacted, however plants and mollusks may be inadvertently displaced or taken incidentally. However, given the small scale of affected area (<0.001 acres of wetland and 28 linear feet of stream, and the temporary nature of this disturbance, impacts to any of these species is expected to be minor.

*Table 7. Aquatic Resources within the Calhoun Reach project area*

Phase	HUC-12	Waterbody Name	Field ID	Coordinates (WGS 1984)		Drill Method	Duration	Area Impacted (Acres)	Area Impacted (ft <sup>2</sup> )	Width Impacted (ft)	Linear ft. Impacted
				X	Y						
I	030502050102	Unnamed Stream	Stream 8	-80.71031	33.56285	Open-cut	Temporary	N/A	52	13	4
I	030502050102	Unnamed Stream	Stream 9	-80.70780	33.56453	Jack-and-bore	N/A	N/A	0	0	0
I	030502050102	Unnamed Stream	Stream 10	-80.70701	33.56501	Open-cut	Temporary	N/A	40	10	4
I	030502050102	Unnamed Stream	Stream 11	-80.69212	33.57739	Jack-and-bore	N/A	N/A	0	0	0
I	030502050102	Flea Bite Creek	Stream 12	-80.68037	33.58655	HDD	N/A	N/A	0	0	0
I	030502050102	Unnamed Stream	Stream 13	-80.68031	33.58657	HDD	N/A	N/A	0	0	0
I	030502050102	Unnamed Stream	Stream 14	-80.66552	33.59634	Open-cut	Temporary	N/A	32	8	4
I	030501110104	Unnamed Stream	Stream 15	-80.66050	33.59701	Jack-and-bore	N/A	N/A	0	0	0
I	030501110104	Unnamed Stream	Stream 16	-80.64860	33.60195	Open-cut	Temporary	N/A	56	14	4
I	030501110104	Unnamed Stream	Stream 17	-80.64271	33.60507	HDD	N/A	N/A	0	0	0
I	030501110104	Halfway Swamp Creek	Stream 18	-80.64170	33.60566	HDD	N/A	N/A	0	0	0
I	030501110104	Unnamed Stream	Stream 19	-80.60757	33.62746	HDD	N/A	N/A	0	0	0
I	030501110104	Unnamed Stream	Stream 21	-80.58550	33.61456	Jack-and-bore	N/A	N/A	0	0	0
I	030502050102	Cook Branch	Wetland 5	-80.69718	33.57196	HDD	N/A	0	N/A	N/A	N/A
I	030502050102	Unnamed Wetland	Wetland 6	-80.68104	33.58604	HDD	N/A	0	N/A	N/A	N/A
I	030502050102	Unnamed Wetland	Wetland 7	-80.67751	33.58854	HDD	N/A	0	N/A	N/A	N/A
I	030502050102	Unnamed Wetland	Wetland 8	-80.66891	33.59491	Open-cut	Temporary	0.0027	N/A	N/A	N/A
I	030501110104	Unnamed Wetland	Wetland 11	-80.60757	33.62746	HDD	N/A	0	N/A	N/A	N/A
I	030501110104	Unnamed Wetland	Wetland 12	-80.57441	33.60063	HDD	N/A	0	N/A	N/A	N/A
II	030501110103	Unnamed Stream	Stream 1	-80.78173	33.63558	Open-cut	Temporary	N/A	64	16	4
II	030501110103	Unnamed Stream	Stream 2	-80.76003	33.61661	HDD	N/A	N/A	0	0	0
II	030502050102	Unnamed Stream	Stream 3	-80.74704	33.60617	HDD	N/A	N/A	0	0	0
II	030502050102	Unnamed Wetland	W-D	-80.70110	33.58982	HDD	N/A	0	N/A	N/A	N/A
II	030502050102	Unnamed Wetland	W-E	-80.70383	33.59053	HDD	N/A	0	N/A	N/A	N/A
II	030502050102	Unnamed Stream	S-C	-80.73321	33.60845	Jack-and-bore	N/A	N/A	0	0	0
II	030502050102	Unnamed Stream	S-D	-80.74003	33.60516	Jack-and-bore	N/A	N/A	0	0	0
II	030501110103	Lyons Creek	Lyons Creek	-80.76596	33.62196	HDD	N/A	N/A	0	0	0
<b>Total Impacts Estimate</b>								<b>0.0027</b>	<b>244</b>	<b>-</b>	<b>20</b>



*Figure 5. Streams and wetland intersecting the project area*

### *Floodplains*

The placement of the proposed waterline would not adversely affect the floodplains or topography. EO 11988 deters development in the 100-year floodplain for federally funded projects unless no other practicable alternative is available. The project will cross the floodplain in four different locations, however, there is no practicable alternative location to avoid the floodplain in its entirety given the linear nature of the proposed transmission line. The crossings will be restored to grade and revegetated after construction; therefore, no permanent impacts are anticipated. In addition, the project conforms to all state and local floodplain protection standards.

## **5. CUMULATIVE IMPACTS**

Cumulative effects are defined in the regulations implementing NEPA (40 C.F.R. § 1508.1(g)(3)) as follows:

*“Cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.”*

The following paragraphs summarize the cumulative impacts expected from implementation of the Proposed Alternative Action. No cumulative impacts are expected from implementation of the No Action Alternative.

### **5.1. Past, Present, and Reasonably Foreseeable Future Actions**

A review of publicly available information, and coordination with Calhoun County and Santee Cooper, were performed to identify relevant past, present, and potential future actions in the Calhoun County area. No past actions were identified in the area. SCDOT lists only one pavement improvement program projects located along the proposed project route. Specifically, the project includes the installation of mid-road rumble strips along McCords Ferry Rd near Lone Star, SC. This project action will have no cumulative impact to the environment in the project area. No other known SCDOT projects are projected for the project area.

### **5.2. Resource Areas Evaluated for Cumulative Effects**

Implementation of the preferred alternative would have either no effects, negligible effects, or minor effects on climate, cultural resources, land use, air quality and noise, HTRW, socioeconomics and environmental justice, threatened and endangered species, and water resources and aquatic habitat.

The additional capacity from the proposed water transmission lines will support existing and future development needs that currently includes communities located in Calhoun County. With additional water supply from the LMRWS, the need to flush the Lake Marion system that has been necessary to maintain water quality will be reduced and thus save water systemwide.

Present and future development in and around the project area is controlled by management measures including control of floodplain development by zoning ordinances, subdivision regulations, and building codes. Future development in the area would be in compliance with the above listed management measures, minimizing impacts to the environment. Given current growth trends, the area is expected to experience population growth and additional development.

This growth is likely to occur with or without construction of the proposed project; however, construction of the water line would create a water source for the area that is more resilient to climate change. The LMRWS, which the proposed project would be a part of, has the capacity to meet the current and anticipated future water supply needs of the area. The cumulative impacts of the total LMRWS (i.e. Phase I, Phase II and Phase III) are considered to be small because the system is designed to mostly replace existing water supply systems and provide water for the expected population growth in the service area.

## **6. PUBLIC INVOLVEMENT AND COORDINATION**

Copies of the draft EA and draft Finding of No Significant Impacts (FONSI) were distributed to the following Tribes and Federal and state agencies and made available to the public for a 30-day review and comment period:

### **Tribes**

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Absentee-Shawnee Tribe of Indians of Oklahoma

Alabama-Quassarte Tribal Town

Catawba Indian Nation

Cherokee Nation

The Chickasaw Nation

Eastern Band of the Cherokee Indians

Eastern Shawnee Tribe of Oklahoma

Kialegee Tribal Town

Poarch Band of Creek Indians

Shawnee Tribe

Thlopthlocco Tribal Town

United Keetoowah Band of Cherokee Indians in Oklahoma

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**Federal Agencies**

Environmental Protection Agency

National Marine Fisheries Services

USDA Natural Resources Conservation Service

U.S. Fish and Wildlife Service

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**State Agencies**

South Carolina Department of Archives and History

South Carolina Department of Environmental Services

South Carolina Department of Natural Resources

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Public comment letters received regarding the draft EA and FONSI will be included in Appendix D of the final EA.

## **7. COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS**

### **7.1. Clean Air Act of 1972**

The CAA sets goals and standards for the quality and purity of air. It requires the EPA to set NAAQS for pollutants considered harmful to public health and the environment. Calhoun County is designated as in attainment for all principal pollutants. The short-term effects from construction equipment associated with the project would not result in permanent adverse effects to air quality in the study area. Air quality permits would not be required for this project.



## **7.2. Clean Water Act of 1972 – Section 401 and Section 404**

The proposed project would result in temporary impacts to <0.01 acre of freshwater wetlands and 28 linear feet of streams during project construction, which USACE has determined is eligible for authorization under the terms and conditions of NWP 58. NWP 58 authorizes work in waters of the US required for the construction, maintenance, repair and removal of utility lines and associated facilities. The work to be conducted as part of the proposed project is consistent with the types of activities authorized by NWP 58.

USACE initiated coordination with SCDES BOW in submitting a pre-filing meeting request via letter dated June 13, 2024. The BOW replied via email dated June 14, 2024, concluding no meeting was required. In recognition of applicability to general certification under NWP 58, BOW issued a project-specific 401 certification for the proposed project on June 27, 2024. Correspondence with BOW is included in Appendix C.

## **7.3. Coastal Zone Management Act of 1972**

The Coastal Zone Management Act (CZMA) requires that “*each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.*” Calhoun County is an inland county in South Carolina and the Proposed Action Alternative would have no direct impacts to the coastal zone. Therefore, USACE has no further responsibilities under the CZMA.

## **7.4. Endangered Species Act of 1973**

The ESA is designed to protect and recover threatened and endangered species of fish, wildlife, and plants. In a letter dated June 6, 2024, USACE initiated informal consultation with USFWS regarding a determination of *may affect, likely to adversely affect* (MANLAA) made for red-cockaded woodpecker and tricolored bat. In an email dated June 24, 2024, USFWS provided concurrence with the determination made for red-cockaded woodpecker. Following additional conferencing on October 19, 2024, USFWS provided concurrence that the project determination of MANLAA for the tricolored bat is appropriate with implementation of tree clearing restrictions during the species winter torpor and pupping season. A record of informal consultation is included in Appendix B.

## **7.5. Environmental Justice (EO 12898)**

According to EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, each Federal agency must conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, national origin, or income level. Total minority populations (i.e., all non-white and Hispanic or Latino racial groups) combined comprise approximately 45% of the population in Calhoun County. The project would have a positive impact on minority populations by providing more accessible potable water.

## **7.6. Farmland Protection Policy Act**

The Farmland Protection Policy Act (FPPA) minimizes the unnecessary and irreversible conversion of farmland to nonagricultural uses. The proposed pipeline reaches would follow existing power line and highway ROW, where possible, to avoid impacts on any prime farmland in accordance with the FPPA.



Approximately 6.1 acres of prime farmland occur within the proposed project area. Coordination of the proposed project with the USDA NRCS was initiated on June 10, 2024 with information provided in an email. In a response letter dated June 12, 2024 (Appendix D), NRCS has concluded that impacts to farmland from construction of the utility line did not constitute permanent conversion of farmland and that 0.3 acres of farmland affected by construction of the booster pump station and master meter station would be exempt from the act.

#### **7.7. Fish and Wildlife Coordination Act of 1934**

The Fish and Wildlife Coordination Act (FWCA) provides authority for the Services (USFWS and NMFS) involvement in evaluating impacts to fish and wildlife from proposed water resource development projects. It requires that fish and wildlife resources receive equal consideration to other project features and requires that Federal agencies consult with USFWS, NMFS and state resource agencies on the proposed project. The appropriate level of coordination under FWCA occurred concurrent with the release of the draft EA and FONSI and all applicable comments received are included in Appendix D.

#### **7.8. Floodplain Management (EO 11988)**

EO 11988 deters development in the 100-year floodplain for federally funded projects unless no other practicable alternative is available. If development is planned within the 100-year floodplain and it is federally funded, there is an eight-step process that must be completed prior to release of funds. The objectives of EO 11988 have been considered in the formulation of plans for this project. The following determinations have been made in response to requirements of EO 11988, which pertains to floodplain management.

No practicable non-floodplain alternative exists. The considered actions do not conflict with applicable state and local standards concerning floodplain protection. The considered action would not affect the natural and beneficial values of the floodplain.

#### **7.9. Migratory Bird Treaty Act and EO 13186**

The Migratory Bird Treaty Act (MBTA) of 1918 is the domestic law that affirms, or implements, the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possessing, transporting, and importing of migratory birds, their eggs, parts, and nests. EO 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) directs Federal agencies to take certain actions to further implement the MBTA, including evaluating the effects of actions on migratory birds.

The nationwide standard conservation measures published by USFWS (2015) will be applied where appropriate during project construction, thereby avoiding and minimizing any potential impacts to migratory birds.

#### **7.10. National Wild and Scenic Rivers**

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. A review of the Wild and Scenic River inventory list reveals that the proposed project would not affect a stream or portion of a stream that is included in the National Wild and Scenic Rivers system.

### **7.11. National Historic Preservation Act of 1966**

Section 106 of the NHPA requires Federal agencies to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. A cursory review of the APE in the South Carolina ArchSite database maintained by SCIAA and the SCDAAH resulted in identification of no historic resources eligible for listing under Section 106 of the NHPA. Cultural resource and archaeological surveys were also performed and USCACE determined that the project would not impact any properties listed or eligible for listing in the NRHP. These findings were transmitted to SHPO and Tribes listed in Chapter 6. In a letter dated November 13, 2024, SHPO stated that based on the description of the undertaking's APE and the identification of historic properties in the APE, their office concurred with the assessment that no properties listed in or eligible for listing in the NRHP will be affected by this project. In letters dated July 30, 2024, copies of the archeological survey reports were also distributed to Tribal Nations (see Section 6 for a full list). Responses were received from several Tribes and no concerns with respect to cultural resources were identified. All correspondence and record of consultation are included in Appendix A.

### **7.12. Protection of Wetlands (EO 11990)**

EO 11990 deters development in wetlands for federally funded projects unless no other practical alternative is available. The objectives of EO 11990 have been considered in the formulation of plans for this project. The following determinations have been made in response to requirements of EO 11990 which pertains to wetland management.

No practical non-wetland alternative exists. The considered actions do not conflict with applicable state and local standards concerning wetland protection and permitting and the proposed project has been determined by USACE to be consistent with the terms and conditions of NWP 58. The proposed project would not involve the permanent loss of wetlands and where possible, wetland areas would be allowed to return to a natural state after installation of the water transmission main. The proposed project would avoid and minimize wetland impacts where possible.

## **8. ENVIRONMENTAL COMMITMENTS**

USACE will utilize the following environmental commitments and BMPs to reduce and/or eliminate the potential for adverse environmental effects during implementation of the project:

- Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (i.e. silt fences or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
- Upon completion, all disturbed areas will be reconstructed to their original contours with the excavated material and permanently stabilized with vegetative cover and/or riprap, as appropriate. Plantings should consist of appropriate native species.
- Spoil material from trench excavation should be placed on the side of the trench to be reused as back fill with the A-horizon placed back in its original position. Excess spoil material must be removed to an approved upland disposal site.
- Stream banks at crossings should be restored by planting woody vegetation. Maintenance of this right-of-way through and adjacent to streams should be conducted with mowing rather than with chemicals to reduce the potential for contamination and negative impacts on aquatic resources. If

chemicals are used, a 50-foot buffer on either side of the stream crossing should be established where no herbicide treatments would be allowed.

- Right-of-ways through and adjacent to forested wetlands should be maintained in low growing, native vegetation. Maintenance of this right-of-way should be conducted via hand clearing rather than with chemicals to reduce the potential for contamination and negative impacts on aquatic resources. If chemicals are used, a 50-foot buffer on either side of the wetland crossing should be established where no herbicide treatments would be allowed.
- To protect nearby aquatic resources and water quality from inadvertent releases during HDD, preventative measures outlined in a Horizontal Directional Drilling Contingency and Inadvertent Release Plan will be implemented.
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
- The contractor shall check weather forecast and confirm no precipitation for a minimum of three days prior to or after wetland crossings.
- Tree clearing will be restricted from December 15<sup>th</sup> to February 15<sup>th</sup> and May 1<sup>st</sup> to July 15<sup>th</sup>.
- All sites listed, or eligible for listing, under the NRHP for purposes of NHPA Section 106 compliance will be avoided by all construction and construction-related activities, including parking, equipment storage and staging. Site boundaries will be marked on plans and fenced off with temporary construction fencing during construction work to ensure the associated earthwork is not damaged.
- If human remains or intact archaeological features or deposits are uncovered, work in the vicinity of the discovery will stop immediately, and all reasonable measures to avoid or minimize harm to the finds will be taken. The contractor will ensure that archaeological discoveries are secured in place, that access to the sensitive area is restricted, and that all reasonable measures are taken to avoid further disturbance of the discoveries. The contractor will provide immediate notice of such discoveries to USACE. The contractor shall contact the South Carolina State Historic Preservation Office (SHPO) and USACE within 24 hours of the discovery.
- Upon discovery of any HTRW, associated contaminated soils associated will be properly managed per SCDES guidance.

## 9. LIST OF PREPARERS

Principal Author	Niko Brown	Biologist	US Army Corps of Engineers, Charleston District	Planning and Environmental Branch
Reviewer/Editor	Antoni Paris	Archeologist	US Army Corps of Engineers, Charleston District	Regulatory Division

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**Calhoun Reach Transmission Mains  
Calhoun County, South Carolina**

**Environmental Assessment: Appendix A  
NHPA Section 106 Compliance Record**

Prepared by:

United States Army Corps of Engineers

Charleston District



November 2024



**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

W. Eric Emerson, PhD  
Director, South Carolina Department of Archives and History  
8301 Parklane Road  
Columbia, SC 29223

Dear Dr. Emerson:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

USACE, in collaboration with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, proposes extending a potable water transmission main near Elloree, SC. The project will be constructed in two phases as detailed below. This project is authorized under the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), enabling USACE to assist with water and wastewater infrastructure projects.

Phase I of construction would begin with the installation of about 13.5 miles of a 12"-diameter potable water transmission main at the water tank serving northeastern Elloree, SC, where Old River Road forks with Tee Vee Road. This reach is referred to herein as the Cameron Reach. The proposed line extends north approximately 1.4 miles along Old River Rd to where Old River Rd meets McCords Ferry Rd (SC-267). The proposed line then crosses McCords Ferry Rd and continues north 3.5 miles to Lone Star. From Lone Star, the proposed line extends west along Cameron Rd (SC-33) about 3.7 miles where the line branches in Creston and continues south for about 0.2 miles on Old Number Six Hwy (SC-6) to the Calhoun Co EMS station. The proposed line continues west about 1.8 miles on Cameron Rd before splitting perpendicular to the proposed location of a booster station near Nates Store Rd. The proposed line then continues west about 2.9 more miles on Cameron Rd. crossing Old State Rd. and terminating in Cameron (see enclosed figure).

Phase II of construction, herein referred to as the St. Matthews Reach, would consist of about 7.8 miles of line and originate from a valve in the Cameron Reach line at the intersection of Cameron Rd and Mossdale Rd. The proposed line continues along Mossdale Rd north about 3.5 miles to Belleville Rd. The line would continue along Belleville Rd going west about 0.9 miles until it reaches Old State Rd (US Highway 176). The line would then follow Old State Rd north about 3.4 miles to its terminus at the location of a proposed master meter station. A booster pump station would also be constructed during Phase II construction near the Shady Grove Baptist Church Cemetery.

The project is being conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 et seq.), under the oversight of USACE. The Area of Potential Effects (APE) is defined as a 300-foot radius around the project area, considering the nature of the undertaking and existing vegetation and land use.

Terracon Consultants, Inc. (Terracon), on behalf of Hazen and Sawyer, conducted two separate Phase I Cultural Resources Surveys, one for the proposed Cameron Reach and one for the St. Matthews Reach. During the archaeological survey performed for the Cameron Reach, no sites or isolated finds were identified. The architectural survey for Cameron Reach identified 14 historic resources (SHPO Site Nos. 0070-0076 and 0078-0084) within the APE, all of which are recommended as ineligible for inclusion in the National Register of Historic Places (NRHP). Based on these findings, the report concludes that no historic properties will be affected by the proposed undertaking.

During the archaeological survey performed for the St. Matthews Reach, eight new archaeological sites (38CL117-38CL124) and five isolated finds were identified. All archaeological resources are recommended as ineligible for inclusion in the NRHP. The architectural survey for St. Matthews Reach identified three historic resources (SHPO Site Nos. 0069, 0072, and 0077), also recommended as ineligible for inclusion in the NRHP. Based on these findings, the report concludes that no historic properties will be affected by the proposed undertaking. The report of Terracon's findings, titled "Phase I Cultural Resources Survey of Approximately 8.41 Miles for the Proposed Cameron to St. Matthews Water Main Project – St. Matthews Reach, Calhoun County, South Carolina," dated July 2024, is also enclosed for your review.

Both Terracon's survey reports, titled "Phase I Cultural Resources Survey of Approximately 13.35 Miles for the Proposed Cameron to St. Matthews Water Main Project – Cameron, Calhoun County, South Carolina," and "Phase I Cultural Resources Survey of Approximately 13.35 Miles for the Proposed Cameron to St. Matthews Water Main Project – Cameron, Calhoun County, South Carolina," are enclosed for your review.

Based on these assessments and in compliance with 36 CFR 800.4(d)(1), USACE has determined that the Calhoun Reach Transmission Mains Project will have no effect on historic properties. We request your review and concurrence with this determination within 30 days of receipt of this letter.

For any questions or comments, please contact Niko Brown at [niko.r.brown@usace.army.mil](mailto:niko.r.brown@usace.army.mil) or by phone at (603) 258-8589.

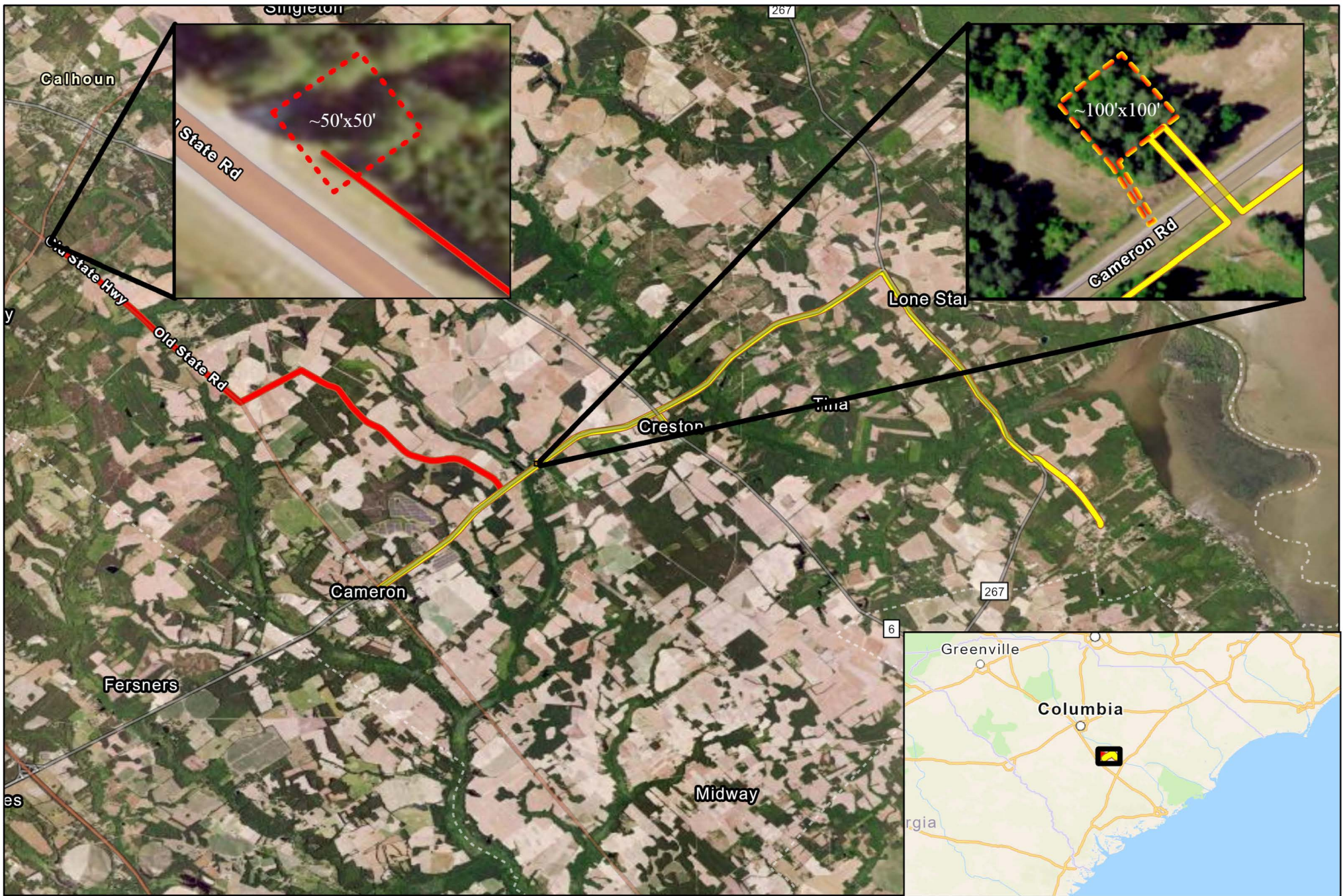
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch





Enclosures





# LMRWS Calhoun Reach Alignments and Stations



-  Booster Pump Station
-  Master Meter Station
-  Phase I
-  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Ms. Devon Frazier-Smith  
Absentee-Shawnee Tribe of Indians of Oklahoma  
Tribal Historic Preservation Officer  
2025 S. Gordon Cooper Drive  
Shawnee, OK 74801

Dear Ms. Frazier-Smith:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

USACE, in collaboration with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, proposes extending a potable water transmission main near Elloree, SC. The project will be constructed in two phases as detailed below. This project is authorized under the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), enabling USACE to assist with water and wastewater infrastructure projects.

Phase I of construction would begin with the installation of about 13.5 miles of a 12"-diameter potable water transmission main at the water tank serving northeastern Elloree, SC, where Old River Road forks with Tee Vee Road. This reach is referred to herein as the Cameron Reach. The proposed line extends north approximately 1.4 miles along Old River Rd to where Old River Rd meets McCords Ferry Rd (SC-267). The proposed line then crosses McCords Ferry Rd and continues north 3.5 miles to Lone Star. From Lone Star, the proposed line extends west along Cameron Rd (SC-33) about 3.7 miles where the line branches in Creston and continues south for about 0.2 miles on Old Number Six Hwy (SC-6) to the Calhoun Co EMS station. The proposed line continues west about 1.8 miles on Cameron Rd before splitting perpendicular to the proposed location of a booster station near Nates Store Rd. The proposed line then continues west about 2.9 more miles on Cameron Rd. crossing Old State Rd. and terminating in Cameron (see enclosed figure).

Phase II of construction, herein referred to as the St. Matthews Reach, would consist of about 7.8 miles of line and originate from a valve in the Cameron Reach line at the intersection of Cameron Rd and Mossdale Rd. The proposed line continues along Mossdale Rd north about 3.5 miles to Belleville Rd. The line would continue along Belleville Rd going west about 0.9 miles until it reaches Old State Rd (US Highway 176). The line would then follow Old State Rd north about 3.4 miles to its terminus at the location of a proposed master meter station. A booster pump station would also be constructed during Phase II construction near the Shady Grove Baptist Church Cemetery.



The project is being conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 et seq.), under the oversight of USACE. The Area of Potential Effects (APE) is defined as a 300-foot radius around the project area, considering the nature of the undertaking and existing vegetation and land use.

Terracon Consultants, Inc. (Terracon), on behalf of Hazen and Sawyer, conducted two separate Phase I Cultural Resources Surveys, one for the proposed Cameron Reach and one for the St. Matthews Reach. During the archaeological survey performed for the Cameron Reach, no sites or isolated finds were identified. The architectural survey for Cameron Reach identified 14 historic resources (SHPO Site Nos. 0070-0076 and 0078-0084) within the APE, all of which are recommended as ineligible for inclusion in the National Register of Historic Places (NRHP). Based on these findings, the report concludes that no historic properties will be affected by the proposed undertaking.

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For any questions or comments, please contact Niko Brown at [niko.r.brown@usace.army.mil](mailto:niko.r.brown@usace.army.mil) or by phone at (603) 258-8589.

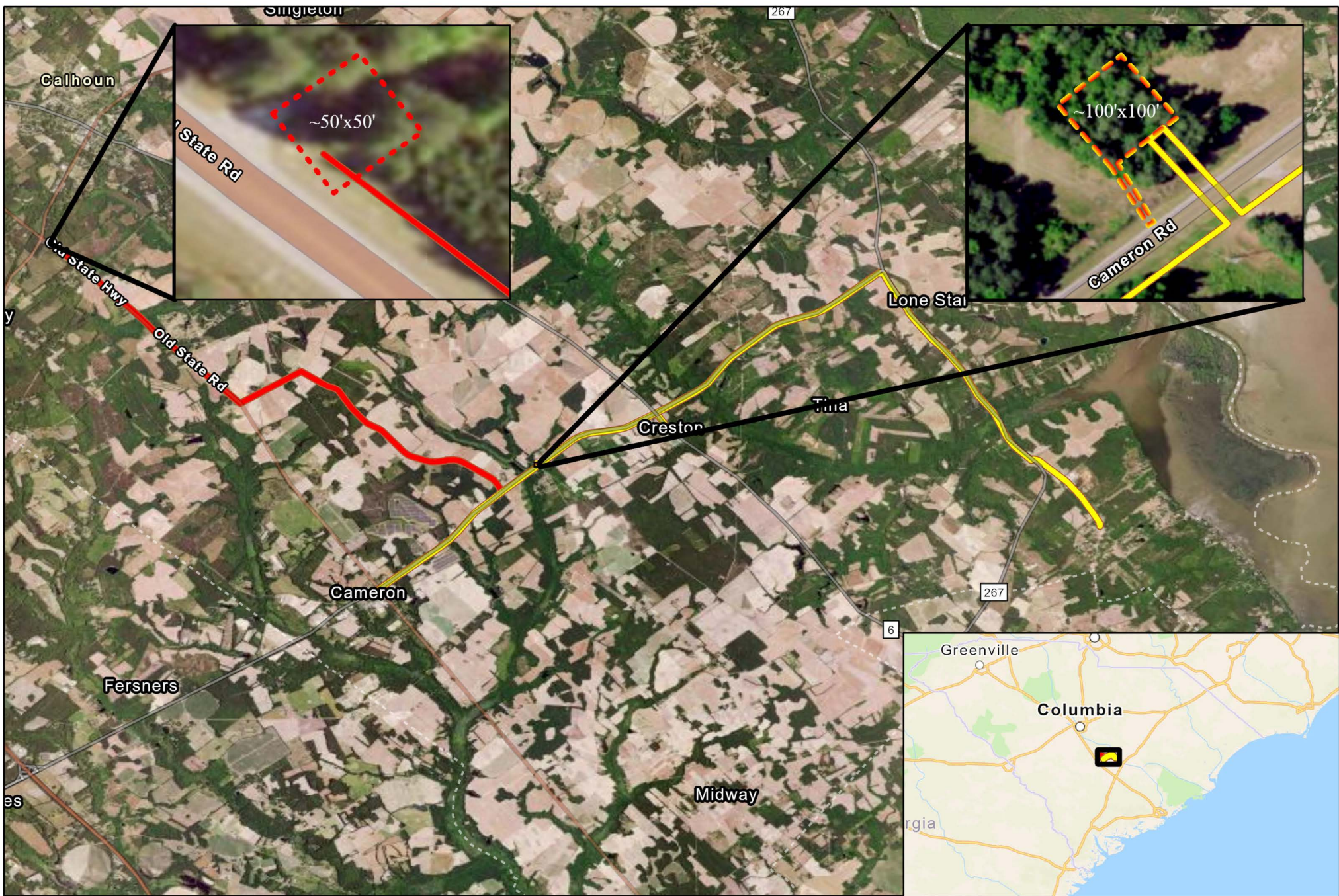
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Mr. David Frank  
Thlopthlocco Tribal Town  
Tribal Historic Preservation Officer  
PO Box 188  
Okemah, OK 74859

Dear Mr. Frank:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

USACE, in collaboration with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, proposes extending a potable water transmission main near Elloree, SC. The project will be constructed in two phases as detailed below. This project is authorized under the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), enabling USACE to assist with water and wastewater infrastructure projects.

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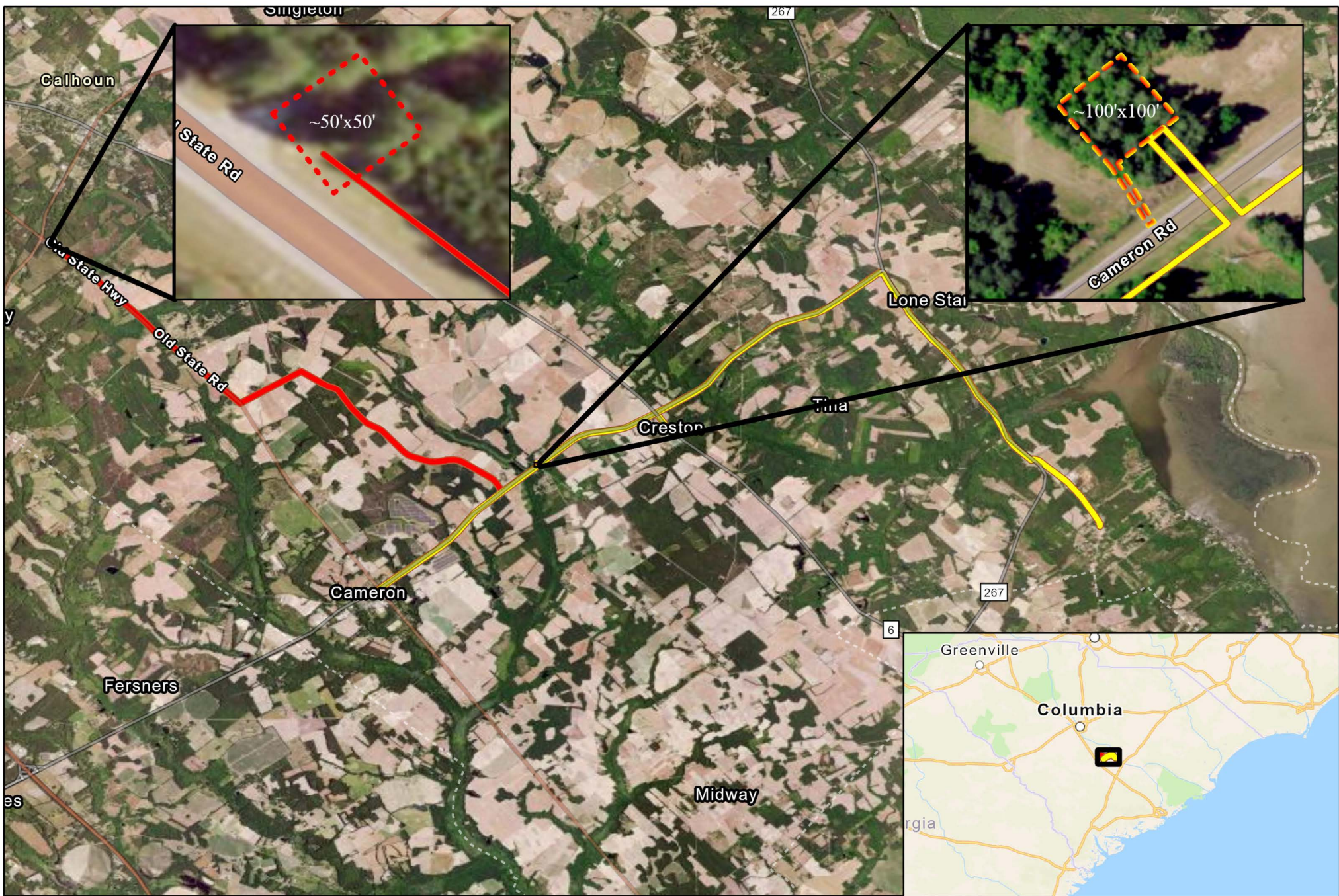
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures





# LMRWS Calhoun Reach Alignments and Stations



- Booster Pump Station
- Master Meter Station
- Phase I
- Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Mr. Larry Haikey  
Poarch Band of Creek Indians  
Tribal Historic Preservation Officer  
5811 Jack Springs Road  
Atmore, Alabama 36502

Dear Mr. Haikey:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

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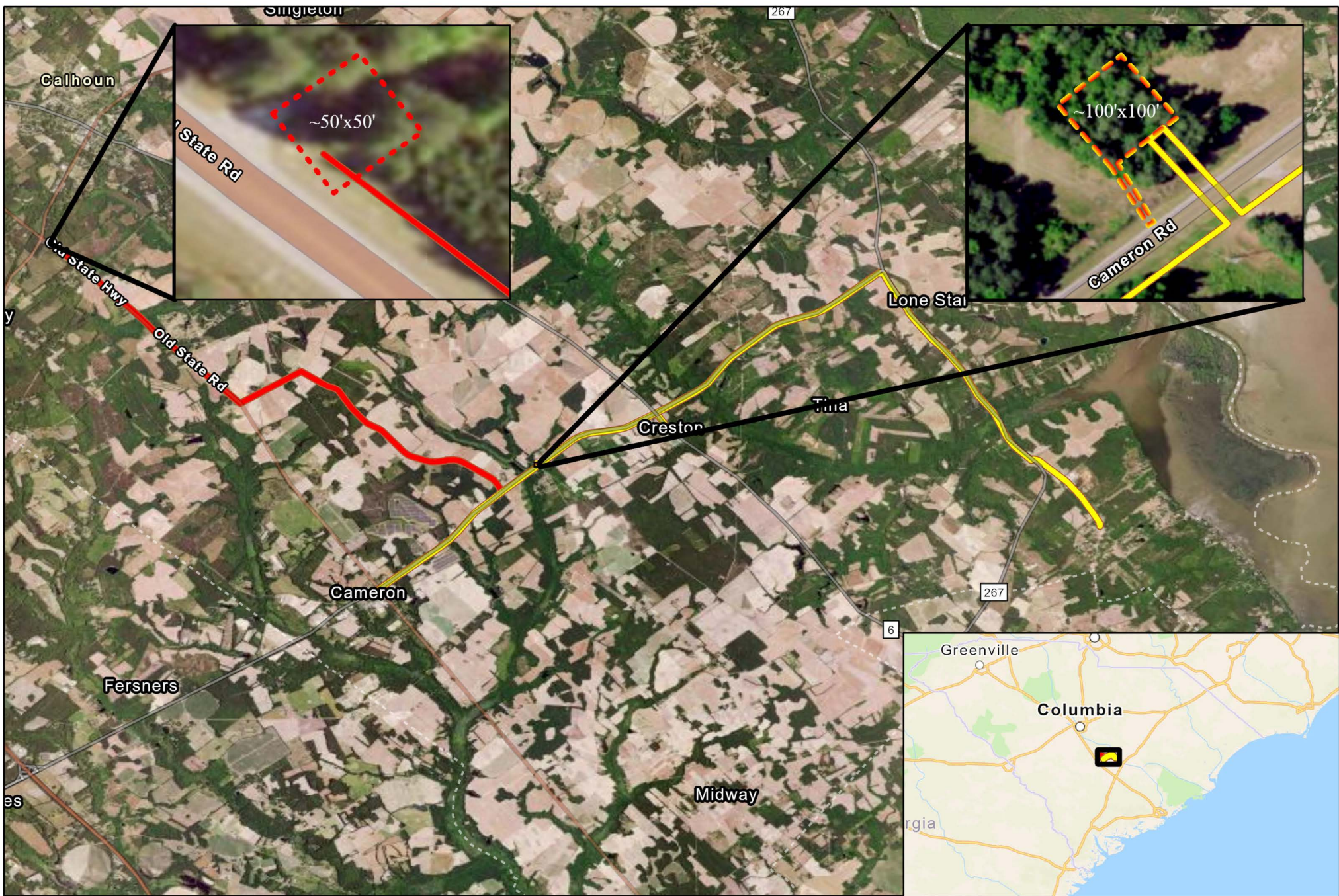
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch





Enclosures





# LMRWS Calhoun Reach Alignments and Stations



-  Booster Pump Station
-  Master Meter Station
-  Phase I
-  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Ms. Lora Nuckolls  
Eastern Shawnee Tribe of Oklahoma  
Cultural Preservation Director/Tribal Historic Preservation Officer  
70500 E 128 RD  
Wyandotte, OK 74370

Dear Ms. Nuckolls:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

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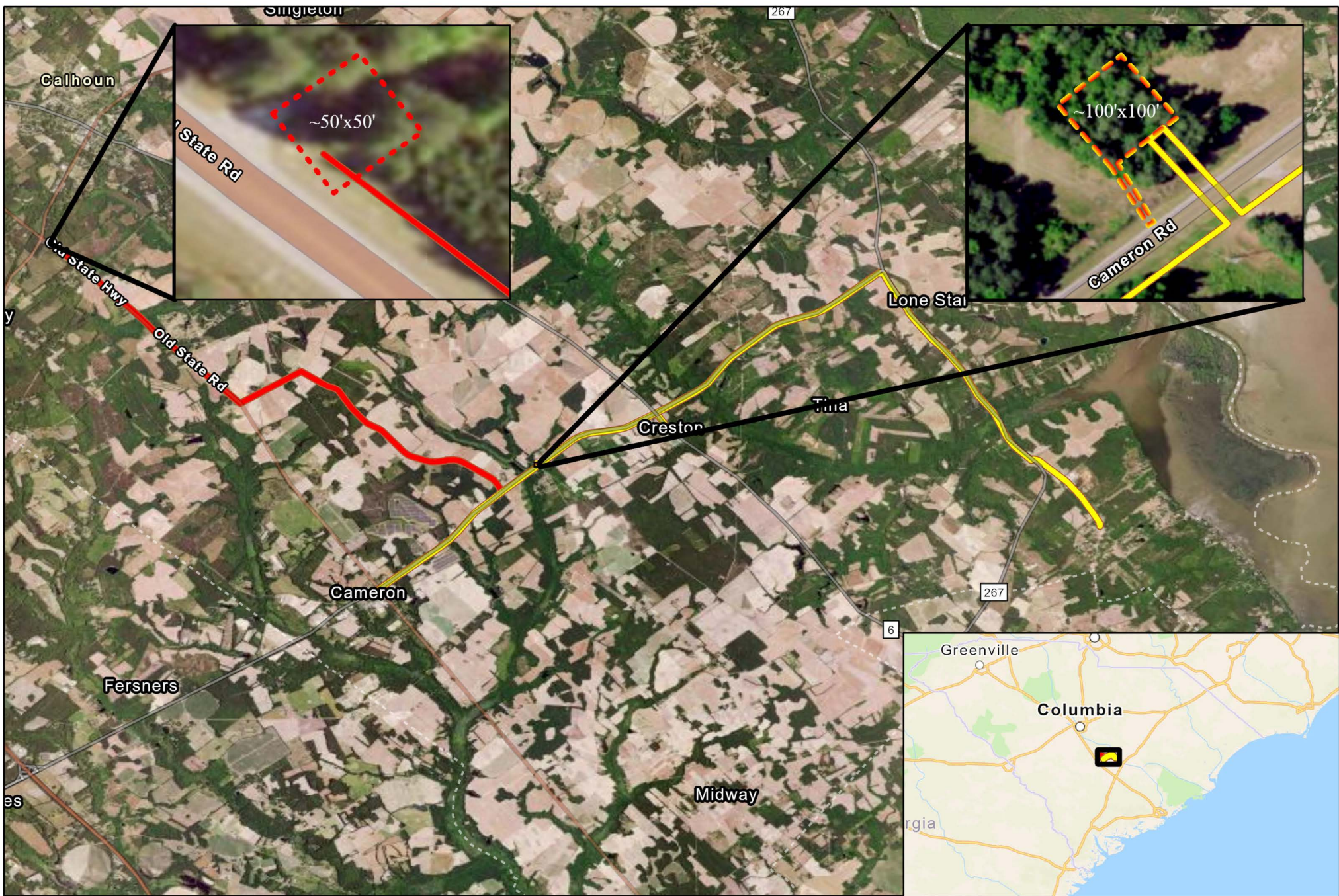
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Ms. Tonya Tipton  
Shawnee Tribe  
Tribal Historic Preservation Officer  
29 S. Highway 69A  
Miami, OK 74354

Dear Ms. Tipton:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

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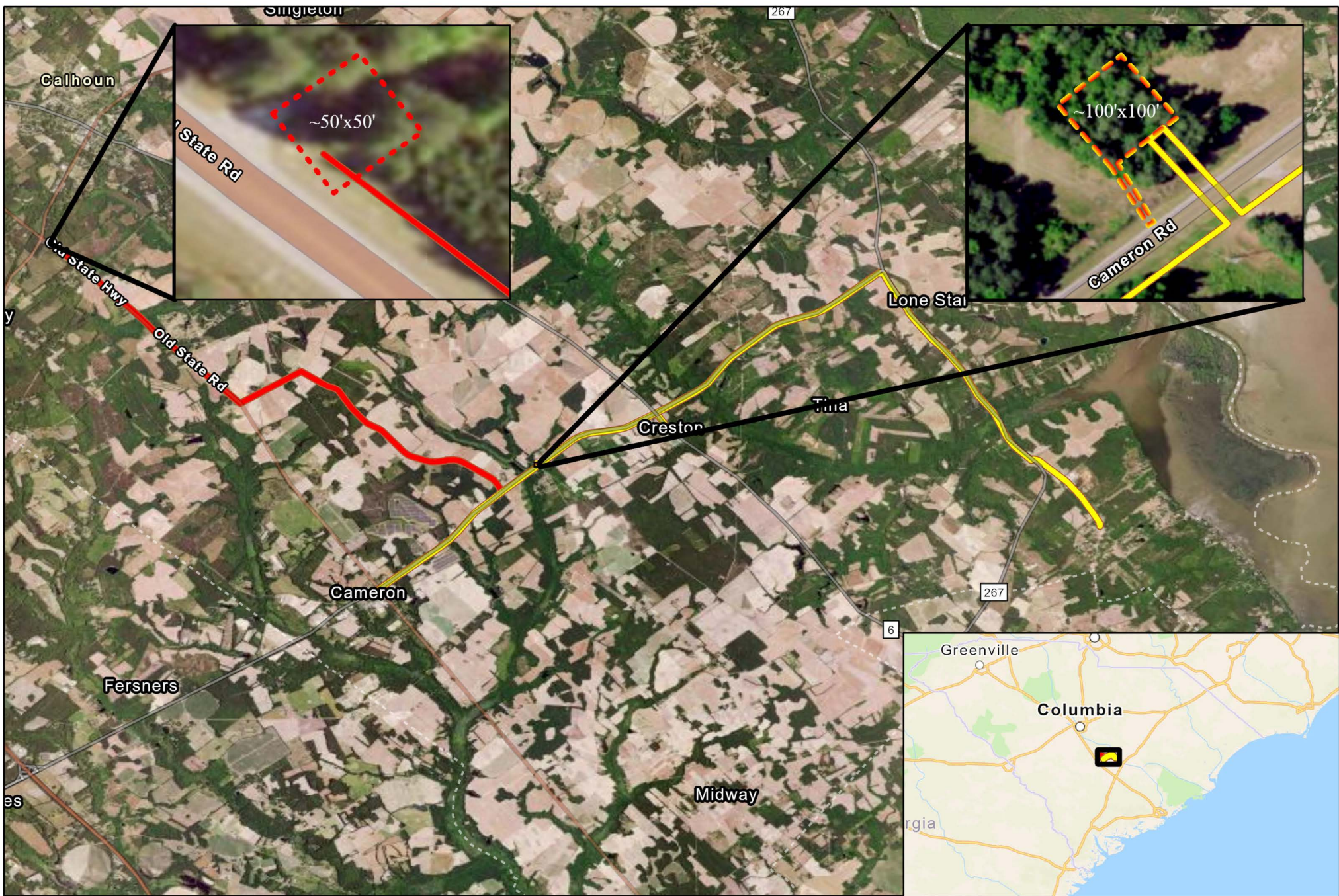
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Mr. David Cook  
Kialegee Tribal Town  
Tribal Historic Preservation Officer  
PO Box 332  
Wetumka, OK 74883

Dear Mr. Cook:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

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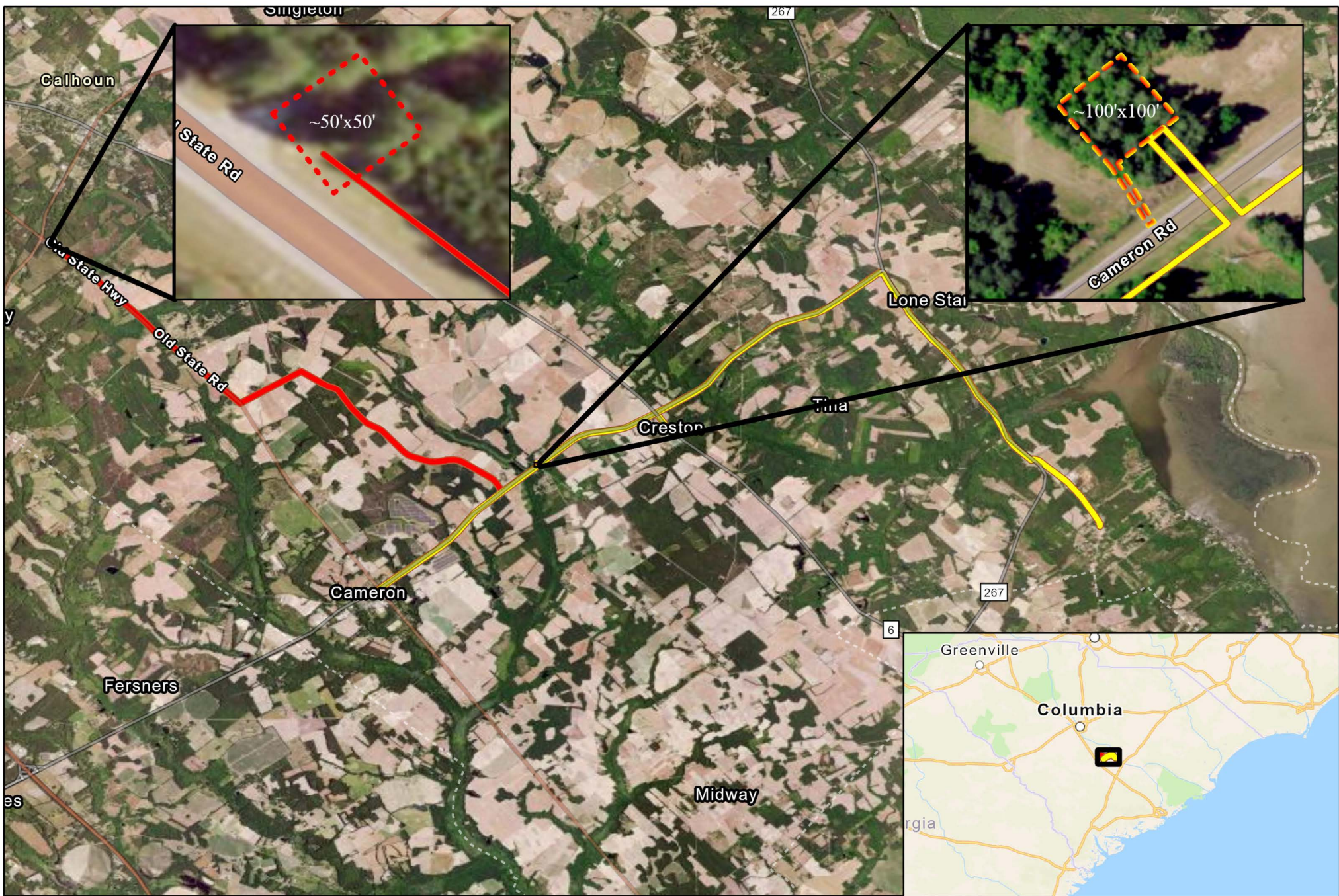
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Nancy A. Parrish  
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Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Ms. Elizabeth Toombs  
Cherokee Nation  
Tribal Historic Preservation Officer  
PO Box 948  
Tahlequah, OK 74465

Dear Ms. Toombs:

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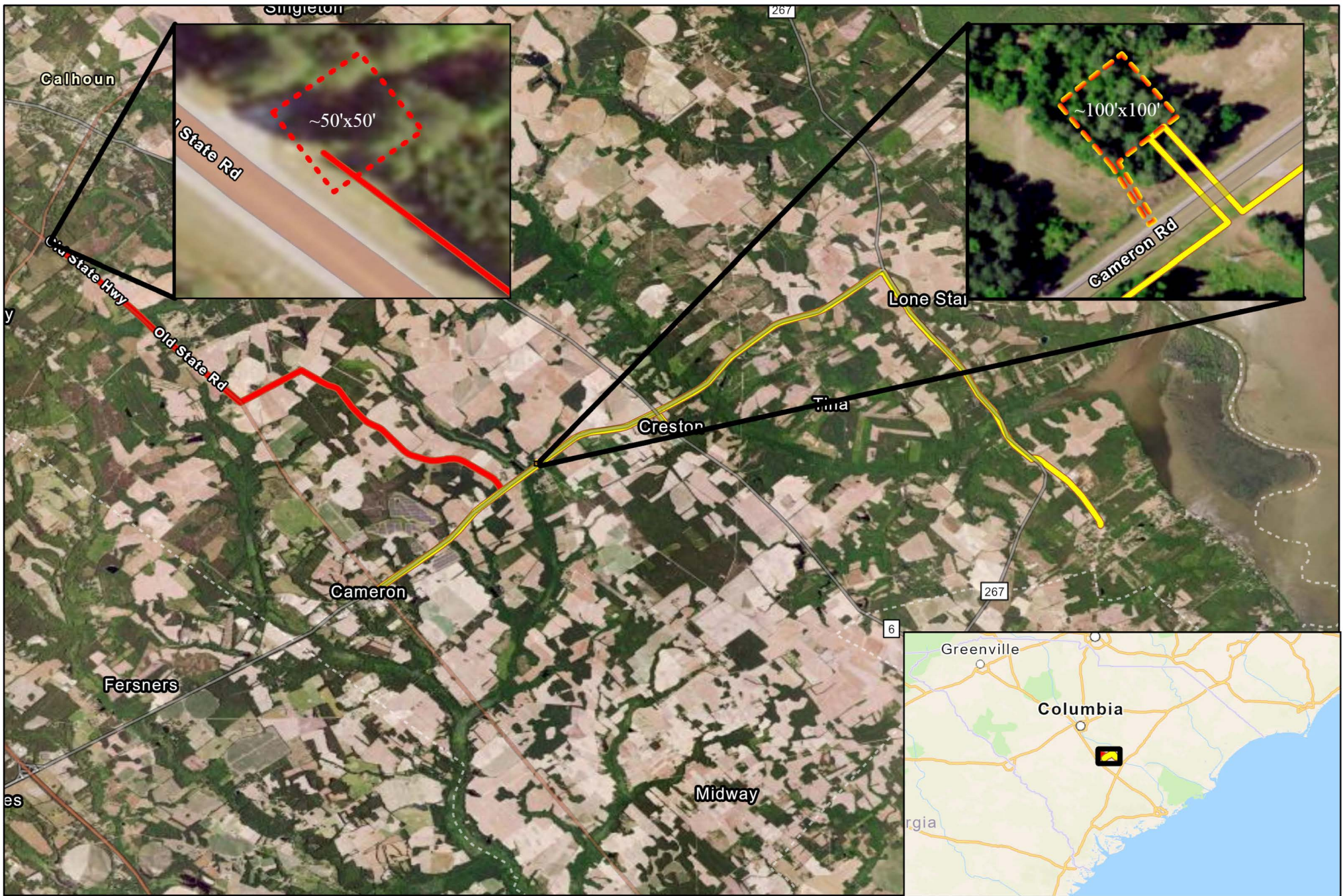
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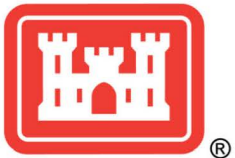
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Chief, Planning and Environmental Branch

Enclosures









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**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Mr. Russell Townsend  
Eastern Band of Cherokee Indians  
Tribal Historic Preservation Officer  
PO Box 455  
Cherokee, NC 28719

Dear Mr. Townsend:

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Both Terracon's survey reports, titled "Phase I Cultural Resources Survey of Approximately 13.35 Miles for the Proposed Cameron to St. Matthews Water Main Project – Cameron, Calhoun County, South Carolina," and "Phase I Cultural Resources Survey of Approximately 13.35 Miles for the Proposed Cameron to St. Matthews Water Main Project – Cameron, Calhoun County, South Carolina," are enclosed for your review.

Based on these assessments and in compliance with 36 CFR 800.4(d)(1), USACE has determined that the Calhoun Reach Transmission Mains Project will have no effect on historic properties. We request your review and concurrence with this determination within 30 days of receipt of this letter.

For any questions or comments, please contact Niko Brown at [niko.r.brown@usace.army.mil](mailto:niko.r.brown@usace.army.mil) or by phone at (603) 258-8589.

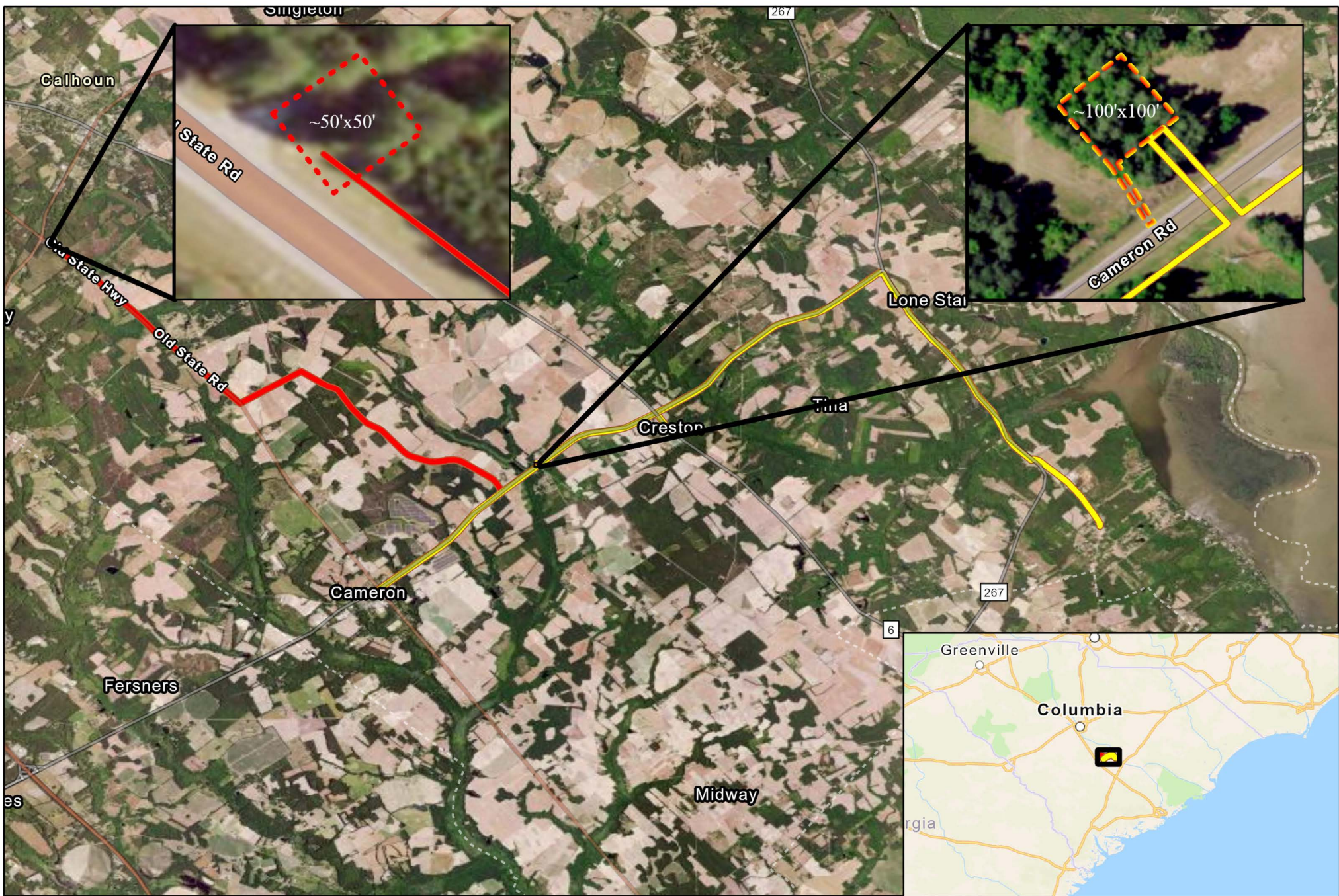
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Ms. Brina Williams  
Alabama-Quassarte Tribal Town  
Tribal Historic Preservation Officer  
PO Box 187  
Wetumka, OK 74883

Dear Ms. Williams:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

USACE, in collaboration with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, proposes extending a potable water transmission main near Elloree, SC. The project will be constructed in two phases as detailed below. This project is authorized under the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), enabling USACE to assist with water and wastewater infrastructure projects.

Phase I of construction would begin with the installation of about 13.5 miles of a 12"-diameter potable water transmission main at the water tank serving northeastern Elloree, SC, where Old River Road forks with Tee Vee Road. This reach is referred to herein as the Cameron Reach. The proposed line extends north approximately 1.4 miles along Old River Rd to where Old River Rd meets McCords Ferry Rd (SC-267). The proposed line then crosses McCords Ferry Rd and continues north 3.5 miles to Lone Star. From Lone Star, the proposed line extends west along Cameron Rd (SC-33) about 3.7 miles where the line branches in Creston and continues south for about 0.2 miles on Old Number Six Hwy (SC-6) to the Calhoun Co EMS station. The proposed line continues west about 1.8 miles on Cameron Rd before splitting perpendicular to the proposed location of a booster station near Nates Store Rd. The proposed line then continues west about 2.9 more miles on Cameron Rd. crossing Old State Rd. and terminating in Cameron (see enclosed figure).

Phase II of construction, herein referred to as the St. Matthews Reach, would consist of about 7.8 miles of line and originate from a valve in the Cameron Reach line at the intersection of Cameron Rd and Mossdale Rd. The proposed line continues along Mossdale Rd north about 3.5 miles to Belleville Rd. The line would continue along Belleville Rd going west about 0.9 miles until it reaches Old State Rd (US Highway 176). The line would then follow Old State Rd north about 3.4 miles to its terminus at the location of a proposed master meter station. A booster pump station would also be constructed during Phase II construction near the Shady Grove Baptist Church Cemetery.

The project is being conducted in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 300101 et seq.), under the oversight of USACE. The Area of Potential Effects (APE) is defined as a 300-foot radius around the project area, considering the nature of the undertaking and existing vegetation and land use.

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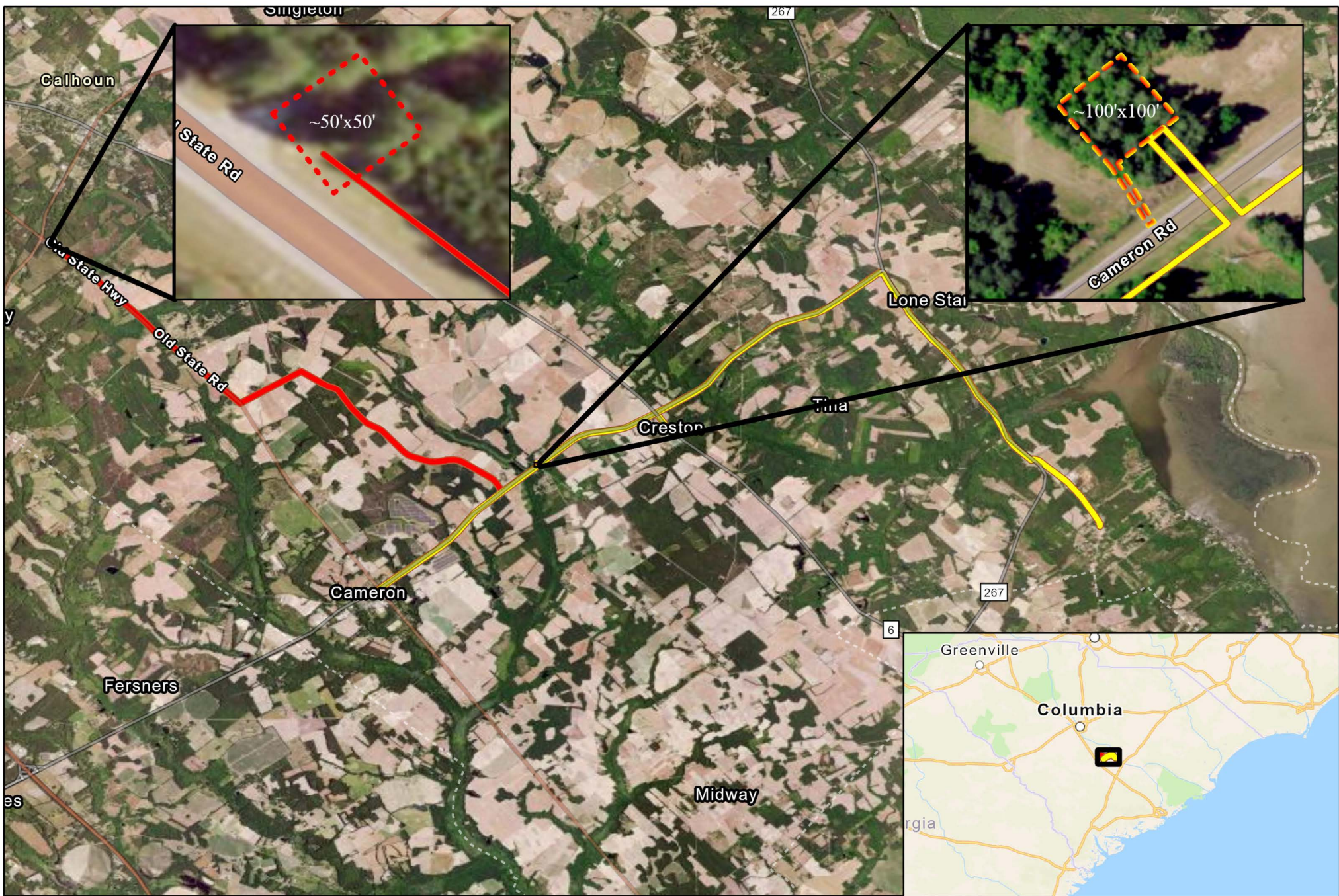
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Wenonah G. Haire, PhD  
Catawba Indian Nation  
Tribal Historic Preservation Officer  
1536 Tom Stevens Road  
Rock Hill, SC 29730

Dear Dr. Haire:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

USACE, in collaboration with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, proposes extending a potable water transmission main near Elloree, SC. The project will be constructed in two phases as detailed below. This project is authorized under the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), enabling USACE to assist with water and wastewater infrastructure projects.

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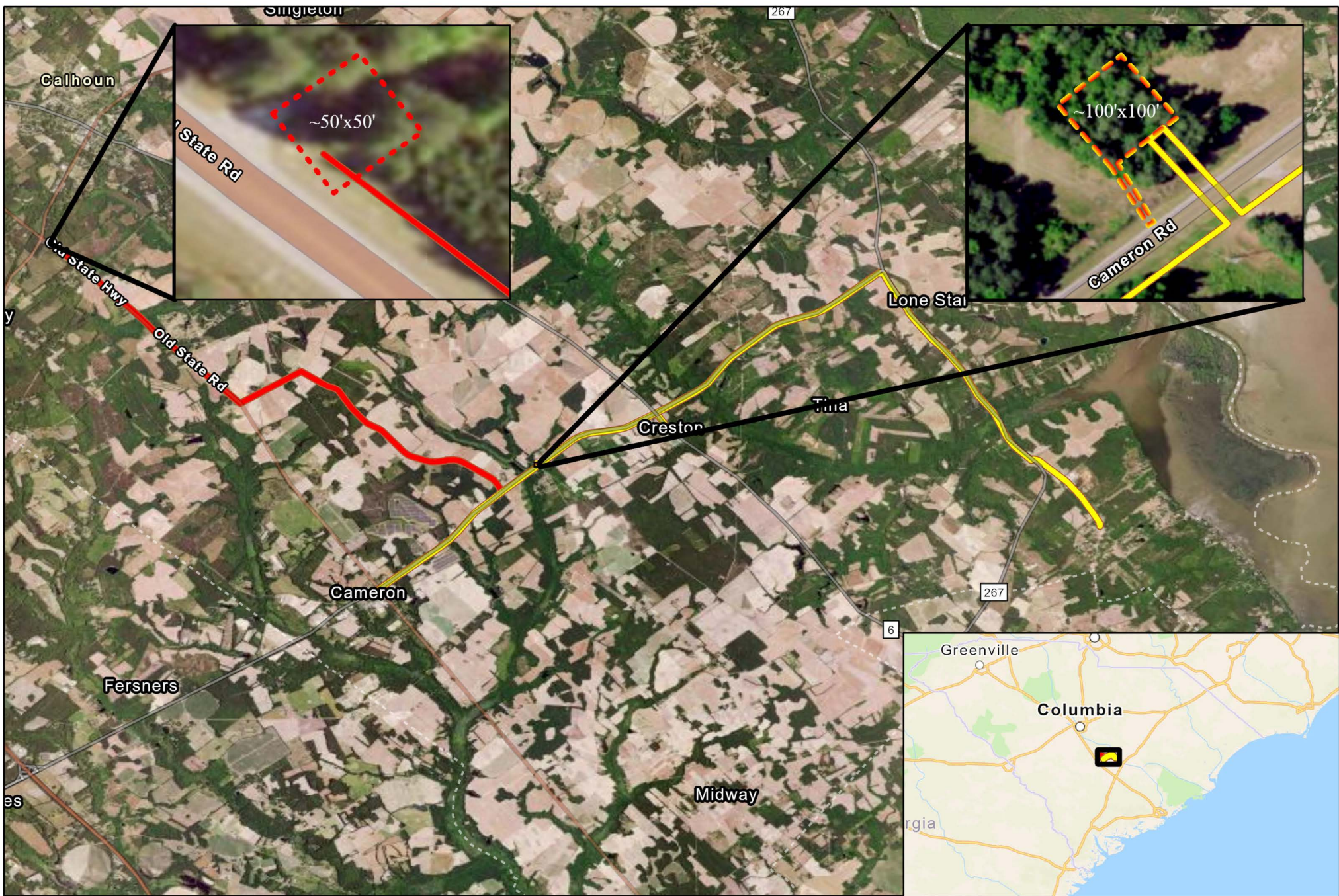
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









## LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







**DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT  
69 A HAGOOD AVENUE  
CHARLESTON SC 29403-5107**

July 30, 2024

SUBJECT: Calhoun Reach Transmission Mains Project, Calhoun County, South Carolina

Ms. Karen Brunso  
The Chickasaw Nation  
Tribal Historic Preservation Officer  
PO Box 1548  
Ada, OK 74281-1548

Dear Ms. Brunso:

The U.S. Army Corps of Engineers (USACE) is consulting with your office regarding the proposed Calhoun Reach Transmission Mains Project in Calhoun County, South Carolina. USACE is seeking your concurrence with its determination of no effect on historic properties for this project.

USACE, in collaboration with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, proposes extending a potable water transmission main near Elloree, SC. The project will be constructed in two phases as detailed below. This project is authorized under the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), enabling USACE to assist with water and wastewater infrastructure projects.

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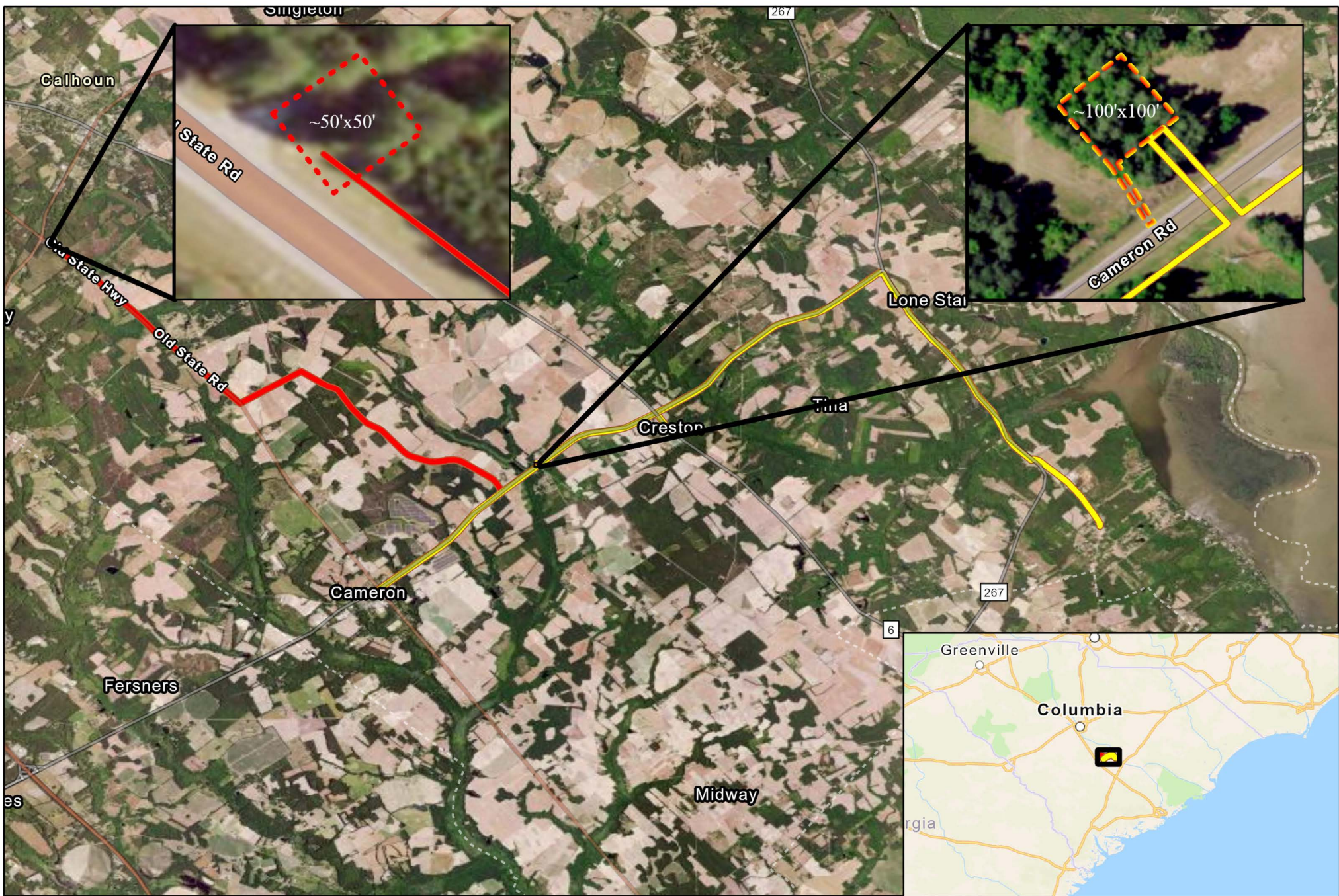
Sincerely,



Nancy A. Parrish  
Chief, Planning and Environmental Branch

Enclosures









# LMRWS Calhoun Reach Alignments and Stations



0 0.97 1.95 3.9 5.85 Miles

 Booster Pump Station
  Phase I  
 Master Meter Station
  Phase II







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**CHEROKEE NATION®**  
P.O. Box 948 • Tahlequah, OK 74465-0948  
918-453-5000 • [www.cherokee.org](http://www.cherokee.org)

**Chuck Hoskin Jr.**  
*Principal Chief*  
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**Bryan Warner**  
*Deputy Principal Chief*  
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September 10, 2024

Niko Brown  
United States Army Corps of Engineers  
Nantahala National Forest  
123 Woodland Drive  
Murphy, NC 28906

Re: Calhoun Reach Transmission Mains, Calhoun County, South Carolina  
Cameron and St. Matthews

Dear Niko Brown:

The Cherokee Nation (Nation) is in receipt of your correspondence about and related reports for the proposed **Calhoun Reach Transmission Mains**, and appreciates the opportunity to provide comment upon this project. This communication is intended for government-to-government consultation with a sovereign federally recognized Tribal Nation. Information received in consultation will be deemed confidential unless explicit consent is provided by the Nation.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office (Office) reviewed this project, cross referenced the project's legal description against our information, and found no instances where this project intersects or adjoins such resources. Thus, the Nation does not foresee this project imparting impacts to Cherokee cultural resources at this time.

However, the Nation requests that the United States Army Corps of Engineers (USACE) halt all project activities immediately and re-contact our Office for further consultation if items of cultural significance are discovered during the course of this project. Additionally, the Nation requests that the USACE conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer  
Cherokee Nation Tribal Historic Preservation Office  
[elizabeth-toombs@cherokee.org](mailto:elizabeth-toombs@cherokee.org)  
918.453.5389



**EASTERN SHAWNEE**  
**CULTURAL PRESERVATION DEPARTMENT**  
70500 East 128 Road, Wyandotte, OK 74370

October 3, 2024  
USACE-Charleston  
69-A-Hagood Avenue  
Charleston, SC 29403-5107

**RE: *Calhoun Reach Transmission Mains Project, Calhoun County, SC***

Dear Mr. Brown,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Calhoun County, SC. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a)). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.

Sincerely,

Lora Nuckolls, Tribal Historic Preservation Officer (THPO)  
Eastern Shawnee Tribe of Oklahoma  
(918) 238-5151 Ext:1840  
THPO@estoo.net

**From:** [Lesefiche Notification](#)  
**To:** [Brown, Niko B. CIV.USARMY.CESAC \(USA\)](#)  
**Subject:** [Non-DoD Source] Section 106 Consultation - Calhoun Reach Transmission Mains  
**Date:** Wednesday, October 16, 2024 4:47:06 PM

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This email is in response to Calhoun Reach Transmission Mains. The project is out of the Shawnee Tribe's area of interest. If you have any questions, you may contact me via email at [Section106@shawnee-tribe.com](mailto:Section106@shawnee-tribe.com).

Thank you for giving us the opportunity to comment on this project.

Sincerely,



**Erin Paden**

TRIBAL HISTORIC PRESERVATION  
SPECIALIST

**Office:** (918) 542-2441, x140

Email: [epaden@shawnee-tribe.com](mailto:epaden@shawnee-tribe.com)

29 S Hwy 69A

Miami, OK 74354

[shawnee-tribe.com](http://shawnee-tribe.com)





November 13, 2024

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District  
[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)

Re: Calhoun Reach Transmission Mains Project, Phase I Cultural Resource Surveys for Cameron Reach  
(Phase 1 of Project) and St. Matthews Reach (Phase 2 of Project)  
Calhoun County, South Carolina  
SHPO Project No. 24-RL0261

Dear Mr. Brown:

Thank you for your initial project review submittal, which we received electronically on August 14, 2024, regarding the above referenced undertaking and draft surveys. We also received your July 30, 2024 letter, map, and the draft reports, *Phase I Cultural Resource Survey of Approximately 13.35 Miles for the Proposed Cameron to St. Matthews Water Main Project – Cameron Reach, Calhoun County, South Carolina* and *Phase I Cultural Resource Survey of Approximately 8.41 Miles for the Proposed Cameron to St. Matthews Water Main Project – St. Matthews Reach, Calhoun County, South Carolina* ((dated July 2024). Our office provided initial comments on the draft reports and requested additional information via email on September 13, 2024. Thank you for providing the revised draft survey reports, survey forms, and photographs addressing our comments and concerns on October 24, 2024 and October 31, 2024. The State Historic Preservation Office (SHPO) is providing comments to the US Navy pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes including those with state recognition, local governments, or the public.

The cultural resources surveys identified eight archaeological sites, 38CL117-124, fifteen historic architectural resources, SHPO Site Numbers 0069 through 0084, including 3 cemeteries (SHPO Site Nos. 0072/38CL125, 0077/38CL126, and 0078/38CL127), and 5 archaeological isolated finds. None of these resources are recommended as eligible for inclusion in the National Register of Historic Places, with the exception of SHPO Site Number 0072, which is recommended as requiring additional research to determine National Register eligibility. Our office concurs with these recommendations. Based on the description of the undertaking's Areas of Potential Effect (APEs) and the identification of historic properties in the APEs, our office concurs with the assessment that no properties listed in or eligible for listing in the National Register of Historic Places will be affected by this project.

If archaeological materials are encountered during construction, the procedures codified at 36 CFR 800.13(b) will apply. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal materials. The federal agency or the applicant receiving federal assistance should contact our office immediately.

Our office accepts the draft report and survey forms/photographs as final. We made minor revisions to the survey forms. To complete the reporting process, please provide at least three (3) hard copies of a final report for each survey: one (1) bound and one (1) unbound hard copies and a digital copy in ADOBE Acrobat PDF format for SCIAA, and one (1) bound hard copy for the SHPO. Investigators should send all copies directly to the SHPO. The

SHPO will distribute the appropriate copies to SCIAA.

Please ensure that a copy of our comments letter is included in the Appendices and Attachments of the final report.

Please provide GIS shapefiles for the surveyed areas and architectural sites. Shapefiles should be compatible with ArcGIS (.shp file format) and should be sent as a bundle in .zip format. For additional information, please see our [GIS Data Submission Requirements](#).

Please refer to SHPO Project Number 24-RL0261 in any future correspondence regarding this project. If you have any questions, please contact me at (803) 896-6129 or [jsylvest@scdah.sc.gov](mailto:jsylvest@scdah.sc.gov).

Sincerely,

*John D. Sylvest*

John D. Sylvest  
Supervisor of Survey and Review & Compliance Programs  
State Historic Preservation Office

cc: [Mills.Dorn@terracon.com](mailto:Mills.Dorn@terracon.com)

**Calhoun Reach Transmission Mains  
Calhoun County, South Carolina**

**Environmental Assessment: Appendix B  
ESA Section 7 Compliance Record**

Prepared by:

United States Army Corps of Engineers

Charleston District



November 2024



## 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:

06/05/2024 16:05:33 UTC

Project Code: 2024-0099849

Project Name: Calhoun Reach - Lake Marion Water Supply

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, intentional or unintentional, 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>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. 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
- Marine Mammals
- Wetlands

## 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

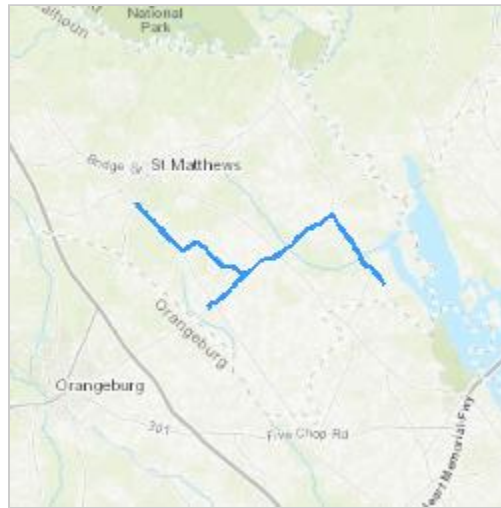
(843) 727-4707

## PROJECT SUMMARY

Project Code: 2024-0099849  
Project Name: Calhoun Reach - Lake Marion Water Supply  
Project Type: Water Supply Pipeline - New Constr - Below Ground  
Project Description: This project involves construction of about 18 miles of water supply pipeline through rural communities of Calhoun County including Cameron and St. Matthews areas. The pipeline would be installed along existing DOT ROWs and may involve some degree of wetland fill or tree cutting.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.59854875,-80.65508657170832,14z>



Counties: Calhoun County, South Carolina

## ENDANGERED SPECIES ACT SPECIES

There is a total of 4 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<sup>1</sup>, 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.

- 
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
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <b><i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i></b> Species profile: <a href="https://ecos.fws.gov/ecp/species/4469">https://ecos.fws.gov/ecp/species/4469</a>	Threatened

## BIRDS

NAME	STATUS
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7614">https://ecos.fws.gov/ecp/species/7614</a>	Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## 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<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

- 
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 likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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
Bald Eagle <i>Haliaeetus leucocephalus</i> 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. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	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 (■)

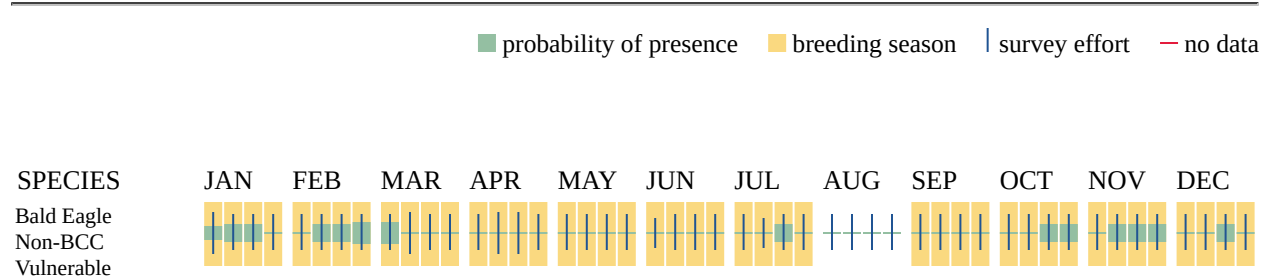
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

**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.



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 conservation 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

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

- 
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
<b>American Kestrel <i>Falco sparverius paulus</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9587">https://ecos.fws.gov/ecp/species/9587</a>	Breeds Apr 1 to Aug 31
<b>Bachman's Sparrow <i>Peucaea aestivalis</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/6177">https://ecos.fws.gov/ecp/species/6177</a>	Breeds May 1 to Sep 30
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> 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. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Sep 1 to Jul 31
<b>Brown-headed Nuthatch <i>Sitta pusilla</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9427">https://ecos.fws.gov/ecp/species/9427</a>	Breeds Mar 1 to Jul 15
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9406">https://ecos.fws.gov/ecp/species/9406</a>	Breeds Mar 15 to Aug 25
<b>Chuck-will's-widow <i>Antrostomus carolinensis</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9604">https://ecos.fws.gov/ecp/species/9604</a>	Breeds May 10 to Jul 10
<b>Coastal (waynes) Black-throated Green Warbler <i>Setophaga virens waynei</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/11879">https://ecos.fws.gov/ecp/species/11879</a>	Breeds May 1 to Aug 15
<b>Eastern Whip-poor-will <i>Antrostomus vociferus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/10678">https://ecos.fws.gov/ecp/species/10678</a>	Breeds May 1 to Aug 20
<b>Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/8329">https://ecos.fws.gov/ecp/species/8329</a>	Breeds Jun 1 to Aug 20



NAME	BREEDING SEASON
<b>Henslow's Sparrow <i>Centronyx henslowii</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3941">https://ecos.fws.gov/ecp/species/3941</a>	Breeds elsewhere
<b>Kentucky Warbler <i>Geothlypis formosa</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9443">https://ecos.fws.gov/ecp/species/9443</a>	Breeds Apr 20 to Aug 20
<b>King Rail <i>Rallus elegans</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8936">https://ecos.fws.gov/ecp/species/8936</a>	Breeds May 1 to Sep 5
<b>Le Conte's Sparrow <i>Ammospiza leconteii</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9469">https://ecos.fws.gov/ecp/species/9469</a>	Breeds elsewhere
<b>Lesser Yellowlegs <i>Tringa flavipes</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Painted Bunting <i>Passerina ciris</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9511">https://ecos.fws.gov/ecp/species/9511</a>	Breeds Apr 25 to Aug 15
<b>Pectoral Sandpiper <i>Calidris melanotos</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9561">https://ecos.fws.gov/ecp/species/9561</a>	Breeds elsewhere
<b>Prairie Warbler <i>Setophaga discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9513">https://ecos.fws.gov/ecp/species/9513</a>	Breeds May 1 to Jul 31
<b>Prothonotary Warbler <i>Protonotaria citrea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9439">https://ecos.fws.gov/ecp/species/9439</a>	Breeds Apr 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a>	Breeds May 10 to Sep 10

NAME	BREEDING SEASON
<b>Rusty Blackbird</b> <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9478">https://ecos.fws.gov/ecp/species/9478</a>	Breeds elsewhere
<b>Short-billed Dowitcher</b> <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
<b>Swallow-tailed Kite</b> <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8938">https://ecos.fws.gov/ecp/species/8938</a>	Breeds Mar 10 to Jun 30
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9431">https://ecos.fws.gov/ecp/species/9431</a>	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.

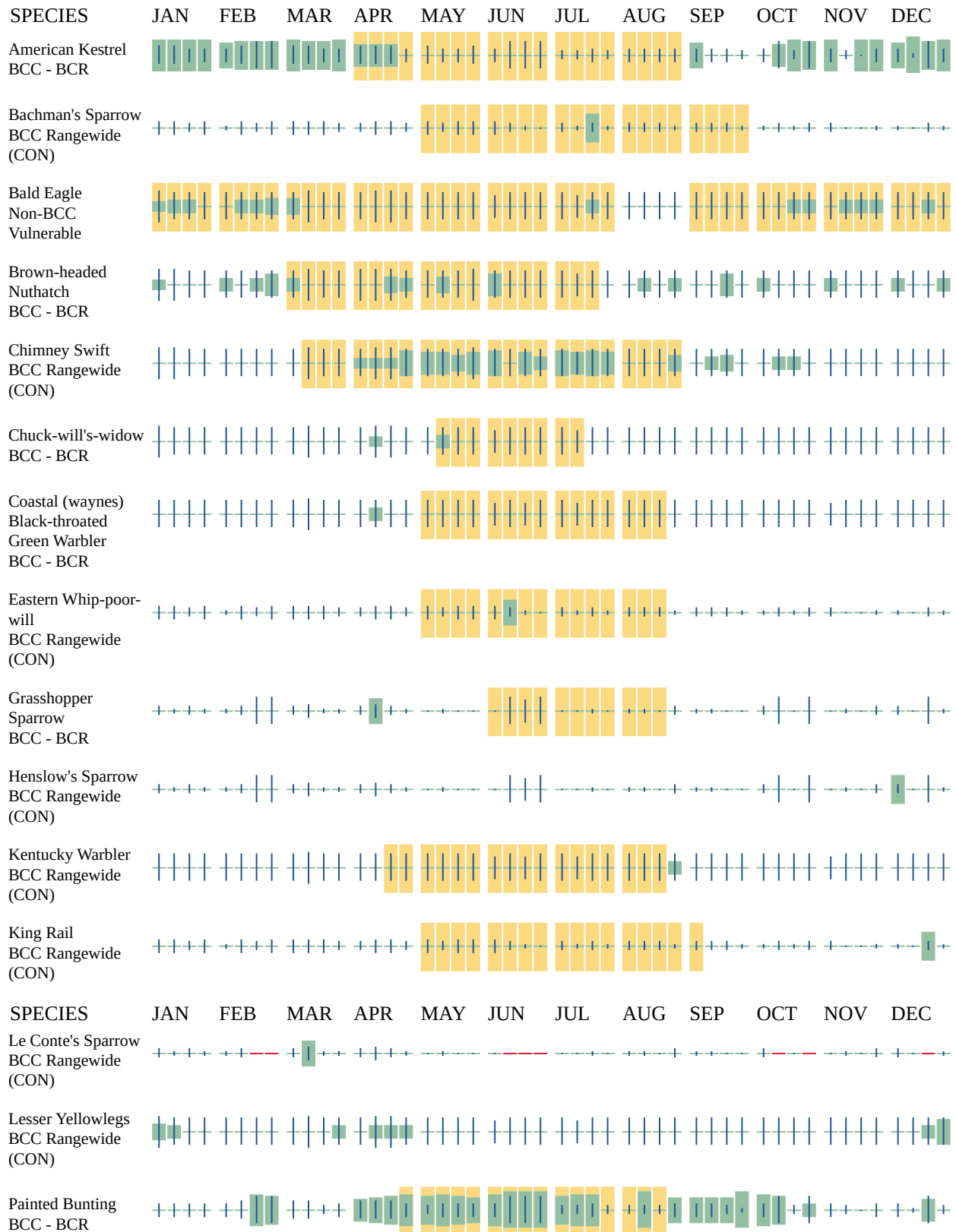
### Survey Effort (|)

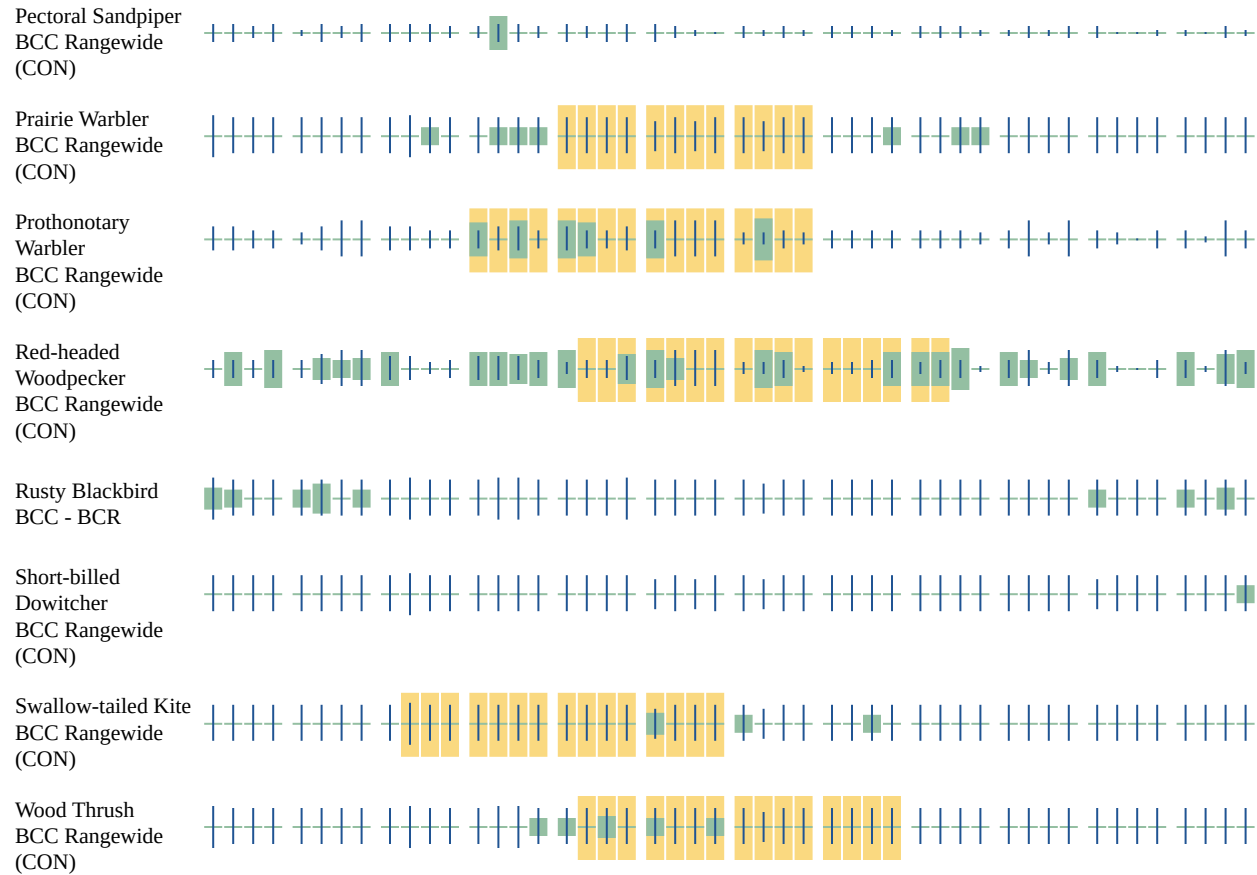
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ 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 conservation 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>

## MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act<sup>1</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>2</sup>.

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears,



manatees, and dugongs] and NOAA Fisheries<sup>3</sup> [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

- 
1. The [Endangered Species Act](#) (ESA) of 1973.
  2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
  3. [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.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1C

### FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C
- PFO3/1B
- PSS1B
- PSS1Ch
- PFO1A

- PFO1/2C
- PFO1B

FRESHWATER POND

- PUBHh

RIVERINE

- R5UBH
- R4SBC

## **IPAC USER CONTACT INFORMATION**

Agency: Army Corps of Engineers

Name: Niko Brown

Address: 69A Hagood Ave

City: Charleston

State: SC

Zip: 29403

Email: niko.r.brown@usace.army.mil

Phone: 8433298145



**DEPARTMENT OF THE ARMY**  
**CORPS OF ENGINEERS, CHARLESTON DISTRICT**  
**69A HAGOOD AVENUE**  
**CHARLESTON, SOUTH CAROLINA 29403-5107**

June 5, 2024

Christy Johnson-Hughes  
Ecological Services, South Carolina Field Office  
U.S. Fish and Wildlife Service  
176 Croghan Spur Road, Suite 200  
Charleston, SC 29407

Dear Christy Johnson-Hughes:

The U.S. Army Corps of Engineers (USACE), Charleston District, proposes to fund the Lake Marion Water Supply – Calhoun Reach project as described in the attachment to this letter. We request initiation of informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) for the proposed project. Based on analysis of potential project effects, USACE has made a determination of *may affect, not likely to adversely affect* for an ESA-listed species. Our supporting analysis attached. We request your written concurrence with our determinations.

Pursuant to our request for informal consultation, we are providing the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or critical habitat that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or critical habitat.

USACE has reviewed the proposed project for its potential effects to ESA-listed species and their critical habitat. Based on the attached analysis, USACE has made a determination of *may affect, not likely to adversely affect* for the tricolored bat and red-cockaded woodpecker. We request your concurrence with this determination.

If you have questions, please do not hesitate to contact Mr. Niko Brown, Biologist at [niko.r.brown@usace.army.mil](mailto:niko.r.brown@usace.army.mil).

Sincerely,

Nancy Parrish,  
Chief of Planning and Environmental Branch



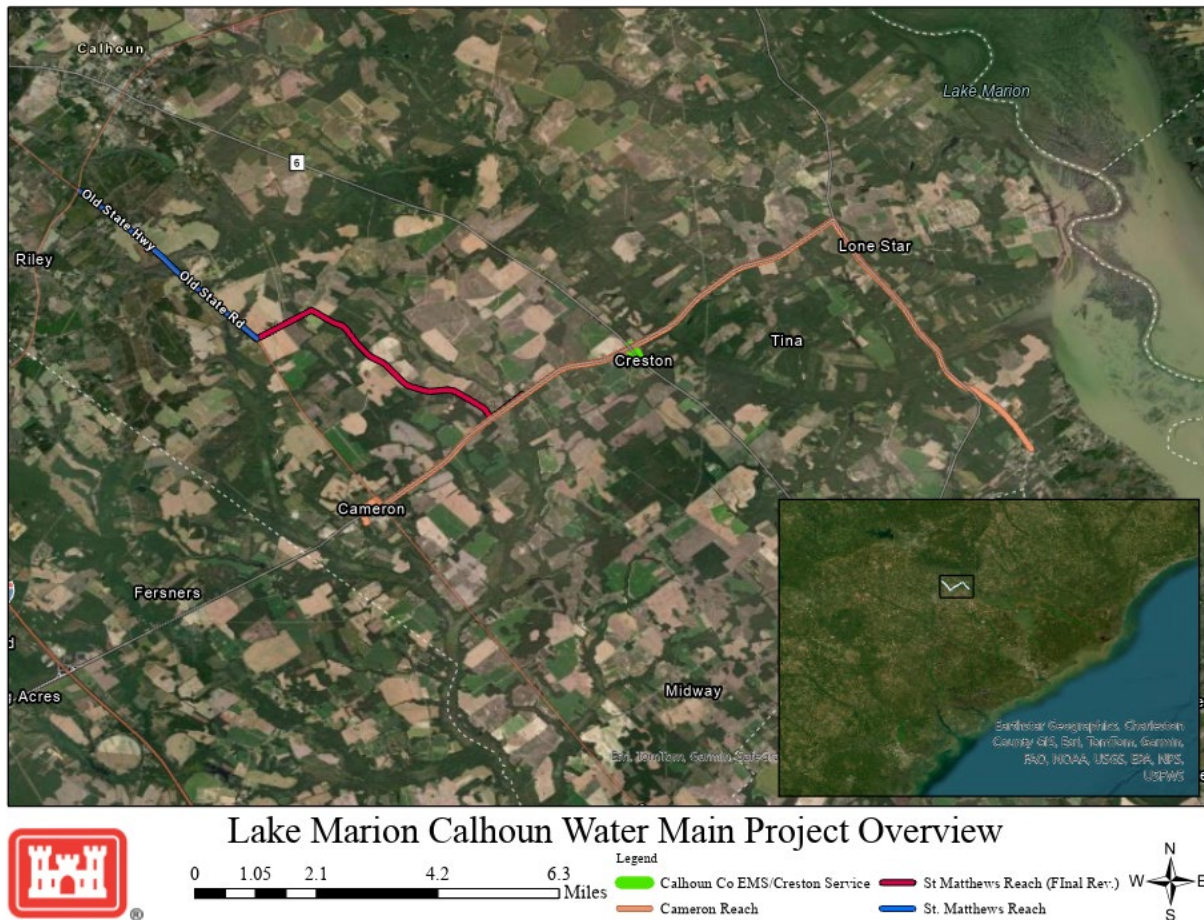
## **Description of Federal Action**

The Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), as amended, specifically authorized USACE to provide assistance to non-federal interests for carrying out water-related environmental infrastructure and resources protection and development projects. Congress has subsequently appropriated funds for USACE to participate in planning, design and construction of the Lake Marion Regional Water System (LMRWS). The Lake Marion Regional Water Agency (LMRWA) is serving as the non-federal sponsor and has partnered with the South Carolina Public Service Authority (Santee Cooper) to serve as the LMRWA's technical representative for the project.

Under the Proposed Action Alternative, expansion of the LMRWS into municipalities of Calhoun County will occur in two phases. Phase I begins with installation of about 13.9 miles of a 12"-diameter potable water transmission main at the water tank serving Northeastern Elloree, SC (80.5506203 W, 33.5753202 N) where Old River Road forks with Tee Vee Road (Figure 1). This reach of the line is referred to herein as the Cameron Reach. The line first extends north approximately 1.4 mi along the eastern side of Old River Rd to where Old River Rd meets McCords Ferry Rd (SC-267). The line then crosses McCords Ferry Rd and continues north on its western side 3.5 mi to Lone Star (80.5998302 W, 33.6325825 N). From Lone Star the line extends west along the southern side of Cameron Rd (SC-33) about 3.762 mi where the line branches in Creston (80.6505632 W, 33.6007831 N) and continues south for about 0.2 mi on the eastern side of Old Number Six Hwy (SC-6) to the Calhoun Co EMS station (80.6485797 W, 33.5984476 N). This short branching to the EMS station is herein referred to as the Calhoun Co EMS/Creston Service Reach. The line continues west about 1.8 mi on Cameron Rd to its terminus perpendicular to the proposed location of the St. Matthews Booster Station near Nates Store Rd (80.677176 W, 33.589036 N).

Phase II construction will consist of about 8.4 miles of line and originate from the St. Matthews Booster Station and continue about 0.6 miles on the northern side of Cameron Rd southwest towards Cameron until the line crosses Mossdale Rd. The line will continue on the western side of Mossdale Rd north about 3.5 miles to Belleville Rd. The line will continue on the southern side of Belleville Rd going west about 0.9 miles until it crosses Old State Rd (US Highway 176). The line will follow the eastern side of Old State Rd about 3.4 miles to its terminus at the St. Matthews Master Meter Station (80.786774 W, 33.638869 N).

Construction would involve various forms of pipeline installation including open-cut, jack-and-bore, or horizontal directional drilling. Some unavoidable impacts to wetlands and forested areas may occur where alternatives do not exist. However, tree removal would largely be limited to narrow strips encroaching into existing Department of Transportation (DOT) right-of-way (ROW).



**Figure 1. Calhoun Reach Project Area**

## Species Assessment and Effect Determination

On 5 June 2024, USACE obtained a comprehensive list of ESA species occurring in the project area from USFWS. The list includes 4 species and no critical habitat designations (Table 1).

**Table 1 List of species identified under ESA present in project area as determined by USFWS**

Common Name	Scientific Name	Listing <sup>1</sup>	Species Determination <sup>2</sup>
Tricolored Bat	<i>Perimyotis subflavus</i>	PE	MANLAA
West Indian Manatee	<i>Trichechus manatus</i>	T	NE
Red-cockaded Woodpecker	<i>Picoides borealis</i>	E	MANLAA
Monarch Butterfly	<i>Danaus plexippus</i>	C	NE

<sup>1</sup>Species are designated as either “T” if listed threatened, “E” if listed as endangered or “PE” if listed as proposed endangered

<sup>2</sup>Determinations are designated as either “NE” for *no effect* or “MANLAA” for *may affect, not likely to adversely affect*

Upon review, USACE made a determination of *may affect, but not likely to adversely affect* for the tricolored bat and red-cockaded woodpecker. A *no effect* determination was made for all other listed species under consideration.

## **Tricolored Bat & Red-cockaded Woodpecker**

A general desktop analysis of roadside habitat along the proposed pipeline corridor shows a small percentage of the action area includes some potential roosting trees or hibernacula for tricolored bat and some potential foraging habitat for red-cockaded woodpecker. The extent to which these species would be adversely impacted by project construction is dependent largely upon the need for any tree removal and the habitat value of those trees. Most or all this work will occur in a ROW where vehicular traffic and routine maintenance of existing infrastructure already occurs. Some additional clearing of trees may be necessary in some segments along this ROW, however, the number of trees identified for removal in even marginally valuable habitat is likely to be very low.

### **Summary**

USACE has made a determination of *may affect, not likely to adversely affect* for tricolored bat and red-cockaded woodpecker from the implementation of the proposed action. The proposed Federal action will have no effect on the remaining species in Table 1.

In accordance with Section 7 of the ESA, USACE requests concurrence with the above determinations. Please provide your response and/or comments within 60 calendar days of receipt of this letter.

**From:** [Charleston Regulatory, FW4](#)  
**To:** [Brown, Niko R CIV USARMY CESAC \(USA\)](#)  
**Cc:** [Parrish, Nancy A CIV USARMY CESAC \(USA\)](#); [JohnsonHughes, Christy](#)  
**Subject:** [Non-DoD Source] Re: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849  
**Date:** Monday, June 24, 2024 11:43:41 AM

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FWS Project Code: 2024-0099849

The U.S. Fish and Wildlife Service has reviewed the Calhoun Reach - Lake Marion Water Supply Project, in Calhoun County, South Carolina. 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 Red-cockaded woodpecker (*Picoides borealis*). Based on the justification provided, the Service concurs with your determination. Consultation is not necessary for *no effect* determinations. 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.

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.

Melanie

---

**From:** Brown, Niko R CIV USARMY CESAC (USA) <Niko.R.Brown@usace.army.mil>  
**Sent:** Thursday, June 6, 2024 9:02 AM  
**To:** Charleston Regulatory, FW4 <charleston\_regulatory@fws.gov>  
**Cc:** Parrish, Nancy A CIV USARMY CESAC (USA) <Nancy.A.Parrish@usace.army.mil>  
**Subject:** [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good morning,

The U.S. Army Corps of Engineers (USACE), Charleston District, proposes to fund



construction of the Calhoun Reach of the Lake Marion Water Supply project described in the attached letter. In brief, about 22 miles total of water transmission main is proposed for installation in existing DOT ROW corridors along rural roadways of Calhoun County in communities including Elloree, Lone Star, Cameron, and St. Matthews. The water utility line will cross some wetlands and require some tree removal in a small proportion of areas where trees mostly encroach into the ROW. More details and analysis of this project may be reviewed in a draft Environmental Assessment prepared by USACE which will be available in the near future.

USACE has reviewed the proposed project for its potential effects to ESA-listed species and their critical habitat. Based on the attached analysis, USACE has made a determination of *may affect, not likely to adversely affect* for the tricolored bat and red-cockaded woodpecker. We request your concurrence with this determination.

Please let me know if you have any questions or require additional information.

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District

In-Office: T, W  
Office Phone: (843) 329-8145

Telework: M, R, F  
Cell Phone: (603) 258-8589

**From:** [Charleston Regulatory, FW4](#)  
**To:** [Brown, Niko R CIV USARMY CESAC \(USA\)](#); [Olds, Melanie J](#)  
**Cc:** [Shirey, Alan D CIV USARMY CESAC \(USA\)](#)  
**Subject:** [Non-DoD Source] Re: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849  
**Date:** Tuesday, October 29, 2024 10:44:13 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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Niko,

I would agree that with the use of the seasonal restrictions of December 15 - February 15 (winter torpor) and May 1 - July 15 (pupping season) for tree clearing that a NLAA would be an appropriate determination for this project. I think in the determination key if you were able to say "yes" to the seasonal restrictions for the drilling it would have changed to a NLAA in there but it doesn't really have the question to tease apart the blasting from HDD.

Melanie

---

**From:** Brown, Niko R CIV USARMY CESAC (USA) <Niko.R.Brown@usace.army.mil>  
**Sent:** Thursday, October 24, 2024 4:26 PM  
**To:** Charleston Regulatory, FW4 <charleston\_regulatory@fws.gov>; Olds, Melanie J <melanie\_olds@fws.gov>  
**Cc:** Shirey, Alan D CIV USARMY CESAC (USA) <Alan.D.Shirey@usace.army.mil>  
**Subject:** RE: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

Melanie,

Thanks for the quick turnaround! The use of drilling methods (including horizontal directional drilling and jack-and-bore) would really just include impacts associated with noise. There is no blasting associated with the proposed action and there is no subterranean hibernacula that would be expected to be impacted. I came across a multi-species habitat conservation plan for NLEB that notes use of the drilling methods outlined for this project (i.e., horizontal directional drilling) equated to a MANLAA determination with the following avoidance and minimization measure (AMM):

Activities (e.g., drilling) involving continuing (i.e., longer than 24 hours) noise disturbances greater than 75 decibels measured on the A scale (e.g., loud machinery) within a one-mile radius of known or presumed occupied hibernacula should be avoided during the spring staging (April 1 to May 31) and fall swarming (August 15 to November 14) seasons.

Based on data from SCDNR, there have been two element occurrences for tricolored bat in the project area where this AMM could be implemented, however, as it would apply to the pup season and winter torpor season in coastal SC. It should also be noted, as was done in the dkey, that operation would not occur at night, and thus, not occur continually. Noise would be

limited almost entirely to roadway ROWs and the small number of temporary easement areas adjacent to. So, it is expected this noise disturbance would only be moderately elevated above baseline and only during working hours for a duration long enough to install pipeline in segments.

Otherwise, my thoughts were, since tree cutting would occur in one fell swoop at each reach for this project, we would need to implement the conservation measures identified in the guidance document where during winter torpor and pup season tree cutting could not occur as there are documented occurrences of tricolored bat in the project area by SCDNR within 1.5 miles of a TCB capture or acoustic record.

This, by all other measures I am aware of, are sufficient for a MANLAA determination to hold. I don't need a concurrence letter or anything today. I can submit another letter requesting informal consult that incorporates the above information if you prefer.

What I would ask for sooner if possible is for any support for these conservation measures or additional measures you think may be relevant to be included in our specification to be advertised.

Thanks,

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District  
(603) 258-8589

---

**From:** Charleston Regulatory, FW4 <charleston\_regulatory@fws.gov>

**Sent:** Thursday, October 24, 2024 3:05 PM

**To:** Brown, Niko R CIV USARMY CESAC (USA) <Niko.R.Brown@usace.army.mil>; Olds, Melanie J <melanie\_olds@fws.gov>

**Cc:** Shirey, Alan D CIV USARMY CESAC (USA) <Alan.D.Shirey@usace.army.mil>

**Subject:** [Non-DoD Source] Re: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

Hi Niko,

I didn't realize nor did the last determination key ask questions regarding blasting or drilling. I believe that is why this is returning a "may affect". The potential impacts for that activity may need to be further analyzed. I would recommend gathering up further information regarding those potential impacts and either see if based on those impacts a NLAA would still be the appropriate determination or if we need to have further discussions. Please be patience as we work to understand the new guidance as well.

Melanie

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**From:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>

**Sent:** Thursday, October 24, 2024 11:38 AM

**To:** Olds, Melanie J <[melanie\\_old@fws.gov](mailto:melanie_old@fws.gov)>; Charleston Regulatory, FW4 <[charleston\\_regulatory@fws.gov](mailto:charleston_regulatory@fws.gov)>

**Cc:** Shirey, Alan D CIV USARMY CESAC (USA) <[Alan.D.Shirey@usace.army.mil](mailto:Alan.D.Shirey@usace.army.mil)>

**Subject:** RE: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

Hey again Melanie:

I wanted to follow-up on this now that the consultation guidance has been finalized and the dkey is available for tricolored bat. I did the dkey for the project in this email chain and received a “may affect” rating. According to the guidance, the field office will review project-specific information and provide concurrence or not on determinations. I would say that our initial determination in our June 6, 2024 letter to the SCEFO still stands and supplement that letter with information that you noted in the previous email. The 95% design to date indicates that the following acreage of tree removal would be required:

Cameron Reach: 0.45 acres

St Matthews Reach: 0.21 acres

We are currently in the process of preparing specifications to be included in the advertisement for contractors to bid on. So, if there are conservation measures that need to be included for a MANLAA to stand or that you recommend be included with the anticipation that a MALAA is the appropriate determination, it would be extremely appreciated to have this information.

Please let me know however I can help or if you have any questions that I can answer.

Thank you!

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District  
(603) 258-8589

---

**From:** Olds, Melanie J <[melanie\\_old@fws.gov](mailto:melanie_old@fws.gov)>

**Sent:** Thursday, July 11, 2024 9:05 AM

**To:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>; Charleston Regulatory, FW4 <[charleston\\_regulatory@fws.gov](mailto:charleston_regulatory@fws.gov)>

**Cc:** JohnsonHughes, Christy <[christy\\_johnsonhughes@fws.gov](mailto:christy_johnsonhughes@fws.gov)>

**Subject:** [Non-DoD Source] Re: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

Morning Niko,

At this point in time the Service is not ready to concur with NLAA for tricolored bat. We are still waiting on final guidance. It is unclear based on the project description and



acres of trees that are to be removed what the impacts to TBC would be. We do have draft consultation guidance <https://www.fws.gov/library/collections/consultation-guidance-development-projects> and in that document you can see the clearing acres for TCB that we think would fall within the NLAA. I know that many projects are stuck in this limbo and that some projects might need to come back and consult with us on TCB later.

*Melanie*

**Melanie Olds**

*Fish & Wildlife Biologist*

*Regulatory Team Lead/FERC Coordinator*

U.S. Fish and Wildlife Service  
South Carolina Ecological Services Field Office  
176 Croghan Spur Road, Suite 200  
Charleston, SC 29407  
Phone: (843) 534-0403



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.

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**From:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>  
**Sent:** Wednesday, July 10, 2024 1:17 PM  
**To:** Charleston Regulatory, FW4 <[charleston\\_regulatory@fws.gov](mailto:charleston_regulatory@fws.gov)>  
**Cc:** Olds, Melanie J <[melanie\\_old@fws.gov](mailto:melanie_old@fws.gov)>; JohnsonHughes, Christy <[christy\\_johnsonhughes@fws.gov](mailto:christy_johnsonhughes@fws.gov)>  
**Subject:** FW: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

Forwarding this follow-up email to Melanie to the broader regulatory office email in case Melanie is unavailable.

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District  
(603) 258-8589

---

**From:** Brown, Niko R CIV USARMY CESAC (USA)  
**Sent:** Monday, July 8, 2024 4:24 PM  
**To:** Olds, Melanie <[melanie\\_old@fws.gov](mailto:melanie_old@fws.gov)>  
**Cc:** JohnsonHughes, Christy <[christy\\_johnsonhughes@fws.gov](mailto:christy_johnsonhughes@fws.gov)>

**Subject:** RE: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

Melanie,

We made a MANLAA determination for the tricolored bat as an additional conference as part of our previous letter request for informal consultation on this project. There is no mention of the species here. Our intent was to avoid having to prepare informal consultation materials and reinitiating in the future should the species be listed before or during construction. Could you please advise?

Thank you!

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District  
(603) 258-8589

---

**From:** Charleston Regulatory, FW4 <[charleston\\_regulatory@fws.gov](mailto:charleston_regulatory@fws.gov)>

**Sent:** Monday, June 24, 2024 11:43 AM

**To:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>

**Cc:** Parrish, Nancy A CIV USARMY CESAC (USA) <[Nancy.A.Parrish@usace.army.mil](mailto:Nancy.A.Parrish@usace.army.mil)>; JohnsonHughes, Christy <[christy\\_johnsonhughes@fws.gov](mailto:christy_johnsonhughes@fws.gov)>

**Subject:** [Non-DoD Source] Re: [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

FWS Project Code: 2024-0099849

The U.S. Fish and Wildlife Service has reviewed the Calhoun Reach - Lake Marion Water Supply Project, in Calhoun County, South Carolina. 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 Red-cockaded woodpecker (*Picoides borealis*). Based on the justification provided, the Service concurs with your determination. Consultation is not necessary for *no effect* determinations. 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.

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.

Melanie

---

**From:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>  
**Sent:** Thursday, June 6, 2024 9:02 AM  
**To:** Charleston Regulatory, FW4 <[charleston\\_regulatory@fws.gov](mailto:charleston_regulatory@fws.gov)>  
**Cc:** Parrish, Nancy A CIV USARMY CESAC (USA) <[Nancy.A.Parrish@usace.army.mil](mailto:Nancy.A.Parrish@usace.army.mil)>  
**Subject:** [EXTERNAL] Informal Consult Request - Project Name: Calhoun Reach - Lake Marion Water Supply - Project Code: 2024-0099849

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good morning,

The U.S. Army Corps of Engineers (USACE), Charleston District, proposes to fund construction of the Calhoun Reach of the Lake Marion Water Supply project described in the attached letter. In brief, about 22 miles total of water transmission main is proposed for installation in existing DOT ROW corridors along rural roadways of Calhoun County in communities including Elloree, Lone Star, Cameron, and St. Matthews. The water utility line will cross some wetlands and require some tree removal in a small proportion of areas where trees mostly encroach into the ROW. More details and analysis of this project may be reviewed in a draft Environmental Assessment prepared by USACE which will be available in the near future.

USACE has reviewed the proposed project for its potential effects to ESA-listed species and their critical habitat. Based on the attached analysis, USACE has made a determination of *may affect, not likely to adversely affect* for the tricolored bat and red-cockaded woodpecker. We request your concurrence with this determination.

Please let me know if you have any questions or require additional information.

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District

In-Office: T, W  
Office Phone: (843) 329-8145

Telework: M, R, F  
Cell Phone: (603) 258-8589





**Calhoun Reach Transmission Mains  
Calhoun County, South Carolina**

**Environmental Assessment: Appendix C  
CWA Section 401 and 404 Compliance Record**

Prepared by:

United States Army Corps of Engineers

Charleston District



November 2024



DEPARTMENT OF THE ARMY  
CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A HAGOOD AVENUE  
CHARLESTON, SOUTH CAROLINA 29403-5107

June 12, 2024

Morgan Amedee  
Project Manager

Water Quality Certification & Wetlands Section  
S.C. Dept. of Health & Environment Control (SCDHEC)  
1362 McMillan Avenue, Suite 400  
Charleston, SC 29405

Dear Morgan:

The US Army Corps of Engineers (USACE) is proposing to construct a potable water main line to serve the citizens of Calhoun County in South Carolina. The Calhoun Reach Water Transmission Mains project is part of the overall Lake Marion Regional Water System. The Calhoun Reach extends the water system approximately 21.4 total miles from an existing water tower in Elloree, SC, and will be constructed in two phases consisting of a Cameron Reach and Calhoun County EMS/Creston Reach (Phase I) and St. Matthews Reach (Phase II). This project would serve the areas of Elloree, Lone Star, Creston and Cameron, and St. Matthews. Please see the *Description of Proposed Project* attached to this letter for more detail.

In accordance with Section 401 of the Clean Water Act (33 USC § 1341), USACE must obtain certification from the South Carolina Department of Health and Environmental Control (DHEC), Bureau of Water, that any proposed discharges will comply with the applicable provisions of the Clean Water Act. USACE has determined that the project meets the conditions outlined under the 2021 General State Certification for Nationwide Permit 58 and is requesting project authorization.

Thank you for your time, consideration, and assistance in this matter. If you require additional information or have any questions regarding the project, please do not hesitate to contact Niko Brown at (603)-258-8589 or [niko.r.brown@usace.army.mil](mailto:niko.r.brown@usace.army.mil).

Respectfully,

Nancy Parrish  
Chief Planning & Environmental Branch

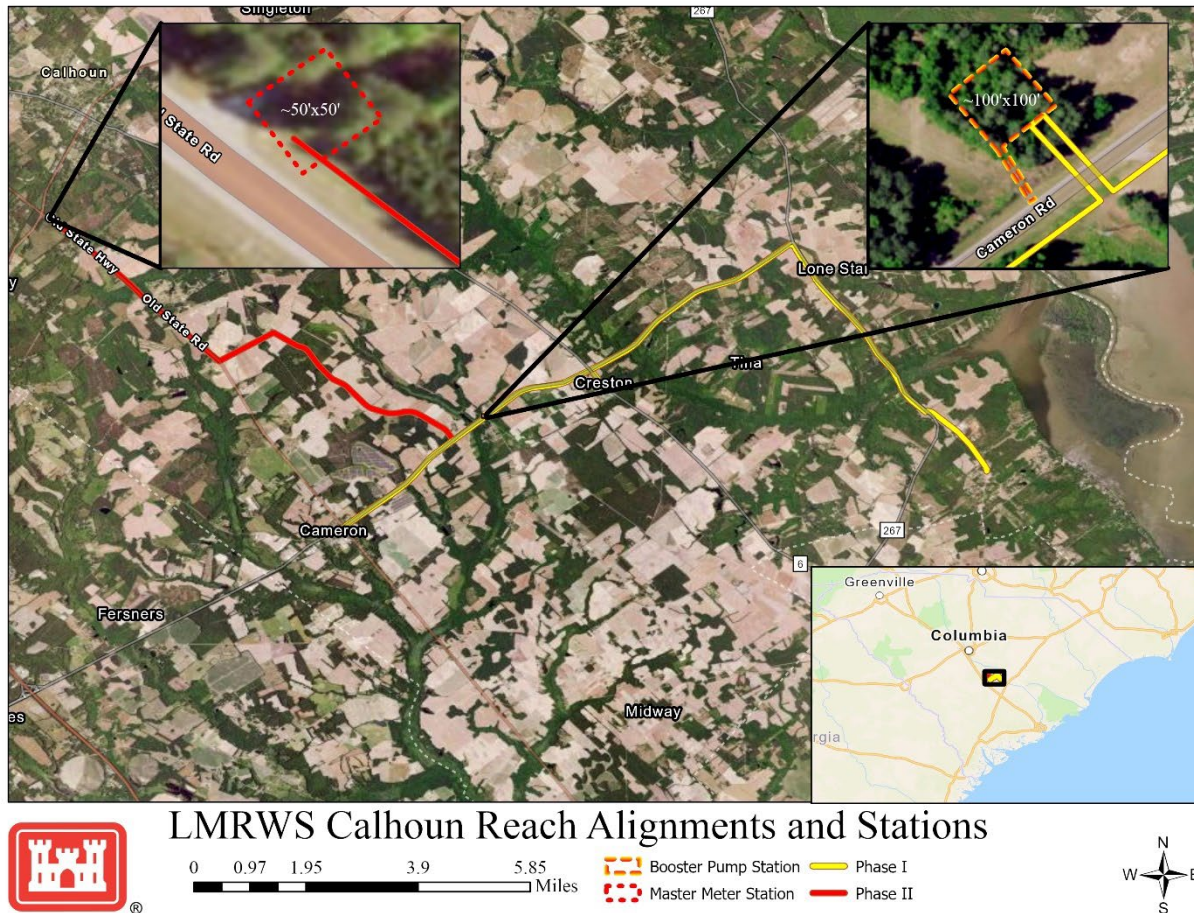
## **Description of Proposed Project:**

### *Project Area and Proposal*

Under the Proposed Action Alternative, expansion of the LMRWS into municipalities of Calhoun County will occur in two phases.

Phase I begins with installation of about 13.5 miles of a 12"-diameter potable water transmission main at the water tank serving northeastern Elloree, SC (80.5506203 W, 33.5753202 N) where Old River Road forks with Tee Vee Road (Figure 1). This reach is referred to herein as the Cameron Reach. The line extends north approximately 1.4 miles along Old River Rd to where Old River Rd meets McCords Ferry Rd (SC-267). The line then crosses McCords Ferry Rd and continues north 3.5 miles to Lone Star. From Lone Star the line extends west along Cameron Rd (SC-33) about 3.7 miles where the line branches in Creston and continues south for about 0.2 miles on Old Number Six Hwy (SC-6) to the Calhoun Co EMS station (80.6485797 W, 33.5984476 N). This short branching to the EMS station is herein referred to as the Calhoun Co EMS/Creston Service Reach. The line continues west about 1.8 miles on Cameron Rd before splitting perpendicular to the proposed location of a booster station near Nates Store Rd (80.677176 W, 33.589036 N). The line then continues west about 2.9 more miles on Cameron Rd. crossing Old State Rd. and terminating in Cameron (80.7133975°W, 33.5609603°N).

Phase II construction will consist of about 7.8 miles of line and originate from a valve in the Cameron Reach line at the intersection of Cameron Rd and Mossdale Rd (80.6849621°W, 33.5831681°N). The line will continue along Mossdale Rd north about 3.5 miles to Belleville Rd. The line will continue on Belleville Rd going west about 0.9 miles until it reaches Old State Rd (US Highway 176). The line will follow Old State Rd north about 3.4 miles to its terminus at the location of a proposed master meter station (80.786774 W, 33.638869 N).



*Figure 1. Calhoun Reach Proposed Alignments and Stations*

Construction will largely consist of creating an excavated trench and placement of pipeline followed by a 3-ft backfill cover, while directional drilling or jack-and-bore will be used where appropriate (i.e. wetlands, sensitive areas, etc.). Some unavoidable impacts to wetlands and forested areas may occur where alternatives do not exist. However, tree removal would largely be limited to narrow strips encroaching into existing Department of Transportation (DOT) right-of-way (ROW) and where necessary at the locations of the proposed booster pump station (expected to be about 100'x100') and master meter station (expected to be about 50'x50'). Phase I construction would exist as an independently functioning project regardless of whether Phase II construction or construction of the booster station or master meter station occurs. Construction of the booster station is anticipated to occur in Phase I, but this has not been determined at this time. Project construction is estimated to occur over 1-2 years.

Water would be supplied from an existing water treatment plant located on Lake Marion near the Town of Santee. The water treatment plant became operational in 2008 and has the capacity to support the increased water supply needs from construction of the proposed project.

#### *Estimated Impacts to Water Resources*

Phase I construction of the waterline would involve clearing and trenching (open-cut method) that would result in temporary impacts to two freshwater wetlands totaling 0.0096 acres and temporary impacts to five freshwater streams totaling 20 linear feet. Eight additional streams and four additional wetlands will



be avoided in Phase I by utilizing HDD or jack-and-bore methods. Phase II construction of the waterline would involve clearing and trenching that would result in temporary impacts to two freshwater streams totaling 8 linear feet. Four additional stream crossings and two additional wetlands will be avoided in Phase II using HDD or jack-and-bore methods.

In total, the estimated impacts includes those to seven freshwater streams and two freshwater wetlands of 0.0096 acres and 28 linear feet, respectively (See attachment *Calhoun Reach - Wetland and Stream Drilling and Impact Estimates* for details on stream and wetland locations). Twelve additional streams and six wetlands will be avoided using HDD and jack-and-bore methods (Figure 2). All construction areas would be returned to grade once work is completed, and the areas would be maintained with herbaceous vegetation. All staging areas would be located in uplands.

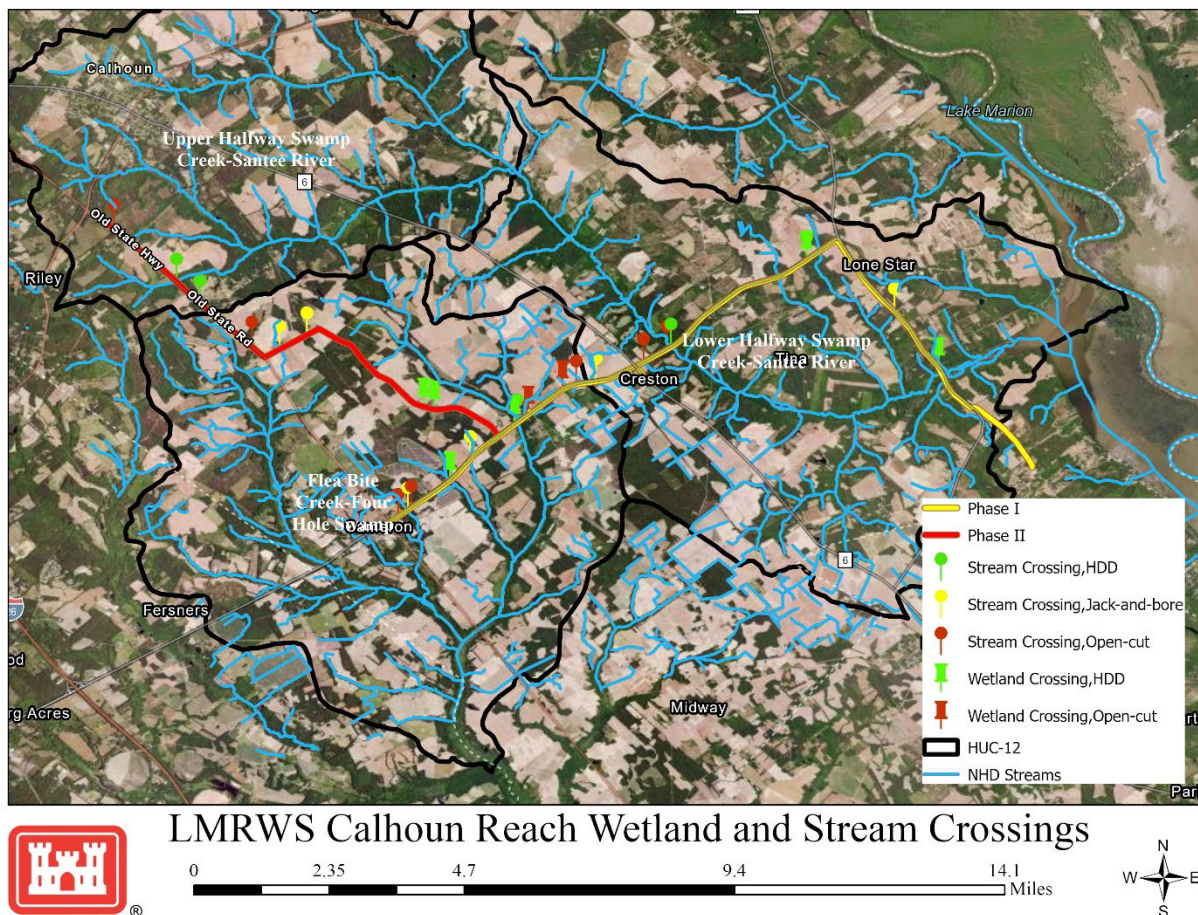


Figure 2. Streams and wetlands intersecting transmission mains

**From:** [Morgan D. Amedee](#)  
**To:** [Brown, Niko R CIV USARMY CESAC \(USA\)](#)  
**Cc:** [Shirey, Alan D CIV USARMY CESAC \(USA\)](#); [Parrish, Nancy A CIV USARMY CESAC \(USA\)](#)  
**Subject:** [Non-DoD Source] Re: NWP 58/401 WQC Pre-Filing Meeting Request for Calhoun Reach Transmission Mains Project (LMRWS)  
**Date:** Friday, June 14, 2024 9:42:26 AM  
**Attachments:** [image001.png](#)  
[Outlook-tst4wka3.png](#)

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Hi Niko,

SCDHEC has received your pre-application meeting request and has determined a pre-application meeting is not required for this project.

Regards,

**Morgan Amedee**

Project Manager

Water Quality Certification & Wetlands Section

**S.C Dept. of Health & Environmental Control**

Office: (803) 898-4179

Fax: (803) 898-7344

Connect [www.scdhec.gov](http://www.scdhec.gov) Facebook



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**From:** Brown, Niko R CIV USARMY CESAC (USA) <Niko.R.Brown@usace.army.mil>  
**Sent:** Thursday, June 13, 2024 3:29 PM  
**To:** Morgan D. Amedee <amedeemd@dhec.sc.gov>  
**Cc:** Shirey, Alan D CIV USARMY CESAC (USA) <Alan.D.Shirey@usace.army.mil>; Parrish, Nancy A CIV USARMY CESAC (USA) <Nancy.A.Parrish@usace.army.mil>  
**Subject:** NWP 58/401 WQC Pre-Filing Meeting Request for Calhoun Reach Transmission Mains Project (LMRWS)

\*\*\* Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*

Morgan,

Thank you very much for providing me with this information. Please see the attached letter and spreadsheet with all of the information which you listed below as pertains to the project of interest - Calhoun Reach Transmission Mains Project (LMRWS).

Please note that this is a Civil Works project (as opposed to a permit application in review by USACE Regulatory Division) and will not have a Corps Project ID associated with it.

Please let me know if you have any questions or are in need of anything else from me.

Niko Brown  
Biologist, Planning & Environmental Branch  
USACE – Charleston District

In-Office: T, W  
Office Phone: (843) 329-8145

Telework: M, R, F  
Cell Phone: (603) 258-8589

---

**From:** Morgan D. Amedee <amedeemd@dhec.sc.gov>

**Sent:** Thursday, June 13, 2024 2:17 PM

**To:** Brown, Niko R CIV USARMY CESAC (USA) <Niko.R.Brown@usace.army.mil>

**Cc:** Shirey, Alan D CIV USARMY CESAC (USA) <Alan.D.Shirey@usace.army.mil>

**Subject:** [Non-DoD Source] Re: NWP 58/401 WQC for US Army Corps Civil Works Projects

Hi Niko,

In the past, for civil works projects, we have processed these the same way we handle all other applications. To obtain a 401 Water Quality Certification, please submit a pre-filing meeting request with the following information:

- Project Name
- Project Location (coordinates)
- Waterbody
- Total Wetland Impacts Proposed (if applicable)
- Total Stream Impacts Proposed (if applicable) -This must be provided in linear feet
- Total Excavation Proposed (if Applicable)
- Applicant/Agent Contact Information

Once we receive your request and confirm that a meeting is not required, you can submit the application. In the application you provide drawings and the joint federal and state application. Please include the Corps project ID number in this submittal. You can email everything directly to me.

Please let me know if you have any additional questions.

Regards,

**Morgan Amedee**

Project Manager

Water Quality Certification & Wetlands Section

**S.C Dept. of Health & Environmental Control**

Office: (803) 898-4179

Fax: (803) 898-7344

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**From:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>

**Sent:** Thursday, June 13, 2024 1:16 PM

**To:** Annslee K. Smith <[SmithAK@dhec.sc.gov](mailto:SmithAK@dhec.sc.gov)>; Morgan D. Amedee <[amedeemd@dhec.sc.gov](mailto:amedeemd@dhec.sc.gov)>

**Cc:** Shirey, Alan D CIV USARMY CESAC (USA) <[Alan.D.Shirey@usace.army.mil](mailto:Alan.D.Shirey@usace.army.mil)>

**Subject:** RE: NWP 58/401 WQC for US Army Corps Civil Works Projects

\*\*\* Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*

Excellent. Thank you, Annslee!

Morgan – if there is any more information I can provide you with or some clarification for my question, just let me know!

Thank you,

Niko Brown

Biologist, Planning & Environmental Branch

USACE – Charleston District

In-Office: T, W

Office Phone: (843) 329-8145

Telework: M, R, F

Cell Phone: (603) 258-8589

---

**From:** Annslee K. Smith <[SmithAK@dhec.sc.gov](mailto:SmithAK@dhec.sc.gov)>

**Sent:** Thursday, June 13, 2024 12:32 PM

**To:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>

**Cc:** Charles W. Hightower <[HIGHTOCW@dhec.sc.gov](mailto:HIGHTOCW@dhec.sc.gov)>; Shirey, Alan D CIV USARMY CESAC (USA) <[Alan.D.Shirey@usace.army.mil](mailto:Alan.D.Shirey@usace.army.mil)>; Morgan D. Amedee <[amedeemd@dhec.sc.gov](mailto:amedeemd@dhec.sc.gov)>

**Subject:** [Non-DoD Source] Re: NWP 58/401 WQC for US Army Corps Civil Works Projects

Hi Niko,

I appreciate you reaching out! I may not be the best person to answer your questions as I do not typically work with NWP's unless the proposed projects don't fit the NWP and need a 401 Water Quality Certification. Morgan Amedee processes the nationwide projects for our section, so she would be the best person for you to speak to about this! I have copied her on this email.

Thank you,

**Annslee Smith**

Project Manager

Water Certification and Wetlands Section

**S.C. Dept. of Health & Environmental Control**

Office: (803) 898-4176

Connect: [www.scdhec.gov](http://www.scdhec.gov) [Facebook](#) [Twitter](#)

---

**From:** Brown, Niko R CIV USARMY CESAC (USA) <[Niko.R.Brown@usace.army.mil](mailto:Niko.R.Brown@usace.army.mil)>

**Sent:** Wednesday, June 12, 2024 4:13 PM

**To:** Annslee K. Smith <[SmithAK@dhec.sc.gov](mailto:SmithAK@dhec.sc.gov)>

**Cc:** Charles W. Hightower <[HIGHTOCW@dhec.sc.gov](mailto:HIGHTOCW@dhec.sc.gov)>; Shirey, Alan D CIV USARMY CESAC (USA) <[Alan.D.Shirey@usace.army.mil](mailto:Alan.D.Shirey@usace.army.mil)>

**Subject:** NWP 58/401 WQC for US Army Corps Civil Works Projects

\*\*\* Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*

Hi Annslee,

I wanted to reach out to you in part regarding a process-related question, but also with relation to a Civil Works project that would apply.

When it comes to nationwide permits, what is the preferred approach to getting concurrence from the BOW that a NWP applies to a US Army Corps Civil Works project? There is plenty of material out there that explains the process as they would apply to a traditional applicant, but I am not aware of anything as it would apply to Corp projects.

For instance, I have a water utility line project that meets all of the conditions outlined for NWP 58. Do I need to publish a joint public notice and submit a pre-application notice? I am trying to avoid redundancy and lost time if that makes sense.

I can submit to you more project details if that would help. Also, please feel free to give me a call at (603) 258-8589.

Thanks!

Niko Brown

Biologist, Planning & Environmental Branch

USACE – Charleston District



In-Office: T, W  
Office Phone: (843) 329-8145

Telework:M, R, F  
Cell Phone: (603) 258-8589

Joint Federal and State Application Form For Activities Affecting Waters of the United States Or Critical Areas of the State of South Carolina		This Space for Official Use Only	
Authorities: 33 USC 401, 33 USC 403, 33 USC 407, 33 USC 408, 33 USC 1341, 33 USC 1344, 33 USC 1413 and Section 48-39-10 et. Seq of the South Carolina Code of Laws. These laws require permits for activities in, or affecting, navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. The Corps of Engineers and the State of South Carolina have established a joint application process for activities requiring both Federal and State review or approval. Under this joint process, you may use this form, together with the required drawings and supporting information, to apply for both the Federal and/or State permit(s).		Application No. _____ Date Received _____ Project Manager _____ Watershed # _____	
Drawings and Supplemental Information Requirements: In addition to the information on this form, you must submit a set of drawings and, in some cases, additional information. A completed application form together with all required drawings and supplemental information is required before an application can be considered complete. See the attached instruction sheets for details regarding these requirements. You may attach additional sheets if necessary to provide complete information.			
1. Applicant Last Name:		11. Agent Last Name (agent is not required):	
2. Applicant First Name:		12. Agent First Name:	
3. Applicant Company Name:		13. Agent Company Name:	
4. Applicant Mailing Address:		14. Agent Mailing Address:	
5. Applicant City:		15. Agent City:	
6. Applicant State:	7. Applicant Zip:	16. Agent State:	17. Agent Zip:
8. Applicant Area Code and Phone No.:		18. Agent Area Code and Phone No.:	
9. Applicant Fax No.:		19. Agent Fax No.:	
10. Applicant E-mail:		20. Agent E-mail:	
21. Project Name:		22. Project Street Address:	
23. Project City:	24. Project County:	25. Project Zip Code:	26. Nearest Waterbody:
27. Tax Parcel ID:		28. Property Size (acres):	
29. Latitude:		30. Longitude:	
31. Directions to Project Site (Include Street Numbers, Street Names, and Landmarks and attach additional sheet if necessary):			
32. Description of the Overall Project and of Each Activity in or Affecting U.S. Waters or State Critical Areas (attach additional sheets if needed)			
33. Overall Project Purpose and the Basic Purpose of Each Activity In or Affecting U.S. Waters (attach additional sheets if needed):			
34. Type and quantity of Materials to Be Discharged		35. Type and Quantity of Impacts to U.S. Waters (including wetlands).	
Dirt or Topsoil: _____ <input type="checkbox"/> cubic yards		Filling: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Clean Sand: _____ <input type="checkbox"/> cubic yards		Backfill & Bedding: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Mud: _____ <input type="checkbox"/> cubic yards		Landclearing: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Clay: _____ <input type="checkbox"/> cubic yards		Dredging: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Gravel, Rock, or Stone: _____ <input type="checkbox"/> cubic yards		Flooding: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Concrete: _____ <input type="checkbox"/> cubic yards		Draining/Excavation: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Other (describe): _____ <input type="checkbox"/> cubic yards		Shading: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
TOTAL: _____ cubic yards		TOTALS: _____ acres _____ sq.ft. _____ cubic yards	

36. Individually list wetland impacts including mechanized clearing, fill, excavation, flooding, draining, shading, etc. and attach a site map with location of each impact (attach additional sheets if needed).

Impact No.	Wetland Type	Distance to Receiving Water body (LF)	Purpose of Impact (road crossing, impoundment, flooding, etc)	Impact Size (acres)
Total Wetland Impacts (acres)				

37. Individually list all seasonal and perennial stream impacts and attach a site map with location of each impact (attach additional sheets )

Impact No.	Seasonal or Perennial Flow	Average Stream Width (LF)	Impact Type (road crossing, impoundment, flooding, etc)	Impact Length (LF)
Total Stream Impacts (Linear Feet)				

38. Have you commenced work on the project site? ☐ YES ☐ NO If yes, describe all work that has occurred and provide dates.

39. Describe measures taken to avoid and minimize impacts to Waters of the United States:

40. Provide a brief description of the proposed mitigation plan to compensate for impacts to aquatic resources or provide justification as to why mitigation should not be required (Attach a copy of the proposed mitigation plan for review).

41. See the attached sheet to list the names and addresses of adjacent property owners.

42. List all Corps Permit Authorizations and other Federal , State, or Local Certifications, Approvals, Denials received for work described in this application.

43. Authorization of Agent. I hereby authorize the agent whose name is given on page one of this application to act in my behalf in the processing of this application and to furnish supplemental information in support of this application. <sup>1</sup>

\_\_\_\_\_  
Applicant's Signature

\_\_\_\_\_  
Date

44. Certification. Application is hereby made for a permit or permits to authorize the work and uses of the work as described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent for the applicant. <sup>1</sup>

\_\_\_\_\_  
Applicant's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Agent's Signature

\_\_\_\_\_  
Date

<sup>1</sup>The application must be signed by the person who desires to undertake the proposed activity or it may be signed by a duly authorized agent if the authorization statement in blocks 11 and 43 have been completed and signed. 18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

NOTE: A depiction of the adjacent properties with identifying corresponding property owner names must accompany this mailing list.  
(Attach additional sheets if necessary)

Project Name: \_\_\_\_\_

[illegible]



June 27, 2024

Ms. Nancy Parrish  
US Army Corp of Engineers  
69A Hagood Avenue  
Charleston, South Carolins 29403  
nancy.a.parrish@usace.army.mil

Re: 401 Certification for Authorization Pursuant to Nationwide Permit 58 (Utility  
Line Activities for Water and Other Substances)

Applicant Permit ID No.: NWP 58-01-24

Applicant: US Army Corp of Engineers

County: Calhoun

Project: Calhoun Reach Transmission Mains

Dear Ms. Parrish:

On September 15, 2020, the U.S. Army Corps of Engineers (Corps) issued a proposed rule in the Federal Register (85 FR 57298) that announced the reissuance of all the existing NWP's and the proposal to issue five new NWP's. In response to the September 15th proposed rule, the South Carolina Department of Health and Environmental Control (Department) initiated actions to certify the proposed NWP's and on December 14, 2020, the Department issued a final certification in accordance with Section 401 of the Federal Clean Water Act (CWA), as amended, and a certification of consistency with the Coastal Zone Management Act (48-39-10 et.seq.).

On January 13, 2021, the Corps published a final rule in the Federal Register (86 FR 2744). In this notice, the Corps announced that it was reissuing only 12 of the existing NWP's and four new NWP's.

On March 8, 2021, the Corps' Charleston District issued their Final Regional Conditions for the 16 NWP's. In that notice, the Charleston District denied the Section 401 Water Quality Certification (401 Certification) for NWP 12, 29, 39, 44, 57 and 58 as well as the Coastal Zone Consistency (CZC) for NWP's 12, 29, 39, 42, 44, 51, 57 and 58. Subsequently, on February 7, 2022 the Corps' Charleston District denied the WQC's for NWP 14, 23, and 46. As a result, the Department is proposing to revise the



Individual State Certification for the NWP's that were denied by the Corps Regional conditions to include NWP 14, 23, and 46.

On September 16, 2022, a General State Certification to authorize activities in accordance with S.C. Code Ann. §§ 48-1-10 et seq. and S.C. Code Ann. Regulation 61-101, and S.C. Code Ann. § 48-39-10 et seq. and the S.C. Coastal Zone Management Program document was issued by the South Carolina Department of Health and Environmental Control (DHEC or the Department) for the Nationwide Permits (NWP's) 12, 14, 23, 29, 39, 44, 46, 57, and 58.

The Department has reviewed the above-reference project in accordance with the September 16, 2022 general certification and, provided the applicant adheres to the certification conditions outlined in the attached document, the Department has determined that there is a reasonable assurance that the work authorized will be conducted in a manner consistent with the certification requirements of Section 401 of the Clean Water Act.

If any questions arise please contact me at (803) 898-4179 or amedeemd@dhec.sc.gov.

Sincerely,

A handwritten signature in cursive script that reads "Morgan Amedee".

Morgan D. Amedee  
Water Quality Certification and Wetlands Section

cc: USACE

**Nationwide Permit Number 58: Utility Line Activities of Water and Other Substances**

**Proposed Conditions for the 401 Water Quality Certification:**

1. This NWP is not certified for pipelines with more than 10 aquatic site crossings (not including directionally bored crossings).
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters or, SCDNR designated State Scenic Rivers.
3. This NWP is not certified or activities that cause the loss of more than 300 linear feet of stream bed.



**General State Certification No.:** SC NWP General State Cert 2021(REVISED)  
**Effective Date:** September 16, 2022  
**Expiration Date:** September 16, 2027

**STATE OF SOUTH CAROLINA  
GENERAL STATE CERTIFICATION**

A General State Certification to authorize activities in accordance with S.C. Code Ann. §§ 48-1-10 et seq. and S.C. Code Ann. Regulation 61-101, and S.C. Code Ann. § 48-39-10 et seq. and the S.C. Coastal Zone Management Program document is hereby issued by the South Carolina Department of Health and Environmental Control (DHEC or the Department) for the Nationwide Permits (NWPs) listed below and in accordance with the General and Special conditions listed in Sections II and III below:

Nationwide Permit Finalized by the US Army Corps of Engineers	Applicable State Certification
12. Oil or Natural Gas Pipeline Activities	401 Water Quality and Coastal Zone Consistency Certification
14. Linear Transportation Projects	401 Water Quality and Coastal Zone Consistency Certification
23. Approved Categorical Exclusions	401 Water Quality and Coastal Zone Consistency Certification
29. Residential Developments	401 Water Quality and Coastal Zone Consistency Certification
39. Commercial and Institutional Developments	401 Water Quality and Coastal Zone Consistency Certification
42. Recreational Facilities	Coastal Zone Consistency Certification only
44. Mining Activities	401 Water Quality Certification only
46. Discharge in Ditches	401 Water Quality and Coastal Zone Consistency Certification
51. Land-Based Renewable Energy Generation Facilities	Coastal Zone Consistency Certification only
57. Electric Utility Line and Telecommunications Activities	401 Water Quality and Coastal Zone Consistency Certification
58. Utility Line Activities for Water and Other Substances	401 Water Quality and Coastal Zone Consistency Certification

## **I. Background:**

On September 15, 2020, the U.S. Army Corps of Engineers (Corps) issued a proposed rule in the *Federal Register* (85 FR 57298) that announced the reissuance of all the existing NWP and the proposal to issue five new NWPs. In response to the September 15<sup>th</sup> proposed rule, the Department initiated actions to certify the proposed NWPs and on December 14, 2020, the Department issued a final certification in accordance with Section 401 of the Federal Clean Water Act (CWA), as amended, and a certification of consistency with the Coastal Zone Management Act (48-39-10 *et seq.*).

On January 13, 2021, the Corps published a final rule in the *Federal Register* (86 FR 2744). In this notice, the Corps announced that it was reissuing only 12 of the existing NWPs and four new NWPs.

On March 8, 2021, the Corps' Charleston District issued their Final Regional Conditions for the 16 NWPs. In that notice, the Charleston District denied the Section 401 Water Quality Certification (401 Certification) for NWP 12, 29, 39, 44, 57 and 58 as well as the Coastal Zone Consistency (CZC) for NWPs 12, 29, 39, 42, 44, 51, 57 and 58. Subsequently, on February 7, 2022 the Corps' Charleston District issued their Final Regional Conditions for the remaining 41 NWPs. In that notice, the Charleston District denied the WQCs for NWP 14, 23, and 46. As a result, the Department is proposing to revise the Individual State Certification for the NWPs that were denied by the Corps' Regional Conditions to include NWP 14, 23, and 46.

The purpose of this revised General State Certification is to additionally authorize, in accordance with the conditions below, the 401 and CZC Certifications that were denied by the Corps' Final Regional Conditions to include NWP 14, 23, and 46.

## **II. General Conditions**

- a. All applicants requesting coverage under this General State Certification must provide documentation that a Pre-Filing Meeting Request was submitted to DHEC at least 30 days prior to submitting a certification request. (See <https://scdhec.gov/new-401-certification-pre-filing-certification-requests-instructions> for details.)
- b. Activities in the Critical Areas (as defined in 48-39-10, R 30.1(D) and R 30.10) require a direct permit from SCDHEC OCRM. SCDHEC OCRM's action on direct critical area permits will serve as the consistency determination for the critical area activity.
- c. Impacts for discharges to streams must be provided in linear feet.
- d. If a state endangered species is found during project activities, the permittee must notify the South Carolina Department of Natural Resources (SCDNR). Take of state protected species listed under S.C. Code of Laws §50-15-30 is prohibited.
- e. The SCDNR recommends and prefers the use of native vegetation appropriate for the ecoregion and habitat type. The SCDNR recommends that immediate action be taken to replant the appropriate mix of native woody plants, native warm season grasses and/or other native forbs. Plantings should consist



of appropriate native species for the ecoregion and should exclude plant species found on the exotic pest plant council list: [https://www.se-eppc.org/southcarolina/SCEPPC\\_LIST2014finalOct.pdf](https://www.se-eppc.org/southcarolina/SCEPPC_LIST2014finalOct.pdf).

### **III. Specific Conditions**

In addition to the General Conditions noted above, all activities must comply with the Special Conditions outlined below specific to the NWP for which authorization is requested.

#### **a. Nationwide Permit 12 - Oil or Natural Gas Pipeline**

##### **Conditions of the 401 Water Quality Certification:**

1. This NWP is not certified for pipelines with more than 10 aquatic site crossings (not including directionally bored crossings).
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.
3. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

##### **Conditions of the Coastal Zone Consistency Certification:**

1. Impacts to aquatic sites associated with the construction of temporary, permanent and maintenance easements must be limited to a total width of 50' (including filling, excavation and clearing) except where required for safety reasons.

#### **b. Nationwide 14 - Linear Transportation Projects**

##### **Conditions of the 401 Water Quality Certification:**

1. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.
2. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

##### **Conditions for the Coastal Zone Consistency Certification:**

1. For all projects, the applicant must provide a Wetland Master Plan consistent with the policies and procedures of Chapter III Policy Section XII E. of the S.C. Coastal Zone Management Program. **WMP policies also include the preservation of all wetlands not proposed to be impacted through approved restrictive covenants.** The plan must include an identification of all wetlands, all wetland impacts/activities, drainage patterns, conceptual development, and a mitigation plan.

#### **c. Nationwide 23 - Approved Categorical Exclusions**

##### **Conditions for the 401 Water Quality Certification:**

1. This NWP is not certified for activities if the discharge will cause the loss of greater than 0.25 acres of Waters of the United States or more than 300 linear feet of stream impacts.



2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.

**Conditions of the Coastal Zone Consistency Certification:**

1. If the project meets the above 401 Water Quality Certification conditions, then it is also consistent with the policies of the CZMP.

**d. Nationwide Permit 29 – Residential Developments**

**Conditions for the 401 Water Quality Certification:**

1. The impounding of water and creating of lakes or ponds is not authorized.
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.
3. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

**Conditions for the Coastal Zone Consistency Certification:**

1. For all projects, the applicant must provide a Wetland Master Plan (WMP) consistent with the policies and procedures of Chapter III Policy Section XII E. of the S.C. Coastal Zone Management Program. **WMP policies also include the preservation of all wetlands not proposed to be impacted through approved restrictive covenants.** The plan must include an identification of all wetlands, all wetland impacts/activities, drainage patterns, conceptual development, and a mitigation plan.

**e. Nationwide Permit 39 – Commercial and Institutional Developments**

**Conditions for the 401 Water Quality Certification:**

1. The impounding of water and creating of lakes or ponds is not authorized by this NWP.
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.
3. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

**Conditions for the Coastal Zone Consistency Certification:**

1. For all projects, the applicant must provide a Wetland Master Plan consistent with the policies and procedures of Chapter III Policy Section XII E. of the S.C. Coastal Zone Management Program. **WMP policies also include the preservation of all wetlands not proposed to be impacted through approved restrictive covenants.** The plan must include an identification of all wetlands, all wetland impacts/activities, drainage patterns, conceptual development, and a mitigation plan.

**f. Nationwide Permit 42 – Recreational Facilities**

**Conditions of the Coastal Zone Consistency Certification:**

1. The use of this NWP must be limited to nature trails/horse trails, bike paths, small bridges or

walkways. These activities must be a maximum of 8' wide and involve hand clearing only (Golf courses, ski areas, buildings and campgrounds are not approved).

2. For all projects, the applicant must provide a Wetland Master Plan consistent with the policies and procedures of Chapter III Policy Section XII E. of the S.C. Coastal Zone Management Program. **WMP policies also include the preservation of all wetlands not proposed to be impacted through approved restrictive covenants.** The plan must include an identification of all wetlands, all wetland impacts/activities, drainage patterns, conceptual development, and a mitigation plan.

**g. Nationwide Permit 44 – Mining Activities**

**Conditions for the 401 Water Quality Certification:**

1. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.

**h. Nationwide 46 - Discharge in Ditches**

**Conditions for the 401 Water Quality Certification:**

1. This NWP is not certified for discharges causing the loss of greater than a half-acre of waters of the United States.
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.

**Conditions for the Coastal Zone Consistency Certification:**

1. If the project meets the above 401 Water Quality Certification conditions, then it is also consistent with the policies of the CZMP.

**i. Nationwide Permit 51 – Land-Based Renewable Energy Generation Facilities**

**Conditions of the Coastal Zone Consistency Certification:**

1. For all projects, the applicant must provide a Wetland Master Plan consistent with the policies and procedures of Chapter III Policy Section XII E. of the S.C. Coastal Zone Management Program. **WMP policies also include the preservation of all wetlands not proposed to be impacted through approved restrictive covenants.** The plan must include an identification of all wetlands, all wetland impacts/activities, drainage patterns, conceptual development, and a mitigation plan.
2. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

**j. Nationwide Permit 57 – Electric Utility Line and Telecommunications Activities**

**Conditions of the 401 Water Quality Certification:**

1. This NWP is not certified for utility lines with more than 10 aquatic site crossings (not including directionally bored crossings).



2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.
3. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

**Conditions of the Coastal Zone Consistency Certification:**

1. Impacts to aquatic sites associated with the construction of temporary, permanent and maintenance easements must be limited to a total width of 50' (including filling, excavation and clearing) except where required for safety reasons.

**k. Nationwide Permit 58 – Utility Line Activities for Water and Other Substances**

**Conditions of the 401 Water Quality Certification:**

1. This NWP is not certified for utility lines with more than 10 aquatic site crossings (not including directionally bored crossings).
2. This NWP is not certified for activities located in or adjacent to (as determined by SCDHEC) waters defined (as per Regulation 61-68) as Outstanding National Resource Waters (ONRW), Outstanding Resource Waters (ORW), Trout Waters, or SCDNR designated State Scenic Rivers.
3. This NWP is not certified for activities that cause the loss of more than 300 linear feet of stream bed.

**Conditions of the Coastal Zone Consistency Certification:**

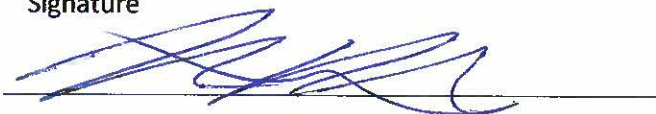
1. Impacts to aquatic sites associated with the construction of temporary, permanent and maintenance easements must be limited to a total width of 50' (including filling, excavation and clearing) except where required for safety reasons.

**IV. Authority**

This General State Certification shall become effective on the date signed by DHEC.

By Authority of the South Carolina Department of Health and Environmental Control

Signature



Date

9/16/2022

Title

Director Water Quality

**Calhoun Reach Transmission Mains  
Calhoun County, South Carolina**

**Environmental Assessment: Appendix D  
Additional Coordination and Comments on Draft EA/FONSI**

Prepared by:

United States Army Corps of Engineers

Charleston District



November 2024



June 12, 2024

USACE – Charleston District  
69A Hagood Ave  
Charleston, SC 29403

Attention: Niko Brown – Biologist, Planning and Environmental Branch

Subject: Calhoun Reach Project – Calhoun County, SC

I have reviewed the information provided in your correspondence dated June 10, 2024, concerning the proposed *Lake Marion Regional Water System (LMRWS) Phase I and Phase II* located in Elloree, Calhoun County, South Carolina. This review is part of the National Environmental Policy Act (NEPA) evaluation for the U.S Army Corps of Engineers (USACE). I have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The installation, repair, or upgrade of water lines and appurtenances are not considered a permanent conversion of farmland. This location of the water lines will be installed in entirely existing Dept of Transportation (DOT) rights-of-way. For the Phase II part, the master meter station and booster pump will occur on 0.3 acres and is exempt. Therefore, the two phases of the proposed project are exempt from provisions of FPPA and no further consideration for protection is necessary. We urge the use of accepted erosion control methods during construction and to place topsoil back as the surface layer when backfilling trenches.

For future reference, NRCS policy and procedures on prime and unique farmlands are published in the Code of Federal Regulations 7CFR657. The website is: [https://www.ecfr.gov/cgi-bin/text-idx?SID=a5afcfa7f6185ee7c835d365b1d478c&mc=true&tpl=/ecfrbrowse/Title07/7tab\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?SID=a5afcfa7f6185ee7c835d365b1d478c&mc=true&tpl=/ecfrbrowse/Title07/7tab_02.tpl). Detailed information can be found in Section 657.5 on this website.

If you have further questions, please contact me at 803.253.3896 or by email at [kristine.ryan@usda.gov](mailto:kristine.ryan@usda.gov).

Sincerely,

Kristine Ryan  
State Soil Scientist

Natural Resources Conservation Service  
1835 Assembly Street, Room 950  
Columbia, South Carolina 29201  
(803) 253-3935  
**Helping People Help the Land**  
*An Equal Opportunity Provider and Employer*





**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT**  
**69A HAGOOD AVENUE**  
**CHARLESTON SC 29403**

July 22, 2024

Dear Stakeholders:

The U.S. Army Corps of Engineers (USACE), working in cooperation with the Lake Marion Regional Water Agency, the South Carolina Public Service Authority (Santee Cooper), and Calhoun County, is proposing to construct an extension to an existing potable water transmission main near the Town of Elloree, SC. This project would be constructed in two phases with the first extending the water transmission main to the north and west approximately 70,522 feet (13.4 miles) to the town of Cameron, as well as about 988 feet (0.2 miles) off Old Number Six Hwy to the Calhoun County EMS Station. The second phase would extend from Cameron Rd northwest about 41,225 feet (7.8 miles) to the Town of St. Matthews near Wertz Crossroad. USACE's work on this project is being conducted under authority of the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), which authorized USACE to provide assistance to non-federal interests for water and wastewater related environmental infrastructure projects.

In accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, USACE has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the proposed project. Our preliminary findings are that the proposed action does not have a significant adverse effect on human health and welfare or the environment and, therefore, preparation of a supplemental Environmental Impact Statement is not warranted.

A copy of the Draft FONSI is included for your review and comment. The Draft EA is available online for your review and comment at: <http://www.sac.usace.army.mil/Missions/Civil-Works/NEPA-Documents/>.

Please direct any questions or comments to Niko Brown at (603) 258-8589 or by email at [niko.r.brown@usace.army.mil](mailto:niko.r.brown@usace.army.mil) by August 21, 2024.

Sincerely,

Nancy Parrish  
Chief, Planning and Environmental Branch

## **Brown, Niko R CIV USARMY CESAC (USA)**

---

**From:** Singh-White, Alya <Singh-White.Alya@epa.gov>  
**Sent:** Tuesday, August 20, 2024 3:19 PM  
**To:** Brown, Niko R CIV USARMY CESAC (USA)  
**Cc:** Dean, Kenneth; Buskey, Traci P.  
**Subject:** [Non-DoD Source] EPA Comments on the Calhoun Reach Transmission Mains Draft Environmental Assessment and Draft Finding of No Significant Impact

Mr. Niko Brown  
U.S. Army Corps of Engineers  
Charleston District  
69A Hagood Avenue  
Charleston, South Carolina 29403-5107

Re: EPA Comments on the Calhoun Reach Transmission Mains Draft Environmental Assessment in Calhoun County, South Carolina, and Draft Finding of No Significant Impact

Dear Mr. Brown,

The U. S. Environmental Protection Agency reviewed the Calhoun Reach Transmission Mains Draft Environmental Assessment and Draft Finding of No Significant Impact in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act. The U.S Army Corps of Engineers, Charleston District proposes to construct an extension to an existing potable water transmission main near the Town of Ellore, SC (referred to as the Cameron Reach) and extend this line to the Towns of Cameron and St. Matthews, SC (referred to as the Calhoun Reach). The Calhoun Reach has been proposed as part of phase three construction of the Lake Marion Regional Water System. The purpose of the proposed project is to provide safe, clean drinking water to rural areas in Calhoun County.

The draft EA examines the “No Action” Alternative and the Proposed Alternative. Under the Proposed Alternative, expansion of the LMRWS into municipalities of Calhoun County would occur in two phases. Phase I would begin with the installation of a 12”-diameter potable water transmission main at the water tank serving Ellore, SC and extending the water transmission main to the north and west approximately 13.4 miles to Cameron, and 0.2 miles off Old Number Six Highway to the Calhoun County EMS Station. Phase II would extend from Cameron Rd northwest for 7.8 miles to St. Matthews near Wertz Crossroad.

Based on our review of the draft EA the following comments are provided for your consideration.

- 1) **Air Quality:** The draft EA identified minor impacts to air quality due to temporary increases in exhaust and dust emissions from equipment operations during project construction.

Recommendation: The EPA recommends the use of diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, and other project activities. The EPA further recommends the USACE implement strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits. The EPA suggests the USACE consider the use of

clean diesel through add-on control technologies such as diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

- 2) **Wetlands and Streams**: According to Section 4.9 of the draft EA, the project is estimated to *“impact seven freshwater streams and two freshwater wetlands comprised of 0.0096 acres and 28 linear feet, respectively. Twelve additional streams and six wetlands will be avoided using horizontal directional drilling or jack and bore methods.”*

The EPA acknowledges that the USACE has determined that impacts to <0.01 acre of freshwater wetlands and 28 linear feet of streams due to project construction are eligible for authorization under the terms and conditions of Nationwide Permit Number 58, which authorizes work in waters of the US required for the construction, maintenance, repair and removal of utility lines and associated facilities. Additionally, the USACE consulted with the South Carolina Department of Health and Environmental Control, Bureau of Water to obtain a Clean Water Act 401 Water Quality Certification for the proposed project, which was granted by SCDHEC on June 27, 2024, citing the projects applicability to general certification under NWP 58.

The EPA appreciates the opportunity to review and provide comments on the Calhoun Reach Transmission Mains draft EA/FONSI. Upon completion of the final EA/FONSI, please submit an electronic copy to the EPA for review. If you have any questions regarding the EPA’s comments, please contact me by phone at 404-562-9339 or via email at [Singh-White.Alya@epa.gov](mailto:Singh-White.Alya@epa.gov).

Sincerely,

**Alya Singh-White**

Biologist | NEPA Section

U.S. EPA, Region 4

61 Forsyth St SW

Atlanta, GA 30303

(404)-562-9339 | [singh-white.alya@epa.gov](mailto:singh-white.alya@epa.gov)



State of South Carolina  
**Department of Natural Resources**

P.O. Box 167  
Columbia, S.C. 29202  
803-734-4199

**Robert H. Boyles, Jr.**, *Director*  
**Lorianne Riggins**, *Director, Office of Environmental Programs*

August 21, 2024

Niko Brown  
U.S. Army Corps of Engineers  
Charleston District  
69A Hagood Avenue  
Charleston, SC 29403

RE: Calhoun Reach Transmission Mains; Draft Environmental Assessment; Calhoun County.

Dear Mr. Brown,

The South Carolina Department of Natural Resources (SCDNR) is the state agency charged by state law with the management, protection, and enhancement of wildlife, fisheries, and marine resources in South Carolina. In addition to natural resource management responsibilities through research, management and licensing, the SCDNR is also charged with statewide responsibilities for regulating watercraft operation and associated recreation on state waters, conducting geological surveys and mapping, promoting soil and water conservation, flood mitigation, drought response planning and coordination, and the coordination of the state scenic rivers program. SCDNR's mission is to serve as the principal advocate for and steward of South Carolina's natural resources. (SCDNR authorities and responsibilities are described in Titles 48, 49 and 50, South Carolina Code of Laws (1976), as amended). As such, personnel with the SCDNR have reviewed the proposed project, evaluated its impact on natural resources and offer the comments included below.

**Project Description**

The proposed project would be constructed in two phases with the first phase extending the water transmission main to the north and west approximately 70,522 feet (13.4 miles) to the Town of Cameron, as well as about 988 feet (0.2 miles) off Old Number Six Highway to the Calhoun County EMS Station. The second phase would extend from Cameron Road northwest about 41,225 feet (7.8 miles) to the Town of St. Matthews near Wertz Crossroad. The proposed construction will consist of excavating a trench (about 4' in width) and placement of pipeline followed by a 3-ft backfill cover. Directional drilling or jack-and-bore will be used where appropriate (i.e. wetlands, sensitive areas, etc.). In total, the estimated impacts to seven freshwater streams and two freshwater wetlands comprise 28 linear feet and 0.0096 acres, respectively. Twelve additional streams and six wetlands will be avoided using horizontal directional drilling (HDD) and jack-and-bore methods. All construction areas would be returned to grade once work is completed, and the areas would be maintained with herbaceous vegetation. All staging areas would be located in uplands. The removal of trees will primarily be limited to narrow strips encroaching into existing SC Department of Transportation (SCDOT) right-of-way

and where necessary at the locations of the proposed booster pump station (expected to be about 100'x100') and master meter station (expected to be about 50'x50').

### **Agency Comments**

#### **Threatened and Endangered Species Review**

According to SCDNR data, there are several records of several conservation species, whether federally or state protected or considered species of conservation priority under the State's Wildlife Action Plan (SWAP) within the project area. 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 this species of concern where practicable. Please keep in mind that information regarding known occurrences of these species is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried by SCDNR biologists may contain other significant species or communities.

The Draft Environmental Assessment (EA) currently includes only federally protected species with the exception of SWAP species. However, under the National Environmental Policy Act (NEPA) (CFR 40 Part 1502.24) recognizes that other federal law such as the Fish and Wildlife Coordination Act should be considered as a part of the NEPA evaluation process. The Fish and Wildlife Coordination Act (FWCA) requires consultation with the fish and wildlife agencies of States where the "...waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified...by any public or private agency under Federal permit or license...". Consultation is to be undertaken for the purpose of "...preventing loss of and damage to wildlife resources." (16 U.S.C. 661 et seq.). While all the species that are state listed in Calhoun County are also federally listed, the SCDNR asks that acknowledgement be made to the state protection status for these species also as outlined below in Table 1 and that consideration also be given to impacts to any SWAP conservation priority species identified within the project area as noted in Table 2 of the Draft EA.

Table 1. Federally and State Protected Species known to occur in Calhoun County.

Scientific Name	Common Name	Federal Protection	State Protection	SWAP Priority
<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	LE: Federally Endangered	SE: State Endangered	Highest
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	LE: Federally Endangered	SE: State Endangered	Highest
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Bald & Golden Eagle Protection Act	ST: State Threatened	High
<i>Mycteria americana</i>	Wood Stork	LT: Federally Threatened	SE: State Endangered	Highest



Table 2. State Wildlife Action Plan Species known to occur in Calhoun County.

Scientific Name	Common Name	Federal Protection	State Protection	SWAP Priority	Taxon
<i>Atlanticoncha ochracea</i>	Tidewater Mucket	Not Applicable	Not Applicable	High	Freshwater Mussels
<i>Elliptio folliculata</i>	Pod Lance	Not Applicable	Not Applicable	High	Freshwater Mussels
<i>Elliptio roanokensis</i>	Roanoke Slabshell	Not Applicable	Not Applicable	High	Freshwater Mussels
<i>Lampsilis radiata</i>	Eastern Lampmussel	Not Applicable	Not Applicable	High	Freshwater Mussels
<i>Lampsilis splendida</i>	Rayed Pink Fatmucket	Not Applicable	Not Applicable	High	Freshwater Mussels
<i>Sagittunio nasutus</i>	Eastern Pondmussel	Not Applicable	Not Applicable	High	Freshwater Mussels
<i>Toxolasma pullus</i>	Savannah Lilliput	Not Applicable	Not Applicable	Highest	Freshwater Mussels
<i>Utterbackiana couperiana</i>	Barrel Floater	Not Applicable	Not Applicable	Highest	Freshwater Mussels
<i>Enneacanthus chaetodon</i>	Blackbanded Sunfish	Not Applicable	Not Applicable	High	Fishes
<i>Fundulus diaphanus</i>	Banded Killifish	Not Applicable	Not Applicable	Moderate	Fishes
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	LE: Federally Endangered	SE: State Endangered	Highest	Birds
<i>Mycteria americana</i>	Wood Stork	LT: Federally Threatened	SE: State Endangered	Highest	Birds
<i>Egretta thula</i>	Snowy Egret	MBTA: Migratory Bird Treaty Act	Not Applicable	Moderate	Birds
<i>Crotalus horridus</i> pop. 1	Timber Rattlesnake - Mountain Population	Not Applicable	Not Applicable	High	Reptiles

There are element occurrence records within the project area for the federally at-risk tricolored bat (*Peimyotis subflavus*), but note that although no element of occurrence records are known for the state endangered Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) and the federally at-risk hoary bat (*Lasiurus cinereus*) and little brown bat (*Myotis lucifugus*), these species are known to occur in adjacent counties. Please note that take of a state endangered species is prohibited under S.C. Code of Laws §50-15-30. If land-clearing activities are necessary 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.

#### *Tricolored bat*

According to SCDNR data, there are several records of the federally at-risk tricolored bat near the project crossing of Halfway Swamp Creek on Cameron Road. Tricolored bat were proposed for listing by the U.S. Fish and Wildlife Service on September 13, 2022<sup>[1]</sup>. This species utilizes caves, rock crevices, tree foliage and basal cavities, Spanish moss and man-made structures, such as houses, barns and culverts, as roosts during the summer months and they will use more than one roost location. Please consult with the USFWS regarding impacts to this species, as well as

<sup>[1]</sup>Please note that the U.S. Fish and Wildlife Service (USFWS) published a proposed rule to list the tricolored bat as endangered on September 14, 2022. The USFWS has 12 months from the posting of the rule before finalizing the rule. <https://www.federalregister.gov/documents/2022/09/14/2022-18852/endangered-and-threatened-wildlife-and-plants-endangered-species-status-for-tricolored-bat>

the potential for impacts and if consideration should be given for hoary and little brown bat species.

#### *Rafinesque's big-eared bat*

Suitable habitat for Rafinesque's big-eared bat is defined as swamp forests, hardwood or mixed mature bottomlands, maritime forests and black gum (*Nyssa aquatica*) and water tupelo (*Nyssa sylvatica*) stands (Cochran 1999, Hofmann et al. 1999, Lance et al. 2001, Gooding and Langford 2004, Trousdale and Beckett 2005). Should suitable habitat exists within the project area, the SCDNR recommends the following options for avoidance and minimization of impact to this state protected species.

#### *Option 1*

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 1<sup>st</sup> to July 31<sup>st</sup> 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.

#### *Option 2*

To further define areas of Rafinesque's big-eared bat habitat identified in option 1 and to reduce the number of areas being avoided during maternity season, surveys for maternity roosts may be conducted. Any maternity roost tree identified must then be buffered with a 1000-foot radius and an avoidance for tree clearing implemented May 1<sup>st</sup> to July 31<sup>st</sup>. Maternity roost trees are defined as trees standing 59 to 82 feet tall with large, hollow, cavities – 4 feet tall by 1 feet wide external width, with large basal cavities potentially being preferential (Mirowsky 1998, Gooding and Langford 2004, Trousdale and Beckett 2005, Carver and Ashley 2008, Bat Conservation International and Southeastern Bat Diversity Network 2013). All other tree clearing may occur in areas that are not wetlands or other aquatic resources in non-Rafinesque's big-eared bat maternity roosting habitat anytime.

#### Wetland and Stream Crossings

The Draft EA indicates that the proposed wetland and stream crossing methods will involve open-cut trenching, jack-and-bore and horizontal directional drilling. The proposed open cut trenching Stream 17 crossing is extremely close to a known location of tricolored bat. The SCDNR asks for consideration be given to lengthening the path for the HDD proposed for Stream 18 and 19 to also include HDD at Stream 17.

Wetland 7 and Stream 3 are aquatic resources that could be inhabited by or influence water quality for several SWAP species including: Flat Bullhead (*Ameiurus platycephalus*), American Eel (*Anguilla rostrata*), Pine Savannah Crayfish (*Cambarus reflexus*), Sawcheek Darter (*Etheostoma serrifer*), Ironcolor Shiner (*Notropis chalybaeus*), and Shaggy Crayfish (*Procambarus hirsutus*). Due to the potential for impacts to SWAP species, the SCDNR asks that alternative methods, such as HDD, dam and pump or flume methods, be considered at these

locations. The SCDNR prefers the use of HDD methods whenever possible, although we understand the limitations with costs and access for the use of this technology, and as an alternative prefer the Flume Crossing method to the dam and pump on open cut stream crossings, as many nongame fish species within these streams could easily be entrained or impinged due to their size. The flume method will essentially provide a stream flow by-pass during construction, minimizing impacts to aquatic resources.

Inadvertent releases occasionally occur during HDD, and thus, SCDNR recommends, to protect nearby aquatic resources and water quality, that the preventative measures outlined in a Horizontal Directional Drilling Contingency and Inadvertent Release Plan be implemented. These include:

- Erecting straw bales or sedimentation fences between the drill site and nearby sensitive resources to prevent drilling mud releases from reaching the resource.
- Conducting regular, on-site briefings for personnel to identify and locate sensitive resources at the site.
- Maintaining necessary response equipment either on-site or at a readily accessible location and in good working order.
- In addition, we recommend the HDD Contractor employ a Full Time, Qualified On-Site Mud Engineer to continuously monitor the drilling fluid circulation and returns as a preventative measure.

### Summary

The SCDNR finds that the project can be completed with minimal impacts to the environment and agree with the U.S. Army Corps of Engineers Finding of No Significant Impact. However, as the project continues to finalize project plans, please include consideration for state protected species, alternative methods of stream crossing for Stream 17, Wetland 7 and Stream 3 than what is currently proposed, inadvertent release contingency plans and the following best management practices in project plans.

- Pipeline construction must be accomplished in existing disturbance corridors where practicable. Upon completion, preconstruction contours must be restored along pipelines and all disturbed areas must be permanently stabilized with vegetative cover (preferable) and/or riprap, as appropriate. Right-of-ways should be no wider than that necessary for access and maintenance.
- All excavations should be backfilled with the excavated material after installation of the appropriate structures. Where practicable, sidecast spoil material from trench excavation should be placed on the side of the trench opposite streams and wetlands. Spoil material from trench excavation should be placed on the side of the trench to be reused as back fill with the A-horizon placed back in its original position. Excess spoil material must be removed to an approved upland disposal site.
- 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. Plantings should consist of appropriate native species for the ecoregion and should exclude plant species found on the exotic pest plant council list: [https://www.se-eppc.org/southcarolina/SCEPPC\\_LIST2014finalOct.pdf](https://www.se-eppc.org/southcarolina/SCEPPC_LIST2014finalOct.pdf).
- Right-of-ways through and adjacent to streams should be maintained in low growing,

woody vegetation to minimize stream bank erosion and sedimentation. Maintenance of this right-of-way should be conducted with mowing rather than with chemicals to reduce the potential for contamination and negative impacts on aquatic resources. If chemicals are used, a 50-foot buffer on either side of the stream crossing should be established where no herbicide treatments would be allowed. This will serve to retain the riparian vegetation while reducing the amount of chemical runoff into the aquatic environment.

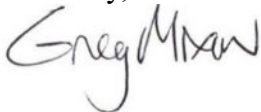
- Right-of-ways through and adjacent to forested wetlands should be maintained in low growing, native vegetation. Maintenance of this right-of-way should be conducted via hand clearing rather than with chemicals to reduce the potential for contamination and negative impacts on aquatic resources. If chemicals are used, a 50-foot buffer on either side of the wetland crossing should be established where no herbicide treatments would be allowed. This will serve to retain the riparian vegetation while reducing the amount of chemical runoff into the aquatic environment.
- Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (i.e. silt fences or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
- 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.

- 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 comply with any applicable floodplain, stormwater, land disturbance, or riparian buffer ordinances.

Thank you for the opportunity to review this Draft Environmental Assessment and provide comments. Should you have any questions or need more information, please do not hesitate to contact me by email at [mixon@dnr.sc.gov](mailto:mixon@dnr.sc.gov) or by phone at 803.734.3282.

Sincerely,



Greg Mixon  
Office of Environmental Programs

## References

- Bat Conservation International and Southeastern Bat Diversity Network. 2013. A conservation strategy for Rafinesque's Big-Eared Bat (*Corynorhinus rafinesquii*) and Southeastern Myotis (*Myotis austroriparius*). Bat Conservation International, Austin, TX.
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- Hofmann, J. E., J. E. Gardner, J. K. Krejca, and J. D. Garner. 1999. Summer records and a maternity roost of the southeastern myotis (*Myotis austroriparius*) in Illinois. Transactions of the Illinois State Academy of Science 92:95–107.
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