

ENVIRONMENTAL ASSESSMENT (EA)

Rebuild 69kV Lines 71, 72, and 73 Project

Transmission Construction Work Plan 2017 – 2022

Work Plan Project #17.0-09, #17.0-10, & #17.0-11

Prepared for

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Hattiesburg, Mississippi
Utilizing RD Instruction 1970-C as guidance.

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1.0 Purpose and Need

The following sections provide information related to the Purpose and Need for the Project.

1.1 Project Description

Cooperative Energy is seeking financing assistance from the U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) to reconstruct 69kV overhead electric transmission lines 71, 72, & 73.

This Environmental Assessment (EA) describes the alternatives evaluated, the affected environment, potential environmental consequences, cumulative effects, mitigation measures, and agency scoping for the Project.

The RUS's action is the decision to provide financing assistance for the project. Under the Rural Electrification Act (RE Act), as amended, the Secretary of Agriculture is authorized and empowered to make loans to nonprofit cooperatives and others for rural electrification "for the purpose of financing the construction and operation of generating plants, electric transmission and distribution lines, or systems for the furnishing and improving of electric service to persons in rural areas" (7 U.S. Code [USC] § 904). A primary function or mission of RUS is to carry out this electric loan program (7 USC § 6942).

Cooperative Energy, which is headquartered in Hattiesburg, Mississippi, is an electric generation and transmission cooperative organized for the purpose of providing power to 55 of the 82 counties in Mississippi. Cooperative Energy's objective is to furnish dependable, economical, wholesale electricity to rural areas of Mississippi by way of their 11 member-owned electric power cooperatives. Cooperative Energy accomplishes this mission by generating power, purchasing power from other generating facilities, and delivering power through a network of member-owned distribution lines to more than 427,000 homes and businesses throughout southern and western Mississippi.

An internal review of alternatives for ensuring these transmission systems will remain reliable and operational to meet the projected electric load growth and transmission needs has occurred. Those alternatives included no action, new right-of-way (ROW) and new transmission lines, increased maintenance, and rebuild existing infrastructure to meet current transmission design criteria. Cooperative Energy determined that rebuilding existing infrastructure was the preferred method for meeting distribution member demands and diminishing potential environmental impacts.

Cooperative Energy intends to finance the project under the RUS Electric Loan Program. As a result, the project represents a Federal action that must be reviewed under the National Environmental Policy Act (NEPA) of 1969. The responsible agency will be the RUS.

This EA has been prepared in compliance with RUS policies and Procedures, 7 Code of Federal Regulations (CFR) Part 1970 and the Council on Environmental Quality (CEQ) Regulations for implementation of NEPA 40 CFR Parts 1500-1508. As part of its broad environmental review process, RUS must also take into account the effect of the project on historic properties in accordance with Section 106 of the National Historic Preservation Act and its implementing regulation, "Protection of Historic Properties" (36 CFR Part 800). Pursuant to 36 CFR § 800.2(d)(3), the Agency is using its procedures for public involvement under NEPA to meet its responsibilities to solicit and consider the

views of the public during Section 106 review. Accordingly, comments submitted in response to the EA will inform Agency decision making in Section 106 review.

This EA contains NEPA related documents that have been provided to the following federal agencies: United States Fish and Wildlife Service, United States Army Corps of Engineers, and USDA Natural Resource Conservation Service. This EA is being prepared and submitted to only one federal agency: RUS. RUS should not require coordination with any other federal agencies in either a cooperating Agency status or Adoption of the EA status. There are no federal connected actions associated with this proposed project.

The proposed action will occupy a total of approximately three hundred fifty-nine (359) acres of land in George County, Mississippi. Approximately seven-tenths (0.68) acres of land will be converted directly. This direct conversion will be augured transmission support pole sites and guy-wire anchor placement. This project will be located within existing overhead electric transmission line ROW. The limits of disturbance for the proposed project are the current limits of the existing overhead electric transmission lines' existing ROW for Transmission Lines 71, 72, & 73 described below. There is no applicable address for the project area.

This project will reconstruct three existing 69kV overhead electric transmission lines by Cooperative Energy in George County. The transmission lines are overhead / aerial. None of the transmission lines to be reconstructed will be buried or underground. Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek) were identified in the Useful Life Study contained within the 2011 Long Range Transmission Study as near their end of useful life. The clearing of trees will not be necessary during construction. The ROW for these transmission lines was cleared and established decades ago. Some routine vegetation management may be necessary prior to beginning reconstruction of the project. The existing width of the ROW will remain at the current 100-foot width for each of the three transmission lines. The total linear length of the project will be approximately twenty-nine and one-half (29.45) miles long (155,496 linear feet). No land will be purchased for this project. No new or additional ROW easements will be procured for this project. No grading, paving, or fencing will be necessary for this project.

The rebuilding of the transmission lines will include Optical Ground Wire (OPGW), providing a fiber communication link to improve the reliability of the communications network. The OPGW will be placed in the secure topmost position of the transmission line. This means the activity of hanging the OPGW will be aerial in nature. The OPGW serves to shield conductor wires, all three phases, from lightning while providing a telecommunications path for internal as well as third party communications. The OPGW contains optical fibers which will be used for telecommunications purposes. All three transmission line rebuilds will include 161kV insulation. Construction at 161kV insulation provides system flexibility for future projects that could allow Cooperative Energy to assume transmission service for additional neighboring electric power company (Mississippi Power) area load. All three transmission line rebuilds will also utilize 795 Aluminum Conductor Steel Reinforced (ACSR) wire and modern steel and/or concrete poles and cross-arms.

Laydown yards may be necessary during project construction. Generally, the size may range from one to 3 acres. If laydown yards are needed, construction crews will utilize cleared areas, existing ROW, and/or other suitable lands. No additional clearing will take place to create a laydown area.

The holes for setting the bases of the transmission line support structures (poles) would be mechanically augured, and the poles will be placed using a digger/derrick truck and/or crane. The diameter of the augured holes ranges from one to four feet in width, and the holes are backfilled with a dense grade material. The depth of the augured holes will be approximately five (5) to twelve (12) feet. The depth is contingent upon the pole length, terrain, and distance (span) to the adjacent support structures. The earth taken from the holes would be disposed of in upland areas or spread around the structure avoiding placing fill in any wetland or floodplain areas. The electrical conductor would be strung using a pulley system along with a truck mounted conductor spool and tensioner.

Maintenance, once construction is complete, will consist of ground inspections conducted by an inspector walking/riding the site as needed. Drone(s) may be utilized for inspection purposes also. Vegetation will be controlled on site using acceptable and proven means (generally bush hogging and/or herbicide vegetation control).

The total estimated cost of the project activity is \$8,892,000.00. The estimated construction date for the project activity is August 25, 2021 or as soon as feasible.

The project will also be referred to as the Facilities (Facility) in this EA.

Project components and their locations are shown on the enclosed maps and locations are described below:

Cooperative Energy Line-071 Benndale 69kV Substation to Basin 69kV GOAB Switching Station

The existing transmission line begins in the South ½ of the North ½ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69kV gang operated air break (GOAB) Switching Station located in the Southwest ¼ of the Southwest ¼ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

Substation / Microwave = GPS coordinates of center

The existing Benndale 69kV Substation is located at approximately:

30°52'31.82"N

88°47'45.07"W

The existing Basin 69kV GOAB Switching Station is located at approximately:

30°46'45.33"N

88°38'53.37"W

Cooperative Energy Line-072, Basin 96 kV GOAB Switching Station to Agricola 69kV Switching Station

The existing transmission line begins in the Southwest ¼ of the Southwest ¼ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin 69kV GOAB Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately

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1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast ¼ of the Northeast ¼ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

Substation / Microwave = GPS coordinates of center

The existing Basin 69kV GOAB Switching Station is located at approximately:

30°46'45.32"N

88°38'53.37"W

The existing Agricola 69kV Switching Station is located at approximately:

30°49'12.38"N

88°31'2.58"W

Cooperative Energy Line-073, Rocky Creek 69kV Switching Station to Agricola 69kV Switching Station

The existing transmission line begins in the Northeast ¼ of the Southeast ¼ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast ¼ of the Northeast ¼ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

Substation / Microwave = GPS coordinates of center

The existing Rocky Creek 69kV Substation is located at approximately:

30°55'42.87"N

88°30'49.91"W

The existing Agricola 69kV Switching Station is located at approximately:

30°49'12.38"N

88°31'2.58"W

See [Appendix A](#) for maps of the proposed project.

1.2 Purpose and Need

USDA, Rural Development is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service. The agencies have in excess of 50 programs that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives.

The purpose of the project is to rebuild overhead electric transmission Lines 71, 72, 73. The existing Lines 71, 72, and 73 were originally constructed in the late 1960's and early 1970's. The overhead electric transmission line support structures used during the original construction were treated wood poles. These wood poles have reached the end of their useful life. This "end of useful life" status of transmission Lines 71, 72, & 73 has been determined by analysis of the transmission system by Cooperative Energy's team of Professional Engineers (electrical). The technical aspects and engineering justification for the need of the project have been approved by RUS's Office of Loan Origination and Approval's Engineering Branch. Because of transmission Lines 71, 72, & 73 current "end of useful life" status, the need for the project is to replace the wood transmission line support poles that have reached the end of their useful life with modern steel / concrete poles. The addition of the OPGW will modernize the ground wire with contemporary grounding and fiber optic communications technology. Construction at 161kV insulation provides system flexibility for future projects that could allow Cooperative Energy to assume transmission service for additional neighboring electric power company (Mississippi Power) area load.

The reconstruction of the project is needed to ensure future bulk electric power transmission reliability in the George County area. This future reliability is also needed to ensure our distribution member, Singing River Electric will be supplied with uninterrupted and reliable bulk electric power. Singing River Electric supplies distributed electric power to several critical entities such as hospitals, convalesce homes, federal installations, rehabilitation centers, dialysis center, blood donation facilities, etc. that rely on electric power to sustain and improve human life.

Cooperative Energy's goal with this proposed project is to provide affordable and reliable electric bulk power to its member cooperatives.

2.0 Alternative Evaluate Including the Proposed Action

The following sections provide information related to the alternatives evaluated for the project.

2.1 Proposed Action

The Proposed Action is the reconstruction of three existing 69kV transmission lines by Cooperative Energy in George County. These transmission lines include: Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek). The rebuilding of the transmission lines will include OPGW, providing a fiber communication link to improve the reliability of the communications network. The OPGW will be placed in the secure topmost position of the transmission line. This means the activity of hanging the OPGW will be aerial in nature. The OPGW serves to shield conductor wires,

all three phases, from lightning while providing a telecommunications path for internal as well as third party communications. The OPGW contains optical fibers which will be used for telecommunications purposes. All three transmission line rebuilds will include 161kV insulation. Construction at 161kV insulation provides system flexibility for future projects that could allow Cooperative Energy to assume transmission service for additional neighboring electric power company (Mississippi Power) area load. All three transmission line rebuilds will also utilize 795 ACSR wire and modern steel and/or concrete poles and cross-arms.

Project Components:

- 69kV Transmission Line 71 (Benndale – Basin)
- 69kV Transmission Line 72 (Basin – Agricola)
- 69kV Transmission Line 73 (Agricola – Rocky Creek)
- Transmission line support structures / poles (count TBD)
- 161kV 795 ACSR wire
- 161kV Insulation
- OPGW containing fiber optic communication link

The elementary nature and scope of the project, rebuilding existing transmission lines in existing ROW, reduces the potential quantity of relevant factors that contributed to the decision to choose the selected option of rebuilding the transmission lines. The proposed project is technically feasible and economically feasible. Cooperative Energy has vast experience with siting, design, construction, reconstruction, and maintenance of overhead electric transmission lines.

2.2 Other Alternatives Evaluated

Several alternatives were considered as a means of meeting the Purpose and Need for the project. Those alternatives included no action, new ROW and new transmission, increased maintenance, and rebuild existing infrastructure to meet current transmission design criteria. Cooperative Energy decided that rebuilding existing infrastructure was the preferred and most logical method for meeting distribution member demands. These are discussed in more detail in the following sections. Based on this study, the rebuild scenario described in Section 2.1 was selected for the project.

One alternative to the project would be to acquire new ROW and construct new transmission lines. Creating new ROW in new locations with new transmission line(s) components to meet the needs of the project is a method to provide each associated delivery point with bulk electric power. The creation of new ROW is an activity the Cooperative performs on a regular basis to meet the needs of the distribution members. Because of this, the Cooperative has the necessary resources available to acquire new ROW for transmission line corridors and construction. The creation of new ROW and new transmission lines would require the retirement and abandonment of existing Lines 71, 72, & 73. This would result in the creation of stranded assets. The creation of new ROW can impact the environment and surrounding areas more so than using an existing ROW. This is because the creation of new ROW would require the clearing of existing vegetation and possibly the relocation of other existing infrastructure and/or structures. The creation of new ROW and transmission lines could also create new impacts to important farmland, formally classified (FC) land, floodplains, the conversion of wetlands to a lesser quality wetland, cultural resources, biological resources, threatened & endangered species,

migratory bird species, create areas for possible invasive species to proliferate, effect storm water run off, or affect localized water quality. The use of existing transmission line ROW for the project would eliminate the above potential new impacts.

Another alternative to the project would be to increase maintenance of the existing Lines 71, 72, & 73 in their current state and design. Increasing the frequency of maintenance on the existing lines 71, 72, & 73 could extend the useful life of the system in theory. Increased maintenance would require increased heavy equipment mobilizations. Increased heavy equipment mobilizations would result in an increase in heavy equipment's internal combustion engine pollutant emissions. Increased mobilizations would also increase the potential of oil and hydraulic fluid leaks / spills. Increased mobilizations could cause system component standardization to diminish. The diminishment of system standardization could result in increased component inventory. The increase in component inventory would increase the duration and efficiency of planning and maintenance activities, increasing costs. This alternative could raise human safety risk exposure due to the documented inherent danger of Electric Lineman work. Increasing transmission line maintenance could result in the potential to extend the useful life of lines 71, 72, & 73 but ultimately would result in the need to reconstruct these lines, nevertheless.

2.3 No Action Alternative

Under the No Action Alternative, the proposed reconstruction of the transmission lines 71, 72, & 73 would not occur. This could result in system failure in the future. A system failure would abort the Cooperative's Mission Statement obligation and become a breach of contract to and with its distribution members. The Mission of Cooperative Energy is to deliver to its Members reliable and affordable energy in a safe and environmentally responsible manner. This is accomplished by focusing on the core fundamentals of power generation, power purchasing, power delivery and fuel risk mitigation while achieving the highest levels of safety, reliability, and economics.

3.0 Affected Environment and Environmental Consequences

Chapter 3 provides descriptions of the existing environmental conditions of the areas that may be impacted by constructing the project. This chapter provides an understanding of the affected environment and potential environmental consequences of the project for the following resources: aesthetics, air quality, biological resources, cultural resources, human health and safety, land use, noise, socioeconomics & Environmental Justice, soils, transportation, and water. Federal, state, and local regulations that apply to managing these resources are also discussed in context of the existing environment.

3.1 Land Use/Land Ownership

The land use and ownership in the project area and potential land use impacts as a result of the project are discussed in the following sections.

3.1.1 General Land Use

3.1.1.1 Affected Environment

The proposed action will occupy a total of approximately three hundred fifty-nine (359) acres of land in George County, Mississippi. Approximately seven-tenths (0.68) acres of land will be converted directly.

All land for use in the project has existing ROW easements in place. No new land will be purchased or leased for the project.

The land in the project area is currently occupied by overhead electric transmission lines and ROW, pine forest, unmanaged hardwood forest, agricultural pasture, agricultural row crop, rural residential, some commercial businesses, and electric distribution lines. The project is compatible with the general land use in the project area, because the land in the project area is currently transmission line ROW.

The project and the affected land will not influence local zoning. There are no existing zoning ordinances in George County, Mississippi, with the possible exception of the City of Lucedale. Because the project will not occur within the Lucedale City Limits, no zoning ordinances will have jurisdiction over the project.

During correspondence with the Southern Mississippi Planning and Development District (SMPDD), the Regional Clearinghouse received notification of the intent to apply for Federal assistance and had no comments as documented in their letter dated April 30, 2020. SMPDD is the local agency responsible for ensuring land developments follow the established land and development plans in the project area. Based on this, the project will have no impact on any land use plans and/or development plans. See Appendix B for this correspondence.

The project will traverse the following Ecoregions of the State of Mississippi in George County: Southeastern Plains sub-ecoregions of Southeastern Floodplains & Low Terraces and Southern Pine Plains and Hill; Southern Coastal Plains sub-ecoregion of Flood Plains and Low Terraces. These Ecoregions provide a mixture of cropland, pasture, woodland, and forest land cover. Longleaf pine was the predominant tree species historically, with smaller areas of oak-pine and southern mixed forest. Most of the longleaf pine has disappeared and been replaced by slash and loblolly pine, although there have been some attempts to restore the longleaf forest. Mature stands of timber in the project area are uncommon. Because the proposed project is the reconstruction of existing overhead electric transmission lines in existing ROW, the project will have no cumulative impacts to the existing affected environment. This is due to the current status of the environment in the project area having the same impacts today to the environment in the area as these impacts will have after the proposed project is implemented. Meaning, the general land use today in the project area has three overhead electric transmission lines in place. The proposed project will simply reconstruct those existing transmission lines in the existing ROW, thus no changes to the general land use will be felt by the land in the area.

Because the existing ROW for Lines 71, 72, & 73 will be repurposed for this project, no project alternatives would affect land in the area that is not already affected by the existing Lines 71, 72, & 73.

3.1.1.2 Environmental Consequences

The evaluation of potential impacts to the affected resource, general land use, from all alternatives under consideration, which are none, shows that the existing ROW for Lines 71, 72, & 73 will be repurposed for this project. No project alternatives, which are none, would affect land in the area that is not already affected by the existing Lines 71, 72, & 73.

The methods used to collect data/information for predicting impacts from the proposed project consisted of the evaluation of the existing environment in its current status, contrasted to the known potential impacts to the environment after evaluating the proposed project in its state of proposed

implementation. This evaluation determined that because the proposed project will not alter the affected resource addressed in this section from its current state, the status of environmental consequences to the affected resource will remain static once implemented. Due to this, the evaluation's conclusion is no impact would occur as a result of the proposed project. This conclusion has been substantiated during consultation with SMPDD. This project should have no direct, indirect, or cumulative effects on the resource addressed in this section.

The proposed project's environmental consequences were evaluated in the context that considered site-specific consequences. The proposed project's environmental consequences were evaluated for the potential duration of impacts. The duration of impacts should be short, if at all, only during construction. These construction activities will not have consequences on the land use. The proposed project should create no intense or severe impacts to the environment in the area.

Because the project will reconstruct overhead electric transmission lines that already exist on the land in the area, the project will not alter the land from its current general condition. The project should not create any environmental consequences related to general land use. No considerable additional impacts to land use are anticipated within the project's footprint. After construction is complete, disturbed areas would be stabilized as appropriate with revegetation. Due to this, significant impacts to land use inside and outside the project area are not anticipated. Therefore, there are no environmental consequences expected as a result of the project.

Impacts to land use include long-term impacts (minimal removal of existing vegetation) and short-term impacts associated with construction. Construction impacts would be minimized with best management practices (BMPs) to control and minimize erosion. After construction is complete, disturbed areas would be stabilized as appropriate and revegetated.

3.1.1.3 Mitigation

Additional mitigation measures will be implemented during project construction and operation to aid in minimizing potential environmental impacts. Potential mitigation measures include:

- Implementation of proper erosion control measures described by the BMP
- The development and maintenance of BMPs such as:
- Soil and sediment tracked off the project site and onto the surface of a public roadway, paved area, or sidewalk will be removed by sweeping and/or shoveling the roadway, paved area, or sidewalk surfaces, or by using other similarly effective means of sediment removal as practical
- Silt fence will be used to divert water around disturbed soils and construction materials on the project site as applicable
- Temporary structural BMPs must be removed after the project site is stabilized with a uniform perennial vegetative cover of 70 percent density or more for all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures, as applicable
- Periodic site visits to see that vegetation establishment is satisfactory will occur, however, if sufficient vegetative cover has not been achieved, then additional restoration measures will be implemented such as overseeding, mulching, sodding, or the use of erosion control blankets

- Provide and maintain a 50-foot buffer surrounding wetlands and other waters of the U.S. (WOTUS) or provide and maintain a natural buffer that is less than 50-feet and contains additional erosion and sediment controls.

3.1.2 Important Farmland

3.1.2.1 Affected Environment

Because this proposed project is a utility line construction, the Farmland Protection Policy Act (FPPA) does not apply to the project. The ROW for the existing and proposed reconstruction activity was purchased before August 4, 1984.^[1] And, for utility programs, due in part to applicant eligibility requirements and design policies, it is USDA policy that the requirement to complete the NRCS-CPA-106, *Farmland Conversion Impact Rating for Corridor Type Projects* form does not apply to electric transmission lines.

As a courtesy, the Cooperative provided the area NRCS a notice of this proposed project. The NRCS has not responded to our letter. Specifically, the District Conservationist was made aware of the proposed action via a letter from the Cooperative dated April 27, 2020 for comment. No comments have been received from the District Conservationist as of this document's publication. See Appendix C for correspondence. With this, it can be intimated that no areas of important farmland should be directly or indirectly affected by the proposal. Furthermore, because the project is proposed to take place within the existing previously cleared ROW, no Important Farmland if present, will be altered from its current state.

3.1.2.2 Environmental Consequences

The evaluation of potential impacts to the affected resource, Important Farmland, from all alternatives under consideration, which are none, shows that the existing ROW for Lines 71, 72, & 73 will be repurposed for this project. No project alternatives, which are none, would affect land in the area that is not already affected by the existing Lines 71, 72, & 73.

The methods used to collect data/information for predicting impacts from the proposed project consisted of the evaluation of the existing environment in its current status, contrasted to the known potential impacts to the environment after evaluating the proposed project in its state of proposed implementation. This evaluation determined that because the proposed project will not alter the affected resource addressed in this section from its current state, the status of environmental consequences to the affected resource will remain static once implemented. Due to this, the evaluation's conclusion is no impact would occur as a result of the proposed project. This conclusion has been substantiated during consultation with NRCS via their lack of response. This project should have no direct, indirect, or cumulative effects on the resource addressed in this section.

The proposed project's environmental consequences were evaluated in the context that considered site-specific consequences. The proposed project's environmental consequences were evaluated for the potential duration of impacts. The duration of impacts should be short, if at all, only during construction. These construction activities will not have consequences on the land use. The proposed project should create no intense or severe impacts to the environment in the area.

Because the project will reconstruct overhead electric transmission lines that already exist on the land in the area, the project will not alter the land from its current condition. The project should not create

any environmental consequences related to general land use. No considerable additional impacts to land use are anticipated within the project's footprint.

With the lack of response from the NRCS discussed above, it can be intimated that no areas of important farmland should be directly or indirectly affected by the proposal. Furthermore, because the project is proposed to take place within the existing previously cleared ROW, no Important Farmland if present, will be altered from its current state.

The soil / farmland at the project has previously been disturbed by the construction of the existing equipment and ROW associated with the project. Soil impacts may occur during the construction of the project components. These impacts would be short-term in nature and minimized with BMPs to control and minimize erosion. Therefore, there are no environmental consequences expected as a result of the project.

3.1.2.3 Mitigation

Construction impacts to soils / farmland would be minimized with BMPs to control and minimize erosion. After construction is complete, disturbed areas would be stabilized as appropriate and revegetated.

3.1.3 Formally Classified Lands

3.1.3.1 Affected Environment

The project has been evaluated to determine if any FC Lands could be impacted. The EPA's NEPAassist, National Wilderness – Wilderness Connect Website, National Rivers Inventory, and State Lands – USGS Protected Area Database of the U.S. website was used for this evaluation.^[2] The evaluation determined that the following FC lands will not be impacted: Coastal Barriers/National Seashores, National Forests, National Landmarks, National Parks, National Trails, Wild & Scenic Rivers, National Rivers Inventory, National Wildlife Refuges, and National Wilderness. The project will traverse eight thousand thirty and two-tenths (8,530.2) linear feet of the Pascagoula River State Wildlife Management Area (WMA). The existing ROW is one hundred (100) feet in width and will remain the same width for the project. The amount of land the existing transmission lines 71, 72, & 73 currently occupy in the Pascagoula River State WMA is 19.6 acres and will remain the same size for the project. The State of Mississippi's Department of Wildlife, Fisheries, and Parks manage the Pascagoula River State WMA. Because this project will take place in an existing ROW, established approximately fifty (50) years ago, these state entities and the FC Land they manage will not be impacted and/or altered from its current condition. Because of this there will be no changes to existing visual impacts and no direct or indirect effects to the resources that do not already exist. The Pascagoula River State WMA was notified of the proposed action for review and comments in a letter dated August 26, 2021. This agency has not responded as of the publication of this EA. The National Parks Service was notified of the proposed action for review and comments with respect to the Pascagoula River's inclusion in the National Rivers Inventory in a letter dated January 3, 2022. This agency has not responded as of the publication of this EA. The State Forest Management Service was notified of the proposed action for review because a portion of the project is adjacent to State Forest Management Lands in a letter dated January 3, 2022. This agency has not responded as of the publication of this EA. See [Appendix B](#) for correspondence and maps of the project area from resources listed above.

The land in the project area is currently occupied by overhead electric transmission lines and ROW, pine forest, unmanaged hardwood forest, agricultural pasture, agricultural row crop, rural residential, some commercial businesses, and electric distribution lines. The project will traverse eight thousand thirty and two-tenths (8,530.2) linear feet of the Pascagoula River State WMA. The existing environment in the FC will not be affected or altered by the project because the project activity is the reconstruction of an existing infrastructure overhead electric transmission line. This activity will result in the affected environment remaining in its current condition, state, and visual impacts status.

3.1.3.2 Environmental Consequences

Because the project will reconstruct overhead electric transmission lines that already exist on the land in the area, the project will not alter the land from its current general condition. Specifically, this project will take place in an existing ROW, established approximately 50-years ago, the state entities and the FC Land they manage will not be impacted and/or altered from its current condition. Because of this, there will be no changes to existing visual impacts and no direct or indirect effects to the resources that do not already exist. See additional details concerning visual impacts and aesthetics in Section 3.12 of this document. The project should not create any environmental consequences related to FC land use. No considerable additional impacts to FC land are anticipated within the Project's footprint. After construction is complete, disturbed areas would be stabilized as appropriate with native revegetation. Due to this, significant impacts to FC inside and outside the project Area are not anticipated. Therefore, there are no environmental consequences expected because of the project.

3.1.3.3 Mitigation

Impacts to FC land include long-term impacts (minimal removal of existing vegetation) and short-term impacts associated with construction. Construction impacts would be minimized with BMPs to control and minimize erosion. After construction is complete, disturbed areas would be stabilized with native revegetation.

3.2 Floodplains

3.2.1 Affected Environment

Flood Insurance Rate Maps (FIRM) (Map Numbers 28039C0175E, 28039C0225E, 28039C0200E, and 28039C0100E) and Federal Emergency Management Agency (FEMA) data for George County, Mississippi indicate areas of floodplain within the project area, including Special Flood Hazard Area (SFHA) Zone A and AE.[3] Zones A and AE, also known as the 100-year floodplain, are located adjacent to the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek. No flood zones are indicated within the existing substations and switching stations. See Appendix E for FIRM maps.

The project will traverse a 500-year floodplain.

The existing transmission line and planned reconstructed transmission Lines 71, 72, 73 have and will have support structures within some of the floodplains depicted in the FIRM maps. The amount of floodplain the project would traverse is approximately 36,000 linear feet or 83 acres in Line 71 ROW; approximately 26,600 linear feet or 61 acres in Line 72 ROW; approximately 1,700 linear feet or 4 acres in Line 73 ROW. The total amount of floodplain the project would traverse is 64,300 linear feet or 148 acres in ROW.

The George County Floodplain Manager was consulted on August 26, 2021 (Appendix E) and a response was not received. No floodplain permits are required for the project.

3.2.2 Environmental Consequences

The reconstruction of transmission Lines 71, 72, & 73 will replace old wooden poles with new modern steel or concrete poles in the existing ROW. No poles will be placed in floodways by spanning these. The wooden poles will be removed from the ground level up, meaning the wooden pole bases will remain in place underground. This will be accomplished by sawing the pole at ground level. The base of the pole will remain in place and the fill of holes will not be necessary because no holes in the ground will be created. Direct impacts from the placement of new support structures would be augured holes in the ground in the middle of the ROW. Any spoils taken from the holes will be disposed of in upland areas avoiding placing fill or earth into floodplains. Due to this mitigation, direct impacts to floodplains would be avoided. Indirect impacts from the placement of new support structures and associated construction activities could be the temporary use of heavy equipment during construction. The use of heavy equipment during construction could impact floodplains by altering water flow during rain or flood events. Because the construction of the project will be scheduled to take place during the dry season, these impacts should be minimized. Due to the topography and landscape of the project area in George County, construction of this project will be planned for the dry season and implemented as such. The use of timber mats crossing floodplain areas will provide support for heavy equipment while crossing and/or conducting the replacement activity within the floodplain. Should mats remain in place, it will be considered a permanent fill within a floodplain, which is not authorized. Because of this, Cooperative Energy and its contractors will remove all matting once construction has been completed in each area of use.

3.2.3 Mitigation

No poles will be placed within the floodway. Should placement of poles occur within the floodplain, the earth taken from the holes should be disposed of in upland areas or spread around the structure avoiding placing fill in any floodplain area. Best management practices should be utilized to ensure sediment and erosion are controlled and minimized. For heavy equipment crossing floodplain areas, timber mats should be used. The timber mats should not remain in place as it will be considered a permanent fill within a floodplain, which is not authorized. The wooden poles will be removed from the ground level up, meaning the wooden poles bases will remain in place underground. This will be accomplished by sawing the pole at ground level. The base of the pole will remain in place and the fill of holes will not be necessary because no holes in the ground will be created.

3.3 Wetlands

The project will be the reconstruction of overhead electric transmission Lines 71, 72, & 73 in the area that contains the Pascagoula River Watershed. The Pascagoula River Watershed is Mississippi's second largest basin draining an area of about 9,600 square miles before emptying into the Gulf of Mexico. Major streams include the Pascagoula, Leaf, and Chickasawhay Rivers, as well as Black and Red Creeks. The Pascagoula River System is the last unregulated major river system in the lower 48 states. The project area occurs within this watershed, and therefore includes numerous waterways, as listed above and as listed here: Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Blue

Spring Branch, and Rocky Creek. Because of this and other localized geographical qualities, wetlands exist in the project area.

Cooperative Energy contacted the United States Army Corps of Engineers, Mobile District, Regulatory Division, South Mississippi Branch, Biloxi (Mississippi) Field Office about the proposed project. The Corps was contacted to obtain a Section 404 wetland jurisdictional determination. The United States Army Corps of Engineers, Mobile District, Regulatory Division, South Mississippi Branch, Biloxi (Mississippi) Field Office sent correspondence dated February 5, 2021. See Appendix F for consultation information. This email states that if timber mats are placed to provide support for heavy equipment while crossing wetland habitat and/or conducting the replacement activity, a temporary discharge of fill material would be considered to have occurred (even if the mats are removed after construction). Should the mats, if used, remain in place, a permanent discharge of fill material would occur, and mitigation may be required. In accordance with NWP, General Condition 32, the proposed project is considered verified by default because the Corps failed to respond within 45-days of receipt of the complete pre-construction notification. The email goes on to state that it is incumbent upon the permittee to ensure they adhere to all conditions/restrictions of NWP 12, and the Nationwide Permit General conditions, Regional Conditions, and WQC and CZM certifications. The Corps provided a copy of the NWP 12 with associated conditions. The Corps also states in the email that the Corps does not intend to send further documentation of this decision. Since this correspondence, the Corps has issued a new NWP 57, which addresses electric utility line and telecommunication activities in the WOTUS. ^[4] The Cooperative will follow the requirements of this new NWP 57, also. The Corps did not request a wetlands delineation report during consultation.

Cooperative Energy does not permanently leave matting in wetlands during a construction activity. Matting is removed to ensure that it does not become permanent fill. Matting is also removed because the Cooperative hires a third-party entity to provide and place matting as needed during construction or reconstruction. All matting contractors / third-party entities are directed by Cooperative Energy on the placement location of matting based on wetlands locations. The third-party entity removes their matting once its purpose has been served to use at different locations and/or for use on different projects and/or for use with different customers.

Cooperative Energy will follow the recommendations made by the Corp's Senior Project Manager / Biologist and the permit and conditions listed above.

A practicable alternatives analysis was executed for the project, per Executive Order 11990. This alternatives analysis concluded that the survival and quality of the local wetlands would not affect public health, safety, or welfare of the water supply, quality, recharge and discharge as a result of the project. The project will not impact pollution, flood, or storm hazards. BMPs will be implemented to ensure sediment and erosion are controlled and minimized. The requirements of NWP 57 will also be followed to also ensure local wetlands will be protected.

The project will be constructed and maintained such that the maintenance of natural systems, including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources are sustained. And other uses of wetlands in the public interest, including local recreational, scientific, and cultural uses are also sustained and conserved to the extent that the Cooperative has authority and control to do so. See [Appendix F](#) for maps of wetlands.

3.3.1 Affected Environment

The project will traverse the following Ecoregions of the State of Mississippi in George County: Southeastern Plains sub-ecoregions of Southeastern Floodplains & Low Terraces and Southern Pine Plains and Hill; Southern Coastal Plains sub-ecoregion of Flood Plains and Low Terraces.

The location of wetlands in relation to the area affected by the proposal will be contained in the existing ROW of Lines 71, 72, & 73. The majority of wetlands in the project area are Freshwater Forested/Shrub Wetlands. The Freshwater Forested/Shrub Wetlands, as seen on the NEPAAssist Wetlands Map, are associated with the Pascagoula River and other freshwater streams, creeks, and branches.

The location of the wetlands in relation to the area affected by the proposal are directly related to the areas adjacent to the drainage features of the topography. Specifically, the topographic drainage features are the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek and their associated tributaries. Because the overhead electric transmission line conductor will be hung approximately 55 to 110 feet high depending on the topography, terrain, linear resource crossings, and other factors, the wetlands present in the project area will not be lost or converted, with the exception of the small areas that transmission line poles would be placed into the ground. The size of an area a pole would impact would be less than 0.0023 acres of earth. Furthermore, the average span length between transmission line poles would be an average of approximately seven hundred (700) feet. Because of this, the placement of poles can usually avoid wet areas and wetlands by aerial spanning them. Meaning many, but not all wetland areas in a typical ROW in George County, Mississippi are less than 700 feet relative to the linear nature of the ROW. This wetland avoidance is practiced during pole siting to both protect the wetlands and to ease both construction and future transmission line maintenance efforts. The construction and maintenance of the transmission line and its support structures (poles) require less effort if poles are on dry ground. If poles are sited in wet areas or wetlands, the use of matting would be necessary. While the use of matting is a typical part of overhead electric transmission line construction and maintenance efforts, the cost and effort to place matting and remove matting results in diligent planning and strategies to avoid wet areas and wetlands as often as is practical in a ROW.

The locations of wetlands in relation to the area affected by the proposal are illustrated on the NEPAAssist Map enclosed in the Appendices of this EA. The locations of the wetlands in relation to the area affected by the proposal are indicated on the United States Department of Agriculture Natural Resources Conservation Service's Hydric Soil Rating Maps enclosed in the Appendices of this EA. Hydric soils are defined by the National Technical Committee for Hydric Soils as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (of soil strata).^[5] Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophilic vegetation. Hydrophilic vegetation is one of the several key indicators for the presence of wetlands or WOTUS.

The project will traverse approximately 18,450 linear feet of wetlands in George County, Mississippi. As previously stated, because of the ability to place poles on average, seven hundred (700) feet apart, the vast majority of the wetlands in the project area will not be lost, converted, or otherwise impacted by the project. In addition, as previously stated, the project is the reconstruction of existing overhead

electric transmission lines. No known protests, complaints, communications, or any other methods of disapproval of the existing transmission lines (71, 72, & 73) with relation to their current or past impacts on wetlands in the existing ROW (project area) have been risen by either public, private, local, tribal, state, or federal government entities.

3.3.2 Environmental Consequences

The project will reconstruct existing overhead electric transmission lines in existing ROW in George County, Mississippi. No fill will be placed into wetlands in the project area. Contours of the land and wetlands if altered during construction, will be returned to their original contours and natural condition. Wood mats would be used if equipment and/or construction materials are required to ingress / egress through wetlands. The use of wood matting does not result in environmental consequences. NWP 57 requires that towers, poles, and anchors be the minimum size necessary. The poles to be used in the reconstruction of Lines 71, 72, & 73 will not have footings or paddings to reduce the pole base to its minimum allowable size to reduce environmental impacts and consequences. The project is expected to have no environmental consequences to wetlands or other related features in the project area. Line 71 will traverse the Pascagoula River. This river is listed on the National Rivers Inventory (NRI). Rivers listed on the NRI are believed to possess one or more “outstanding remarkable” natural or cultural values judged to be at least regionally significant. NRI river segments are potential candidates for inclusion in the National Wild and Scenic River System. Some rivers listed on the NRI have been officially designated by Congress as a “study river” to determine if a river can become a candidate of inclusion in the National Wild and Scenic River System, the Pascagoula River is not currently designated as a “study river”.

3.3.3 Mitigation

Cooperative Energy may use wood matting in wet areas on a temporary basis during construction to both protect and preserve wetlands. The wood matting allows construction equipment and materials to travel over wet areas and wetlands without altering the contours of the land. The use of matting also allows for the unimpeded flow of waters in the project area’s construction activities. Once construction is complete, matting will be removed to ensure that it does not become permanent fill. Matting will be removed because the Cooperative hires a third-party entity to provide and place matting as needed during construction or reconstruction. The third-party entity will remove the matting once its purpose has been served to use at different locations and/or for use on different projects and/or for use with different customers.

NWP 57 requires that towers, poles, and anchors be the minimum size necessary. As mitigation, the poles to be used in the reconstruction of Lines 71, 72, & 73 will not have footings or paddings to reduce the pole base to its minimum allowable size to reduce environmental impacts.

Additional mitigation measures will be implemented during Project construction and operation to aid in minimizing potential environmental impacts. Potential mitigation measures include:

- Implementation of proper erosion control measures described by the BMP
- The development and maintenance of BMPs such as:

- Soil and sediment tracked off the project site and onto the surface of a public roadway, paved area, or sidewalk will be removed by sweeping and/or shoveling the roadway, paved area, or sidewalk surfaces, or by using other similarly effective means of sediment removal as practical
- Silt fence will be used to divert water around disturbed soils and construction materials on the project site as applicable
- Temporary structural BMPs must be removed after the project site is stabilized with a uniform perennial vegetative cover of 70 percent density or more for all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures, as applicable
- Periodic site visits to see that vegetation establishment is satisfactory will occur, however, if sufficient vegetative cover has not been achieved, then additional restoration measures will be implemented such as overseeding, mulching, sodding, or the use of erosion control blankets
- Provide and maintain a 50-foot buffer surrounding wetlands and other WOTUS or provide and maintain a natural buffer that is less than 50-feet and contains additional erosion and sediment controls.
- The existing wooden poles will be removed using mitigation methods that will ensure that no fill will be placed into wetlands. New poles locations will be augured. The earth from the augured sites will be disposed of in uplands areas or spread around the structure avoiding placing fill in any wetlands. This will ensure this activity will not disperse fill into wetlands areas.

Cooperative Energy will follow the recommendations made by the Corp's Senior Project Manager/ Biologist during consultation and the Nationwide Permit 57 requirements.

Line 71 will traverse the Pascagoula River. This river is listed on the National Rivers Inventory (NRI). Rivers listed on the NRI are believed to possess one or more "outstanding remarkable" natural or cultural values judged to be at least regionally significant. NRI river segments are potential candidates for inclusion in the National Wild and Scenic River System. Some rivers listed on the NRI have been officially designated by Congress as a "study river" to determine if a river can become a candidate of inclusion in the National Wild and Scenic River System, the Pascagoula River is not currently designated as a "study river".

3.4 Cultural Resources

The following sections provide information on cultural resources in the vicinity of the project, also known as the Area of Potential Effect (APE), as well as potential environmental consequences and proposed mitigation. Cultural resources include archaeological and historic sites, buildings, structures and objects of historic, scientific, social importance and value, or places of spiritual and cultural significance. The APE is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alteration in the character or use of historic properties, if such properties exist. The APE effect is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, and 1992), specifically Section 106 of the act, is the primary legislation that mandates Federal management and the protection of cultural resources. For the purpose of Section 106 compliance, properties are considered significant if they meet any one or combination of the four

criteria for listing on the National Register of Historic Places (NRHP) (36 CFR part 60). RUS has designated Cooperative Energy the responsibility to initiate Section 106 consultation with the Mississippi Department of Archives and History (MDAH), interested public, and Native American tribes. Consultation means the process of seeking, discussing, and considering the views of other participants, and where feasible, seeking agreement with them regarding matters arising in the Section 106 process.

3.4.1 Affected Environment

The purpose of the proposed project is to rebuild the overhead 69kV transmission line system to improve the reliability due to increased load in the area for Cooperative Energy as well as for the number of aging wood poles nearing the end of their life span (these are less than 50 years old). The project is divided into three contiguous sections. Line 71 measures 11.9 miles (19.2 km); Line 72 runs for 9 miles (14.5 km); and Line 73 measures 8 miles (13 km) in length, approximately. The ROW is 100 ft (30.48 m) wide. Acreage for the three lines is: Line 71 - 144.8 acres (58.6 hectares [ha]); Line 72 - 109.9 acres (44.47 ha); Line 73 - 92.2 acres (37.3 ha) for a total of 346.9 acres (140.4 ha). Except for a portion on Line 71 located within the Pascagoula WMA, the project corridor is privately owned and leased by Cooperative Energy. A general description of the projects is:

Line 71 - Benndale 69kV Substation to Basin 69kV GOAB Switching Station - existing 69 kV transmission line will be rebuilt between Cooperative Energy's existing Benndale 69kV Substation to Cooperative Energy's existing Basin 69kV GOAB Switching Station.

Line 72 - Basin 69kV GOAB Switching Station to Agricola 69kV Switching Station - existing 69 kV transmission line will be rebuilt between Cooperative Energy's existing Basin 69 kV GOAB Switching Station to Cooperative Energy's existing Agricola 69kV Switching Station.

Line 73 - Rocky Creek 69kV Switching Station to Agricola 69kV Switching Station - existing 69 kV transmission line will be rebuilt between Cooperative Energy's existing Rocky Creek 69kV Switching Station to Cooperative Energy's existing Agricola 69kV Switching Station.

Cooperative Energy submitted a Request for Cultural Resource Assessment to the MDAH for the project on April 27, 2020. The MDAH reviewed the proposed project under Section 106 of the (NHPA) and 36 CFR Part 800 and responded with their letter dated June 17, 2020. This letter documented their determination that due to the topography of the area and the presence of archaeological sites near the proposed project area, a cultural resources survey is necessary.

TerraXplorations (TerraX) was hired to perform the requested cultural resources survey. TerraX provided *A Phase I Cultural Resources Survey for the Lucedale Transmission Line Rebuild, George County, Mississippi* dated May 25, 2021. Before conducting the fieldwork, TerraX performed a literature and document search in order to gather pertinent background information regarding the subject property and its surroundings. This search included an online query of the Mississippi State Archaeological Site File (MSASF). A one mile (1.6 kilometers [km]) radius search was conducted around the proposed project area for previously recorded archaeological sites and previous cultural resource surveys. The search area was also inspected for historic structures recorded within the MDAH historic property files and in the NRHP.

The results of the Background research (literature and existing documents) revealed five previously recorded historic resources, 28 previously recorded sites, and 30 previously conducted cultural resource surveys within a mile of the study area.

There is one NRHP-listed property within one mile. Three previously recorded sites, the NRHP-listed property, and portions of six surveys are within or immediately adjacent to the survey route.

The Phase I field survey was performed from February 8-25, 2021 TerraXplorations, Inc. The purpose of the study was to determine if any prehistoric or historic properties exist within the survey boundaries, and if so, to document and assess each based on the NRHP criteria.

The Phase I survey was guided by procedural standards established by MDAH. Land coverage requirements were achieved through visual inspections and subsurface testing of the entire survey area. Any exposed surfaces were carefully examined for cultural material. When cultural material is encountered, the material is sorted by provenience and placed into bags labeled with the pertinent excavation information before being transported to TerraX's laboratory.

Any archaeological sites identified during the investigation are further examined in order to better define their horizontal and vertical limits.

Any cultural materials recovered during field projects are delivered to TerraX's laboratory in Mobile, Alabama for processing. Here, materials are sorted by provenience, cleaned, and analyzed. Along with any cultural material, all project records, photographs, and maps produced while conducting the investigation are transported for curation at MDAH in Jackson, Mississippi.

A summary of the results of the field investigation are as follows:

The project area is within an existing transmission line ROW. The route traverses pastures, fallow fields, grass, weedy briars, wetlands, creeks, ponds, highways, and the Pascagoula River. It runs through low areas, slopes, and across ridgetops. Much of the route is very eroded or wet. It begins in the northwest at a substation just north of CR26 in the Benndale community. From here it runs southeast, crosses the Pascagoula River, runs southeast and east to Agricola, then north to a substation on Rocky Creek Road just north of CR198. Both surface and subsurface inspections were conducted during the survey. A total of 1,567 transect shovel tests were attempted within the project area, not counting any site delineation tests. Of these, 1,381 shovel tests contained no cultural material and 286 of the shovel tests were not dug due to slope, standing water, or roads. An attempt was made to revisit three previously recorded sites and two new sites were recorded.

The resulting Phase I Cultural Resources Report was forwarded to the MDAH on June 29, 2021.

The MDAH responded with their concurrence letter dated July 13, 2021. This letter documented that their review of the Phase I report concurred that the recommended mitigation methods will result in no adverse impacts to the site discussed in the report to be avoided. In addition, there are two (2) sites that were identified in the report where the boundaries cannot be established, the project should not adversely impact these sites. Two (2) new sites were identified in the report which, are both ineligible for listing in the NRHP and the project will have no effect on these two sites. The agency goes on to state, "With these conditions, we have no reservations with the project."

3.4.2 Environmental Consequences

Temporary impacts from the project could occur as a result of the increased presence of human and vehicle disturbance during construction; but it is not anticipated that these impacts would be measurable or of consequence.

Three previously recorded sites were revisited and two new sites were recorded during the Phase I Field Survey described above.

One site that was revisited showed that it was located outside of the transmission line corridor (ROW) and project boundaries. Mitigation measures are associated with this one site discussed in the Phase I Cultural Resource report. The other two (2) sites that were revisited resulted in the discovery that no evidence of either site was found.

The newly discovered sites are recommended as ineligible for the NRHP.

With BMPs and mitigation measures described in detail in the *A Phase I Cultural Resources Survey of the Lucedale transmission Line Rebuild* report dated May 25, 2021 and MDAH letter dated July 13, 2021, the project will have no environmental consequences on cultural resources in the project area.

No Memoranda of Agreement or Programmatic Agreements are in effect or applicable for the proposed action.

3.4.3 Mitigation

Cooperative Energy will have no clearing of vegetation activities within the entire project area. A Phase I Cultural Resources Survey for the Lucedale Transmission Line Rebuild report dated May 25, 2021 and MDAH letter dated July 13, 2021 identified one of the revisited sites as being located outside of the transmission line corridor (ROW) and project boundaries. There have been mitigation measures outlined in detailed in the report and MDAH letter. Cooperative Energy will avoid placing transmission line support structures within the site footprint, avoid construction near and/or within this area during wet periods, utilize the southern portion of the ROW in this area to move equipment and materials during construction, and avoid this site by placing wooden mats on the surface if equipment and/or trucks will need to traverse the area. Cooperative Energy will utilize the site's shapefiles to ensure the location of the site is avoided. The location of cultural sites are considered sensitive information and should be protected. Cooperative Energy and Contractor (including their employees and subcontractors) will ensure that the location of this cultural site is protected by not sharing the location information outside of the workplace or on any social media outlet (newspaper, Facebook, Instagram, Twitter, etc.)

Cooperative Energy shall ensure that Contractors maintain a copy of the following inadvertent discovery plan onsite for review:

a. If during the course of any ground disturbance related to any project, any post review discovery, including but not limited to, any artifacts, foundations, or other indications of past human occupation of the area are uncovered, shall be protected by complying with 36 CFR § 800.13(b)(3) and (c) and shall include the following:

i. All Work, including vehicular traffic, shall immediately stop within a 50 ft. radius around the area of discovery. The Contractor shall ensure barriers are established to protect the area of discovery and notify the Applicant to contact the appropriate RD personnel. The Applicant shall engage a Secretary of the Interior (SOI) qualified professional archeologist to quickly assess the nature and scope of the discovery; implement interim measures to protect the discovery from looting and vandalism; and establish broader barriers if further historic and/or precontact properties, can reasonably be expected to occur.

ii. The RD personnel shall notify the appropriate RD environmental staff member, the Federal Preservation Officer (FPO), and State Historic Preservation Office (SHPO) immediately. Indian tribe(s) or Native Hawaiian Organization (NHOs) that have an interest in the area of discovery shall be contacted immediately. The SHPO may require additional tribes or NHOs who may have an interest in the area of discovery also be contacted. The notification shall include an assessment of the discovery provided by the SOI qualified professional archeologist.

iii. When the discovery contains burial sites or human remains, the Contractor shall immediately notify the appropriate RD personnel who will contact the RD environmental staff member, FPO, and the SHPO. The relevant law enforcement authorities shall be immediately contacted by onsite personnel to reduce delay times, in accordance with tribal, state, or local laws including 36 CFR Part 800.13; 43 CFR Part 10, Subpart B; and the Advisory Council on Historic Preservation's Policy Statement Regarding treatment of Burial Sites, Human Remains, or Funerary Objects (February 23, 2007).

iv. When the discovery contains burial sites or human remains, all construction activities, including vehicular traffic shall stop within a 100 ft. radius of the discovery and barriers shall be established. The evaluation of human remains shall be conducted at the site of discovery by a SOI qualified professional. Remains that have been removed from their primary context and where that context may be in question may be retained in a secure location, pending further decisions on treatment and disposition. RD may expand this radius based on the SOI professional's assessment of the discovery and establish broader barriers if further subsurface burial sites, or human remains can reasonably be expected to occur. RD, in consultation with the SHPO and interested tribes or NHOs, shall develop a plan for the treatment of native human remains.

v. Work may continue in other areas of the undertaking where no historic properties, burial sites, or human remains are present. If the inadvertent discovery appears to be a consequence of illegal activity such as looting, the onsite personnel shall contact the appropriate legal authorities immediately if the landowner has not already done so.

vi. Work may not resume in the area of the discovery until a notice to proceed has been issued by RD. RD shall not issue the notice to proceed until it has determined that the appropriate local protocols and consulting parties have been notified and concur that work can resume.

3.5 Biological Resources

The following sections provide information on the vegetation, wildlife, and protected species in the project area, as well as potential environmental consequences and proposed mitigation.

3.5.1 General Fish, Wildlife, and Vegetation

The majority of the project area is within the Southern Pine Plains and Hills region of the Southeastern Plains ecoregion. There is a mixture of cropland, pasture, woodland, and forestland cover. Longleaf pine was the predominant tree species historically, with smaller areas of oak-pine and southern mixed forest. Most of the longleaf pine has disappeared and been replaced by slash and loblolly pine, although there have been some attempts to restore the longleaf forest. The longleaf pine forest was the ideal habitat for now rare or endangered species such as the red-cockaded woodpecker (*Picoides borealis*), gopher tortoise (*Gopherus polyphemus*), eastern indigo snake (*Drymarchon corais couperi*), and black pine snake (*Pituophis melanoleucus lodingi*).

The land cover within and surrounding the project provide habitat for numerous wildlife species common in Mississippi including white tailed-deer (*Odocoileus virginianus*), fox squirrel (*Sciurus niger*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), eastern cottontail (*Sylvilagus floridanus*), mourning dove (*Zenaidura macroura*), yellow-rumped warbler (*Setophaga coronata*), eastern American toad (*Anaxyrus americanus*) and American green tree frog (*Hyla cinerea*). Wet savannas and bogs contained an array of colorful wildflowers: red lilies, orange milkweeds, yellow pitcher plants, lavender butterworts, and purple sundews.

The project area contains numerous waterways including the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek. These waterways provide the ideal ecosystems for the common spotted bass (*Micropterus punctulatus*), Bream (Blue Gill), Catfish, Minnows, White Crappie (*Pomoxis annularis*), and Black Crappie (*Pomoxis nigromaculatus*).

The humid climate, long growing season, and plentiful rainfall provide south Mississippi with a remarkable variety of plant and animal life. Live oaks (*Quercus virginiana*), Magnolia, pecan trees and several varieties of pines such as white longleaf (*Pinus palustris*) and slash pines (*Pinus elliotii*) are characteristic of the types of vegetation in George County. Magnolia (*Magnolia grandiflora*) and pecan trees are plentiful throughout the state and George County. Pine forests, often intermixed with oaks, are found in George County's sandier soils.^[8]

Native shrubs in areas adjacent to the project area include Red Buckeye (*Aesculus pavia* Linnaeus), Honeysuckle Azalea (*Rhododendron canescens*), and Staghorn Sumac (*Rhus typhina*).^[9,10]

The project area does contain special areas of concern such as riparian zones and wetlands. The project area does not contain special areas of concerns such as prairie remnants or old growth forest. The project is expected to have minimal temporary affects on special areas of concern in the project area during construction. No permanent affects on these zones is expected.

3.5.1.1 Affected Environment

The reconstruction, operation, and maintenance occurring at the project would not result in the loss of vegetation in the project area. The ROW has and will be maintained with periodic herbicide use and

tree clearing to prevent trees from growing within the ROW. With the use of herbicide, non-targeted plants could be affected by over spraying, drift, or accidental discharge during the application process. However, training with the equipment and the proper technique of applying the herbicides would mediate any potential issues to non-target plants. Herbicide would not be applied in unfavorable weather conditions. However, because the project will reconstruct overhead electric transmission lines in existing ROW, little, if any vegetation will be cleared prior to and during construction activities.

3.5.1.2 Environmental Consequences

Temporary impacts from the project could occur as a result of the increased presence of human and vehicle disturbance during construction. Temporary displacement of species might occur due to vehicle traffic and material transfer. Indirect impacts to wildlife as a result of vehicle collisions will also be an increased risk during construction. The majority of species affected will be mobile and able to move away from any impacts, but others could be vulnerable. Permanent impacts during the construction and maintenance of the project will occur for wildlife currently utilizing the ROW due to habitat loss. The wildlife permanently impacted could include nesting birds, invertebrates, small mammals, reptiles, and amphibians that are not as mobile or able to leave the project area. However, because the project activities will occur within an existing ROW cleared of vegetation over four decades ago, the potential effects addressed above, will be minimal and infrequent.

The project area contains numerous waterways including the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek. The reconstruction of Lines 71, 72, & 73 will not cause vehicles, equipment, or materials to ford creeks, streams, or other waterways in George County. This will protect aquatic life such as fish and vegetation in and adjacent to waterways in the project area.

The project should have no resulting environmental consequences that would impede stream or river flows, create forest fragmentation, impact fish, wildlife, or vegetation.

3.5.1.3 Mitigation

Construction and survey crews have been and will be instructed to cause no harm to animal species, including snakes. No vehicles, equipment, or materials will ford creeks, streams, or other waterways. Heavy equipment and materials can cause minor damage to ground level vegetation. Impacts to fish, wildlife, and vegetation include long-term impacts (minimal removal of existing vegetation) and short-term impacts associated with construction. Construction impacts would be minimized with BMPs to control and minimize erosion. After construction is complete, disturbed areas would be stabilized with native revegetation and/or revegetated as needed.

Additional mitigation measures will be implemented during project construction and operation to aid in minimizing potential environmental impacts. Potential mitigation measures include:

- Implementation of proper erosion control measures described by the BMP
- The development and maintenance of BMPs such as:
- Soil and sediment tracked off the project site and onto the surface of a public roadway, paved area, or sidewalk will be removed by sweeping and/or shoveling the roadway, paved area, or sidewalk surfaces, or by using other similarly effective means of sediment removal as practical

- Silt fence will be used to divert water around disturbed soils and construction materials on the project site as applicable
- Temporary structural BMPs must be removed after the project site is stabilized with a uniform perennial vegetative cover of 70 percent density or more for all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures, as applicable
- Periodic site visits to see that vegetation establishment is satisfactory will occur, however, if sufficient vegetative cover has not been achieved, then additional restoration measures will be implemented such as overseeding, mulching, sodding, or the use of erosion control blankets
- Provide and maintain a 50-foot buffer surrounding wetlands and other WOTUS or provide and maintain a natural buffer that is less than 50-feet and contains additional erosion and sediment controls.

These mitigation practices are anticipated to mitigate any temporary impacts that could occur in special areas of concern such as riparian zones and wetlands.

3.5.2 Listed Threatened and Endangered Species

Cooperative Energy consulted with the United States Department of the Interior's Fish and Wildlife Service's (USFWS) Mississippi Ecological Services Field Office in Jackson, Mississippi for the project on April 27, 2020. See Appendix H for consultation information. Cooperative Energy provided the USFWS with a project description, the project location, and maps for the project so that the agency could determine the federally listed threatened and endangered species in the project area. The USFWS responded with their letter dated April 30, 2020. The USFWS provided the species listed for the project. The federally listed species are the Gulf sturgeon, wood stork, pearl darter, yellow blotched map turtle, Louisiana quillwort, dusky gopher frog, gopher tortoise, and black pinesnake. The letter states that based on the fact that the project does not include activities that would result in direct or indirect impacts to major rivers, it's unlikely that the Gulf sturgeon, pearl darter, or the yellow blotched map turtle would be adversely impacted by the proposed project. The adult wood stork would be expected to avoid the project area, and it is unlikely this species would be adversely impacted by the project. The Service states that given that no critical habitat for the dusky gopher frog will be impacted, it is unlikely that this species would be adversely impacted by the project.

The Service recommends a site survey to determine if the Louisiana quillwort, gopher tortoise, and the black pinesnake can be found in the project area.

The Cooperative hired Wetland Consulting Services, Inc. to perform the recommended threatened and endangered species survey. Their field survey resulted in a report dated June 11, 2020. The report documents that gopher tortoise burrows are present in the project area.^[11] No other species listed in George County and addressed by the USFWS protected species determination letter were located or observed in the proposed project area during the survey. Wetland Consulting Services, Inc. recommends that Cooperative Energy use the Gopher Tortoise Management Plan on ROW guidelines for avoidance and protection measures that Cooperative Energy has previously utilized and that has been agreed on by the USFWS for previous projects. Because there is suitable habitat for the Black Pine Snake, the Gopher Tortoise Management Plan includes a "no harm to snakes" policy that will provide mitigation for the protection of the Black Pine Snake and other snakes in the project area during

construction. This standard protection measure Plan will prevent migration of the gopher tortoise onto the project area during the construction process.

The report also documents the following:

Species Surveys

Black pine snake (*Pituophis melanoleucus* ssp. *Lodingi*)

The Black Pine Snake habitat is similar to that preferred by the gopher tortoise, so habitat was located at the site. Open canopy pine plantation was not present, but the existing pine plantation areas along the open ROW provided best habitat and adjacent grassy areas on the ROW would be good for the species. Some of the pine plantation area is professionally managed and appears to be burned resulting in down limbs (hardwoods) and plenty of cover opportunities for the snake. Adjacent properties also contain wooded areas, pasture, and water supplies. Cogon Grass was thick in many areas of the ROW and adjacent properties which would diminish habitat. During the survey periods the species was not observed within the project area, and no evidence of this species was found in potential egress and ingress areas or in adjacent properties. Although the species was not observed the habitat at the site is suitable, and the area could be utilized and would be an area to hunt for food from adjacent properties. Gopher tortoise burrows were present in many areas of the ROW.

Louisiana quillwort (*Isoetes louisianensis*)

The project area did provide some potential habitat for the species along the larger stream channels located in the project area. The survey was conducted in late May and June which is not the ideal time for a field survey, but most of the intermittent streams still had water flow during the survey. The initial site review and scope of the project indicates the stream crossings will be spanned by the project with no poles planned within any close proximity to the streams where the quillwort could possibly exist. Many of the smaller tributaries were overgrown and provide heavy shade to the stream banks. These areas would not be suitable habitat. During the field survey, the stream banks that presented the best habitat potential was transected for the species. Wetland areas that could potentially contain the species were delineated during the field survey, and observation for the species along the ROW was completed. During the survey, no quillwort plants were observed along potential stream beds or within wetland boundaries in the project area.

Gopher tortoise (*Gopherus Polyphemus*)

The preliminary review of the site for the Gopher Tortoise indicated the project is an existing ROW area with preferred, marginal and suitable soil types located within the study corridor. The priority soils are Alaga and Eustis. The suitable soils include Benndale, Lucedale, Harleston, McLaurin. The marginal soils on the ROW include Susquehanna and Basin. A ROW area with these soil types warranted a field survey. The field survey was conducted in May and June of 2020 and the entire project area was surveyed. In addition, adjacent properties within 50-100 feet of the project area were inspected if potential habitat was located and access was available. The field survey found large areas of suitable habitat, areas without suitable habitat included wetland areas and/or areas that were too overgrown to support the species. There were areas along the ROW that contained pure stands of cogon grass. During the survey active tortoise burrows were located. Additional burrows were located that appeared abandoned or inactive.^[11]

The report was forwarded to the Service. The Threatened and Endangered Species report has been provided to the agency for their file.

The Service responded to the Threatened and Endangered Species report dated June 11, 2020 with their letter dated August 31, 2020. The Service determined that the proposed project **may affect but is not likely to adversely affect** the gopher tortoise provided Cooperative Energy adopt standard gopher tortoise conservation measures that avoid impacts to the gopher tortoise and its burrows. These conservation measures should include flagging all burrows, installing silt screen fencing a minimum of 25-feet from all burrows. Heavy equipment must be kept out of the 25-foot buffer zone. The hand clearing of vegetation is acceptable near these buffer zones. The Cooperative must educate workers on the project of the conservation methods for protecting the tortoise burrows.

The Service added that since the black pinesnake habitat can be found in or adjacent to the project area, it is recommended that no harm to snakes encountered during project activities take place. Provided conservation measures are implemented and snakes are not harmed, the Service has determined the proposed project **may affect but is not likely to adversely affect** the black pinesnake.

The Service also addressed the Louisiana quillwort, stating that based on the absence of the species in streams identified as potential habitat during the field surveys, the Service has determined that the proposed project **may affect but is unlikely to adversely affect** the Louisiana quillwort.

The Service also documents in their letter that no further consultation is required with their office unless there are changes in the scope or location of the proposed project.

3.5.2.1 Affected Environment

The State of Mississippi has one species listed as a species of special concern. That species is the Wood Stork. The IPaC Consultation Code 04EM1000-2021-SLI-1220 document lists the following species as threatened or endangered in the project area: Wood Stork, Black Pine Snake, Eastern Indigo Snake, Gopher Tortoise, Yellow-blotched Map Turtle, Dusky Gopher Frog, Gulf Sturgeon, Pearl Darter, and Louisiana Quillwort. The IPaC Report lists one critical habitat wholly or partially within the project area for the Gulf Sturgeon.

The reconstruction, operation, and maintenance occurring at the project would not result in the loss of threatened or endangered species in the area. As addressed in the Section 3.5.2.3 Mitigation, species found in the affected environment within the project area will be protected. Construction and survey crews will be made aware of and trained to use the mitigation methods described in Section 3.5.2.3. Mitigation methods and practices could have minimal temporary effects on the environment. The installation of silt fencing to discourage gopher tortoises from moving into the construction area will impact the immediate environment and other small terrestrial creatures and their ability to move freely within the ROW. This and other mitigation measures needed during construction activities will be removed after construction is completed, allowing the free movement of the gopher tortoise and other small terrestrial creatures in their environment.

3.5.2.2 Environmental Consequences

Construction of the original overhead electric transmission Lines 71, 72, & 73 in the 1960's & 1970's cleared wooded areas and vegetation in George County to create a ROW for said transmission lines. The

clearing of this vegetation created herbaceous ground cover, sparse shrub cover, and open canopy areas in the ROW. These type of ecosystem attributes, along with well-drained, sandy soils are suitable habitat for species like the gopher tortoise, Eastern Indigo snake, and black pinesnake. If not for the creation and presence of the existing ROW, also known as the project area, it is possible that the species delineated during the threatened & endangered species field survey discussed above, may not be present in the project area today.

The project area contains one hundred sixty (160) active, inactive, and abandoned gopher tortoise burrows. The gopher tortoise population is thriving and reproducing in the project area. Though no black pinesnakes or Eastern Indigo snakes were observed during the Field Survey, it is probable that these species are also thriving in the project area.

The project has one critical habitat wholly or partially within its footprint for the Gulf Sturgeon. Because the project will aerially span (overhead electric transmission conductor) any waterbodies or rivers and because no transmission line poles will be sited in waterbodies or rivers, any critical habitat used by the Gulf Sturgeon will be shielded from impacts.

Cooperative Energy will implement all requested and necessary protection and mitigation plans & measures to ensure that there will be no environmental consequences to threatened & endangered species in the project area. The project will have no adverse environmental consequences on plant or animal species in the project area.

3.5.2.3 Mitigation

As discussed in Section 3.5.2.1, the threatened gopher tortoise was observed in the project area. Although the gopher tortoise is listed as “threatened” on the Federally Threatened and Endangered Species list, the gopher tortoise is very common in Mississippi’s upland, well-drained, sandy soil areas. Because of this, Cooperative Energy and its contractors are familiar with the species, its habitat, and gopher tortoise burrow identification. Additionally, Cooperative Energy and its contractors have years of experience implementing gopher tortoise avoidance (mitigation) practices during ROW and transmission line construction.

Construction and survey crews have been and will be instructed and trained to cause no harm to animal species, including snakes. Cooperative Energy will implement the follow mitigation measures:

Implement and maintain standard gopher tortoise conservation measures that avoid impacts to the gopher tortoise and its burrows. These conservation measures include flagging all burrows, installing silt screen fencing a minimum of 25-feet from all burrows. Heavy equipment will be kept out of the 25-foot buffer zone. Cooperative Energy will educate employees and hired third-party contractors working on the project on the conservation methods for protecting the tortoise burrows.

No harm to snakes encountered during project activities will be allowed to take place during project activities.

After construction is complete, disturbed areas would be stabilized with native vegetation and/or revegetated as needed. Silt fencing used to isolate the gopher tortoise temporarily during construction, will be removed once construction is complete and all vehicles are removed from the project area.

3.5.3 Migratory Bird Treaty Act

George County, Mississippi has two “important bird areas” (IBA) within its territory.^[12] The largest of the two IBA is the Pascagoula River and Ward Bayou WMAs. This WMA is fifty thousand three hundred sixty (50,360) acres in size. This area is within the Gulf Coast Prairie ecoregion, also known as the Southern Coastal Plain.

This site is within the Pascagoula River watershed, the only large, unimpeded river system in the lower 48 United States. This state-owned property stretches along 50 miles of the Pascagoula River. Because of the unaltered state of the Pascagoula River, the majority of the site is subject to natural seasonal flooding. The Mississippi Department of Wildlife, Fisheries, and Parks owns and manages these contiguous WMAs primarily for hunting and fishing. This site also provides opportunities for paddling, birdwatching and general nature observation. The Pascagoula River WMA was one of the most significant conservation land purchases by a state when it was acquired in the 1970s; Ward Bayou WMA was acquired as mitigation for the loss of forested wetlands during the construction of the Tennessee-Tombigbee Waterway.

The ornithological significance of the Pascagoula River and Ward Bayou WMA is as follows:

This IBA has been identified as an important site for the conservation of Swallow-tailed Kites. It provides an important north-south corridor for songbirds migrating across the Gulf of Mexico and is comprised mainly of bottomland hardwood forests with many scattered oxbow lakes.

The other IBA in George County, Mississippi is the Deaton Preserve. The Deaton Preserve is three thousand two hundred seventy-nine (3,279) acres in size and is within the Gulf Coast Prairie ecoregion.

This IBA is a major bottomland hardwood restoration site at the headwaters of the Pascagoula River, the last major unimpeded river system in the lower 48 states. It is owned and managed by The Nature Conservancy, which has played a major role in the conservation of important native habitats in the Pascagoula River watershed. The site is the northernmost component of the Pascagoula River corridor, an important nesting and roosting area for Swallow-tailed Kites that also provide critical habitats for landbirds migrating across the Gulf of Mexico. Much of the bottomland hardwood forest is mature with scattered openings resulting from forestry and past wildlife game management practices. More than ninety percent of the site is classified as a wetland and several oxbow lakes exist.

Ornithologically, this site is very similar to Pascagoula River-Ward Bayou WMAs. Areas of the Deaton Preserve have the habitat variability and therefore the hydrology and vegetative structure in the understory in certain places to support nesting Swainsons warblers, perhaps more so than other parts of the Pascagoula River corridor. Preliminary weather radar observations indicate the river corridor, including the Deaton Preserve, supports significant numbers of migrant landbirds. Common breeding species on the Deaton Preserve and birds of conservation concern include Prothonotary Warbler, Kentucky Warbler, Yellow-billed Cuckoo, Chimney Swift, Wood Thrush, Carolina Chickadee, White-eyed Vireo, Hooded Warbler, Yellow-throated Vireo, Summer Tanager and Acadian Flycatcher. Migrant species of conservation concern include Cerulean Warbler, Golden-winged Warbler, Olive-sided Flycatcher, Veery and Canada Warbler. In winter, Blue-headed Vireo and Winter Wren are fairly common in appropriate habitats. In the summer of 2001, a recently fledged Sharp-shinned Hawk was observed on this IBA, suggesting local breeding.

The project area transverses both IBAs.

The wood stork is listed for protection under the Migratory Bird Act.^[13] The wood stork is also listed by the State of Mississippi as a threatened species statewide. During consultation with the USFWS, the agency determined that the adult wood stork would be expected to avoid the project area and it is unlikely this species would be adversely impacted by the project.

The project will occur approximately thirty (30) miles from the nearest shoreline. A review of the Western Hemisphere Shorebird Reserve Network reveals that no critical areas for use by shorebirds is in or near the project area.

3.5.3.1 Affected Environment

The project area traverses the Deaton Preserve located in the northwest portion of George County. Specifically, Transmission Line 71 traverses the Preserve. Transmission Line 71 also traverses the Pascagoula River-Ward Bayou WMAs. Transmission Lines 72 and Line 73 do not traverse these or any IBAs. See [Appendix H](#) for additional information on the IBAs.

3.5.3.2 Environmental Consequences

The potential direct impacts to birds through collision with the project is low. Migratory birds in the project area have the ability to see the transmission line support structures, the hung conductor, cross-members, and other physical aspects and components of the project. Migratory birds have been known to use transmission lines as nesting areas and resting areas. There have been no known takes of migratory birds caused by the existing Lines 71, 72, & 73 in George County. Therefore, we expect that the reconstruction of this infrastructure will not result in the potential for direct impacts to birds through collision with the project.

The reconstruction of Transmission Lines 71, 72, and 73 will not alter the existing environment in the long term. Temporary impacts from the project could occur as a result of the increased presence of human and vehicle disturbance during construction. Temporary displacement of migratory birds might occur due to vehicle traffic and material transfer. Indirect impacts to migratory birds as a result of vehicle collisions will also be an increased risk during construction. The majority of migratory birds affected will be mobile and able to move away from any impacts, but others could be vulnerable. Permanent impacts during the construction and maintenance of the project will not occur for migratory birds currently utilizing the ROW. The existing transmission lines to be reconstructed, in their current location and status, have not caused any environmental consequences to migratory birds or their habitats to Cooperative Energy's knowledge. The reconstruction of transmission Lines 71, 72, & 73 will not permanently change the existing environmental conditions or status. The conditions and status of the environment could be temporarily altered during construction but is not expected to result in any environmental consequences to migratory birds because these birds would be expected to avoid the site during construction.

3.5.3.3 Mitigation

Construction and survey crews have been and will be instructed and trained to cause no harm to animal species, including birds. No vehicles, equipment, or materials will ford creeks, streams, or other linear waterways. Because the project is taking place in existing ROW that has already been cleared of vegetation and trees, no nesting habitat or other habitat used by migratory birds will be altered. The act of reconstructing the overhead electric transmission lines in existing ROW is itself a form of mitigation.

No new ROW will be necessary or created for the project. After construction is complete, disturbed areas would be stabilized with native vegetation and/or revegetated as needed.

3.5.4 Bald and Golden Eagle Protection Act

The United States Congress passed the Bald Eagle Protection Act in 1940.^[14] The purpose of the Act was to protect the symbol of American ideals of freedom from extinction. The Act was amended and renamed in 1962. The amended title was the Bald and Golden Eagle Protect Act.^[15] The amended Act addressed the reduction in the Bald Eagle population within the United States of America. The amended Act also addressed the additional protection of the Bald Eagles that were mistakenly being killed and otherwise impacted by people mistaking the Bald Eagle as Golden Eagles. The Bald Eagles' iconic and distinctive white feather colored head does not develop until the eagle reaches the fourth year of growth. The Bald Eagle looks much like the Golden Eagle until each eagle reaches the age of approximately four years old.

The Bald and Golden Eagle Projection Act prohibits the sell, purchase, barter, trade, import, and export at any time or in any manner, any Bald Eagle (*Haliaeetus leucocephalus*) or any Golden Eagle (*Aquila chrysaetos*). The Act also prohibits the sell, purchase, barter, trade, import, and export at any time or in any manner, any Bald Eagles' (*Haliaeetus leucocephalus*) or any Golden Eagles' (*Aquila chrysaetos*) parts, nests, or eggs. The transportation into or out of the United States any live Bald or Golden Eagle or any live eggs of these birds is prohibited by the Act. See [Appendix H](#) for Bald or Golden Eagle Fact Sheets.

3.5.4.1 Affected Environment

The project will traverse the following Ecoregions of the State of Mississippi in George County: Southeastern Plains sub-ecoregions of Southeastern Floodplains & Low Terraces and Southern Pine Plains and Hill; Southern Coastal Plains sub-ecoregion of Flood Plains and Low Terraces. These Ecoregions provide a mixture of cropland, pasture, woodland, and forest land cover. Longleaf pine was the predominant tree species historically, with smaller areas of oak-pine and southern mixed forest. Most of the longleaf pine has disappeared and been replaced by slash and loblolly pine, although there have been some attempts to restore the longleaf forest. Mature stands of timber in the project area are uncommon.

Bald eagles live near rivers, lakes, and marshes where they can find fish, their staple food. As their populations grow, however, bald eagles are expanding their range, even nesting in urban areas. Bald eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion.

Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.

Bald eagles usually choose the tops of large trees to build nests, which they typically use and enlarge each year. However, nests have also been found on cliffs, the ground, and even on human-made structures like cell phone towers.^[15]

Golden Eagles build nests on cliffs or in the largest trees of forested stands that often afford an unobstructed view of the surrounding habitat. Their nests are usually, sticks and soft material added to existing nests, or new nests that are constructed to create strong, flat or bowl-shaped platforms.

Golden Eagles avoid nesting near urban habitat and do not generally nest in densely forested habitat. Individuals will occasionally nest near semi-urban areas where housing density is low and in farmland habitat; however, Golden Eagles have been noted to be sensitive to some forms of human presence.^[16]

The reconstruction, operation, and maintenance occurring at the project would not result in the loss of any habitat suitable for the Bald Eagle or the Golden Eagle in the project area and surrounding environment.

3.5.4.2 Environmental Consequences

The United States Fish and Wildlife Service's available data shows the estimated breeding pairs of Bald Eagles in the state of Mississippi is thirty-one (31) pairs.^[17, 18] This implies the number of Bald Eagles in the project area will be low.

Golden Eagles will migrate from the Canadian provinces and northern tier and northeastern states to areas that are milder in the winter and/or may have less snow cover. During winter, Golden Eagles are found throughout the continental United States. Golden Eagles tend to migrate during midday along north-south oriented cliff lines, ridges, and escarpments, where they are buoyed by uplift from deflected winds.

The project area was cleared of vegetation during the construction of the original transmission Lines 71, 72, & 73 in the late 1960's & early 1970's. As described above, the Bald Eagle and the Golden Eagle prefer habitat that is typically the tallest terrestrial feature of a given area. No such habitat, such as treetops, trees, or cliff tops will be altered in the project area and surrounding area. The project, consisting of the reconstruction of the transmission Lines 71, 72, & 73 will not require the clearing of trees or large vegetation. The project will be constructed within the existing ROW. Due to this, no environmental consequences to the Bald Eagle or the Golden Eagle are expected as a result of the project.

During consultation with the United States Fish and Wildlife Service about the project, the Bald Eagle nor the Golden Eagle was addressed as a concern to the agency, with regard to the reconstruction of overhead electric transmission lines 71, 72, & 73.

3.5.4.3 Mitigation

Construction and survey crews have been and will be instructed and trained to cause no harm to animal species, including birds. No vehicles, equipment, or materials will ford creeks, streams, or other linear waterways. Because the project is taking place in existing ROW that has already been cleared of vegetation and trees, no nesting habitat or other habitat possibly used by Bald Eagles or Golden Eagles will be altered. The act of reconstructing the overhead electric transmission lines in existing ROW is itself a form of mitigation. No new ROW will be necessary nor created for the project. After construction is complete, disturbed areas would be stabilized with native vegetation and/or revegetated as needed.

Cooperative Energy will not sell, purchase, barter, trade, import, and export at any time or in any manner, any Bald Eagle (*Haliaeetus leucocephalus*) or any Golden Eagle (*Aquila chrysaetos*). Cooperative Energy will not sell, purchase, barter, trade, import, and export at any time or in any manner, any Bald Eagles' (*Haliaeetus leucocephalus*) or any Golden Eagles' (*Aquila chrysaetos*) parts,

nests, or eggs. Cooperative Energy will not transport into or out of the United States, any live Bald or Golden Eagle or any live eggs of these birds.

3.5.5 Invasive Species

Executive Order 13112, “Invasive Species” was signed by President William J. Clinton on February 3, 1999. This Executive Order requires federal agencies to prevent the introduction of invasive species, provide for their control, and to minimize the economic, ecological, and human health impacts that invasive species have the potential to cause. The following Sections provide information about Cooperative Energy’s ongoing and future efforts to ensure the project will not introduce invasive species into the George County area and project area. Cooperative Energy has employees on staff devoted to eradicating invasive species within the Cooperative’s transmission facilities, ROWs, and associated assets to control invasive species to prevent adverse effects to economic, ecological, and human health impacts.

Mississippi has numerous invasive species within its boundaries. These include the feral hog, silver carp, cogongrass, kudzu, and the Chinese Tallow Tree.^[19, 20] The feral hog can damage crops, levees, and spread disease. The silver carp can be a nuisance for boaters and fisherman, while reducing the native aquatic species’ natural sustenance resources. Cogongrass can replace native vegetation and be difficult to eradicate. The vine Kudzu will overtake unmanaged wooded areas. This Kudzu growth can reduce available sunlight to the native vegetation, hampering photosynthesis resulting in retarded growth and eventual demise of native vegetation if left unchecked. Chinese Tallow Tree can grow rapidly and reproduce quickly, outcompeting other trees for light, disrupting local ecosystems and lowering levels of native plant biodiversity.

Because the project area will occupy a terrestrial landscape, it is possible this area could have the vegetative invasive species present. The feral hog could occupy the project area. The project will span, with overhead electric transmission conductor, all streams and rivers. Due to this, the silver carp, an aquatic species, would not be affected by the project.

3.5.5.1 Affected Environment

The reconstruction, operation, and maintenance occurring at the project would not result in the loss of or the creation of habitat for invasive species in the area. The areas within the project area that might provide habitat for invasive terrestrial species will remain mostly unaltered. This is due to the project occurring with the existing transmission line ROW. The project would have temporary impacts on the terrestrial habitat that include human presence, noise levels due to the presence and use of construction equipment, wood matting use to protect wetlands and Site 22Ge512 (addressed in Section 3.4 of this EA), and transportation. These temporary impacts could affect the environment but should have no positive or negative effect on invasive species.

The areas within the project area that might provide habitat for invasive aquatic species will remain unaltered. These areas include the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek. These waterways could provide habitat for aquatic invasive species.

3.5.5.2 Environmental Consequences

The potential effect of the project to introduce, spread, or contribute to the existence of invasive species is miniscule. The project ingress / egress access points are pre-existing and were established decades ago. These access points are managed with the same diligence as the existing ROWs for Lines 71, 72, & 73. Cooperative Energy has a Transmission Field Biologist on staff that manages the condition of all Cooperative Energy transmission line ROWs, access points, and associated facilities with respect to vegetation control, gopher tortoise protection, invasive species eradication, and landowner (easement agreement participants) relations. The Transmission Field Biologist has a team of typically three ROW Inspectors that work in the field reporting and correcting adverse conditions with a ROW or ingress / egress area. Because the project has been managed ROW for decades and will continue to be managed with respect to vegetation condition and invasive species eradication, the project is expected to have no environmental consequences that would contribute to the introduction, spread, or the continued existence of invasive species

3.5.5.3 Mitigation

Reconstructing the overhead electric transmission lines in existing ROW is itself a form of mitigation. This is because the landscape, trees and vegetation, waterways and other features in the project area will not be altered permanently. No new ROW will be necessary or created for the project. After construction is complete, disturbed areas would be stabilized with native vegetation and/or revegetated as needed.

Cooperative Energy's Field Biologist and ROW Inspectors will continue to report and remedy the presence of any invasive species through eradication. The most frequently encountered invasive species within a typical Cooperative Energy transmission line ROW in George County is cogongrass. The use of herbicides, as discussed in Section 3.5.1 of this EA, will be deployed to eradicate cogongrass or any other invasive noxious weed or non-native vegetative species before, during, and after construction of the project.

3.6 Water Resources

3.6.1 Water Quantity

The project will be the reconstruction of overhead electric transmission Lines 71, 72, & 73 in the area that contains the Pascagoula River Watershed. The Pascagoula River Watershed is Mississippi's second largest basin draining an area of about 9,600 square miles before emptying into the Gulf of Mexico. Major streams include the Pascagoula, Leaf, and Chickasawhay Rivers, as well as Black and Red Creeks. The Pascagoula River System is the last unregulated major river system in the lower 48 states. The project area occurs within this watershed, and therefore includes numerous waterways, as listed above and as listed here: Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Blue Spring Branch, and Rocky Creek.

According to the most recent available Pascagoula River Basin Status Report, the river basin is 9,600 square miles in size.^[21] The project area is 359 acres in size or 0.56 square miles. The project area therefore occupies approximately 0.0058% of the Pascagoula River Basin's physical area. The Pascagoula River Basin contains 15,045 miles of streams per the Pascagoula River Basin Status Report. There are eight (8) sub-basins within the Pascagoula River Basin. These sub-basins are Chunky-

Okatibbee, Upper Chickasawhay, Lower Chickasawhay, Upper Leaf, Lower Leaf, Pascagoula, Black-Red, and the Escatawpa. The Pascagoula River Basin contains the following reservoirs and lakes: Okatibbee Reservoir (3800 acres), Bogue Homa (1200 acres), Flint Creek (600 acres), Little Black Creek (600 acres), Archusa Creek (450 acres), Maynor Creek (450 acres), Turkey Creek (250 acres), Big Creek (150 acres), Dry Creek (150 acres), and Lake Perry (125 acres).

3.6.1.1 Affected Environment

The United States Environmental Protection Agency's (EPA) Sole Source Aquifers interactive map illustrates that the project area is not located within a sole source aquifer resource.^[22] The project will not affect any sole source aquifer. The nearest sole source aquifer resource to the project is approximately sixty-three (63) miles to the west at the Louisiana State Line. See I for map of project Area in relation to the nearest sole source aquifer.

NEPAssist's Water Features was used to determine that Transmission Lines 71, 72, & 73 all traverse water resources, all of which are streams. The water features / streams that will be traversed are the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek and their associated tributaries.

The project will traverse the following Ecoregions of the State of Mississippi in George County: Southeastern Plains sub-ecoregions of Southeastern Floodplains & Low Terraces and Southern Pine Plains and Hill; Southern Coastal Plains sub-ecoregion of Flood Plains and Low Terraces.

The location of water resources in relation to the area affected by the proposal will be contained in the existing ROW of Lines 71, 72, & 73. The majority of water resources in the project area are Freshwater Forested/Shrub Wetlands. The Freshwater Forested/Shrub Wetlands, as seen on the NEPAssist Wetlands Map, are associated with the Pascagoula River and other freshwater streams, creeks, and branches.

The location of the water resources in relation to the area affected by the proposal are directly related to the areas adjacent to the drainage features of the topography. Specifically, the topographic drainage features are the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek and their associated tributaries. Because the overhead electric transmission line conductor will be hung approximately 55 to 110 feet high depending on the topography, terrain, linear resource crossings, and other factors, the water resources present in the project area will not be lost or converted, with the exception of the small areas that transmission line poles would be placed into the ground. The size of an area a pole would impact would be less than 0.0023 acres of earth. Furthermore, the average span length between transmission line poles would be an average of approximately seven hundred (700) feet. Because of this, the placement of poles can usually avoid water resources by spanning them. Meaning many, but not all water resource areas in a typical ROW in George County, Mississippi are less than 700 feet relative to the linear nature of the ROW.

George County is within the Coastal Lowland Aquifer System extending from southern coastal Texas to southeast Alabama, following the Gulf of Mexico. This aquifer system is underlain by the Mississippi Embayment Aquifer System which is a wide-reaching system that encompasses portions of nine states. The Coastal Lowland Aquifer System is divided into five zones of permeability comprised of poorly

consolidated beds of sand and clay that thicken as they extend to the coast. George County, for which the project is proposed to occur in, is within permeable zone C, where deposits are composed of lower Pliocene to upper Miocene deposits and are less than 1,000 feet deep.^[23] Miocene aquifers are a very prolific source of ground water. Aquifer test results have indicated transmissivity values averaging 13,000 ft²/d.^[24] Hydraulic conductivities determined from the tests average 95 ft/d, and specific capacities are as high as (30 gal/min)/ft of drawdown.^[25] Ground water wells in the Miocene typically utilize the upper aquifers of the area of the proposed project because water is abundant at shallow depths. The groundwater in this aquifer system is recharged in higher elevation areas east and west of the Mississippi River, and discharged into lower elevation waterways which flow south toward the Gulf Coast.

Cooperative Energy consulted the Mississippi Department of Environmental Quality (MDEQ) of the proposed action in a letter dated April 27, 2020. This notification included a project description, a project location description, and maps. The MDEQ responded with their letter dated May 6, 2020. See Appendix I Water Resources for details concerning this correspondence. The agency stated they find no expected adverse environmental impact from the construction of the proposed project. The MDEQ has jurisdiction of air, land, water, and geology in the state. MDEQ's programs and initiatives address both water quality and water quantity to protect the state's valuable resources; this includes both surface and ground water.^[27] MDEQ is responsible for dealing with issues related to the water quality of all intrastate, interstate, and coastal waters. The quality of these waters has a profound effect upon the health and welfare of citizens, wildlife, fish, and aquatic life, as well as domestic, agricultural, industrial, and recreational activities.

3.6.1.2 Environmental Consequences

The relative size of the footprint of the project with the abundance of water resources located within the project area and surrounding areas is minuscule. Because the project will not require access, use, water withdrawal permits, or deplete, in any way the water resources in the project area, the surrounding areas, or the Pascagoula River Basin, environmental consequences to the water resource quantities are not expected. No water quality or water quantity degradation is expected as a result of the project. The project is not expected to affect any watershed management plans.

3.6.1.3 Mitigation

Mitigation measures will be implemented during project construction and operation to aid in minimizing potential environmental impacts. Potential mitigation measures include:

- Implementation of proper erosion control measures described by the BMP
- The development and maintenance of BMPs such as:
 - Soil and sediment tracked off the project site and onto the surface of a public roadway, paved area, or sidewalk will be removed by sweeping and/or shoveling the roadway, paved area, or sidewalk surfaces, or by using other similarly effective means of sediment removal as practical
- Silt fence will be used to divert water around disturbed soils and construction materials on the project site as applicable
- Temporary structural BMPs must be removed after the project site is stabilized with a uniform perennial vegetative cover of 70 percent density or more for all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures, as applicable

- Periodic site visits to see that vegetation establishment is satisfactory will occur, however, if sufficient vegetative cover has not been achieved, then additional restoration measures will be implemented such as overseeding, mulching, sodding, or the use of erosion control blankets
- Provide and maintain a 50-foot buffer surrounding wetlands and other WOTUS or provide and maintain a natural buffer that is less than 50-feet and contains additional erosion and sediment controls.

3.6.2 Water Quality

The project will be the reconstruction of overhead electric transmission Lines 71, 72, & 73 in the area that contains the Pascagoula River Watershed. The Pascagoula River Watershed is Mississippi's second largest basin draining an area of about 9,600 square miles before emptying into the Gulf of Mexico. Major streams include the Pascagoula, Leaf, and Chickasawhay Rivers, as well as Black and Red Creeks. The Pascagoula River System is the last unregulated major river system in the lower 48 states. The project area occurs within this watershed, and therefore includes numerous waterways, as listed above and as listed here: Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Blue Spring Branch, and Rocky Creek.

3.6.2.1 Affected Environment

The project area and George County are rural in nature with the exception of the City of Lucedale. Lucedale has a population of just over 3,100 people.^[28] Lucedale is located in the northeastern portion of George County. The project area, specifically the reconstruction of Line 73, is approximately four and one-half (4.5) miles from the Lucedale city limits.

NEPAssist's Water Features was used to determine that Transmission Lines 71, 72, & 73 will traverse and/or be in proximity to Water Discharges (NPDES), Impaired Water Points, Impaired Streams, and Impaired Water Bodies. As detailed in Section 3.6.2.3 Mitigation, BMPs will be implemented to control storm water runoff during construction to reduce or eliminate project activities' potential to impact in any way the water discharge points, impaired water points, impaired streams, and impaired water bodies in the project area. These BMPs include installing silt fencing in the outer boundaries of the project area where the necessity to control drainage, erosion, and storm water velocity to ensure the impaired water features are not exposed to any additional contaminants that could further impair water features and point source discharge receiving waters.

There are two entities in the vicinity of the project area that are permitted to discharge waste waters into surface waters in George County, Mississippi.^[29] The George County Central Elementary School has a National Pollutant Discharge Elimination System Permit (NPDES) #MS0031828. This permit allows point source discharge into an unknown creek that drains into the Big Creek. The approximate location of the point source discharge is latitude 30.858435, longitude -88.697460. The George County Central Elementary School is located approximately four (4) miles east-southeast from the city limits of Lucedale, Mississippi. The Lucedale Publicly Owned Treatment Works has a NPDES permit #MS0044504. This point source discharges into the Big Cedar Creek located approximately at latitude 30.893335, longitude -88.589872. The Lucedale Publicly Owned Treatment Works is located approximately one-quarter (0.25) miles south of the city limits of Lucedale.

There are no known water bodies in the project area used as sources of potable or industrial water.

The location of the water resources in relation to the area affected by the proposal are directly related to the areas adjacent to the drainage features of the topography. Specifically, the topographic drainage features are the Pascagoula River, Garnell Branch, Indian Creek, Sprout Branch, Big Cedar Creek, Little Cedar Creek, Red Creek, Blue Spring Branch, and Rocky Creek and their associated tributaries.

The project area traverses two water bodies listed in the 2020 Mississippi List of Impaired Water Bodies.^[30] The Red Creek is listed as an impaired water body due to adverse pH levels. The location where the project traverses the Red Creek is latitude 30.854624, longitude -88.508909. The Rocky Creek is listed as an impaired water body due to biological impairment. The location where the project traverses the Rocky Creek is latitude 30.899190, longitude -88.517697.

3.6.2.2 Environmental Consequences

The project will not create point source discharges. The project will not contribute to additional water body impairment of the Red Creek. Materials and equipment used during construction activities will not contribute acidity or alkalinity to run off during rain events. Because of this, the pH of rainwater and ultimately storm water runoff that would run into the Red Creek will not be altered by the project. The project will not contribute to additional water body impairment of the Rocky Creek. The project will not install any temporary or permanent lavatories that could create sanitary discharge from a point source. Because of this, the project will not have an effect the biological impairment of the Rocky Creek.

The relative size of the footprint of the project with the abundance of water resources located within the project area and surrounding areas is minuscule. Because the project will not require access, use, water withdrawal permits, or deplete, in any way the water resources in the project area, the surrounding areas, or the Pascagoula River Basin, environmental consequences to the water resource quality is not expected. No water quality or water quantity degradation is expected as a result of the project.

As addressed in Section 3.6.1.1 of this EA, the project area is located in a region which contains the Coastal Lowland Aquifer System. The project will be terrestrial in nature, with shallow augured holes for overhead electric transmission line support structures (poles). Some poles will require guy wire and anchors which penetrate the earth approximately two (2) to four (4) feet. This depth would not have the potential to effect ground water quality. These features will have no impact on water resource quality in the project area.

3.6.2.3 Mitigation

Mitigation measures will be implemented during project construction and operation to aid in minimizing potential environmental impacts. Potential mitigation measures include:

- Implementation of proper erosion control measures described by the BMP
- The development and maintenance of BMPs such as:
- Soil and sediment tracked off the project site and onto the surface of a public roadway, paved area, or sidewalk will be removed by sweeping and/or shoveling the roadway, paved area, or sidewalk surfaces, or by using other similarly effective means of sediment removal as practical

- Silt fence will be used to divert water around disturbed soils and construction materials on the project site as applicable
- Temporary structural BMPs must be removed after the project site is stabilized with a uniform perennial vegetative cover of 70 percent density or more for all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures, as applicable
- Periodic site visits to see that vegetation establishment is satisfactory will occur, however, if sufficient vegetative cover has not been achieved, then additional restoration measures will be implemented such as overseeding, mulching, sodding, or the use of erosion control blankets
- Provide and maintain a 50-foot buffer surrounding wetlands and other WOTUS or provide and maintain a natural buffer that is less than 50-feet and contains additional erosion and sediment controls.

3.7 Coastal Resources (if applicable)

The RUS's Electric and Telecommunications Programs are exempt from the Coastal Zone Management Act.^[31] The project is not located within a Coastal Zone.

3.7.1 Coastal Zone Management Act

This Section is not applicable to the project.

3.7.1.1 Affected Environment

This Section is not applicable to the project.

3.7.1.2 Environmental Consequences

This Section is not applicable to the project.

3.7.1.3 Mitigation

This Section is not applicable to the project.

3.7.2 Coastal Barrier Resources Act

This Section is not applicable to the project.

3.7.2.1 Affected Environment

This Section is not applicable to the project.

3.7.2.2 Environmental Consequences

This Section is not applicable to the project.

3.7.2.3 Mitigation

This Section is not applicable to the project.

3.8 Socioeconomics and Environmental Justice (EJ)

The following sections provide information on population growth trends; population characteristics; and employment and income; effects to humans' lives; minority and low-income populations; and Executive Order 12898, for the Project Area, George County, as well as the State of Mississippi.

3.8.1 Affected Environment

The project location is in George County, Mississippi. The United States Census Bureau's 2020 total population in George County was 24,350.^[32] The population of George County in 2010 was 22,578. George County is primarily rural and experienced growth between 2010 and 2020 of 7.3%. The State of Mississippi population growth was flat. The population of Mississippi in 2010 was 2,967,297, while population in 2020 was 2,961,279.^[33] The growth rate of George County relative to the State of Mississippi from 2000 to 2020 is 5.5% greater than Mississippi's growth rate. This growth rate trend in George County would indicate that electric load growth in the region could increase due to increased need and use of electric power. Mississippi's rate of growth from 2000 through 2020 has increased 3.9%. See Table 1.

Location	Table 1 - Population Trends			Percent Change 2000-2020
	2000	2010	2020	
Mississippi	2,844,658	2,967,297	2,961,279	3.9
George County	19,144	22,578	24,350	21.4

The population characteristics of George County are less diverse compared to the State of Mississippi as shown on Table 2 below.

Table 2 - Population Characteristics

	Mississippi	George County
2020 population	2,961,279	24,350
White	1,643,510	21,255
Black or African American	1,119,363	1,920
Asian	32,574	107
American Indian and Alaskan Native	17,768	200
Native Hawaiian and Other Pacific Islander	2,961	0
Two or more races	38,497	203
Some other race	96,537	152
Hispanic	10,068	413

The employment characteristics of George County are similar to the employment characteristics for the State of Mississippi as shown in Table 3 below.

Table 3 - Employment Characteristics

	Mississippi	George County
Percent population 16 years and over in civilian labor force	56.7	52.3
Percent population 16 years and over in civilian labor force, female	53.4	47.1
Employed	958,126	3,625

George County has a lower rate of persons in poverty relative to the State of Mississippi's poverty rate.

Table 4 - Income Characteristics

	Mississippi	George County
Median household income	\$45,081	\$47,292
Percentage in poverty	19.6	16.6

Executive Order 12898, titled Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations signed by President William J. Clinton and issued in 1994, directs Federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. For the purpose of this analysis, minority is defined as individuals who identify as a race other than white alone (single race) and/or identify their ethnicity as Hispanic or Latino. Low-income is defined as a household income less than or equal to twice the Federal poverty level.

The area was screened for the presence of minority and low-income populations using the EPA EJSCREEN tool.^[34] Portions of the project in west George County where Line 71 is located fall within the 50-60 percentile in the Demographic Index. The project is less than 50 percentile in the People of Color Population. Portions of the project located in western George County where Line 71 is located fall within the 90-95 percentiles in the Low-Income Population. Portions of the project where Line 72 is located fall within the 60 – 70 percentiles in the Low-Income Population. Portions of the project where Line 73 is located fall within the 70 – 80 percentiles in the Low-Income Population. Small portions of the project located where Line 72 traverses the communities of Basin and Agricola fall within the 60-70 and 70-80 percentiles in the Linguistically Isolated category.

It is plausible these values are high, for some portions of the census blocks in or near the Project Area, not due to the racial characteristics of George County, but rather the low-income populations. George County's population is approximately 89.7% white. George County is rural. Because the George County median household income is low compared to the median household income in the United State and because each Demographic Index is based on the average of two demographic indicators: Percent Low-Income and Percent Minority, the Demographic Index percentiles are influenced because of the low-income populations in George County. The median household income in the United States of American is \$62,843, while the median household income in George County is \$47,292.

As seen in Table 5 below, the percent minority population in George County is 10%, while the percent minority in Mississippi is 41% and 24% in the United States.^[35] George County has a much lower percentage of minority populations compared to the rest of the State of Mississippi, 10% vs. 41% respectively. George County also has a lower percentage of minority populations compared to the United States of America, 10% vs. 24% respectively. Due to the low minority population in George County and the project area, especially relative to the minority populations in Mississippi and the United States, the project will have substantially less potential for socioeconomic or environmental justice impacts to a minority population due to its location.

Minority communities in George County will be afforded the opportunity to participate in the NEPA process related to the proposed action during the public comment period. Any concerns raised as a result of minority community participation in the NEPA process will be addressed.

George County and the project area have 17% of its population living in poverty. This percentage of persons living in poverty in the project area is less, compared to the population of Mississippians in general. 20% of Mississippians live in poverty. Mississippi has the highest rate of poverty and low-income populations of all fifty (50) states in the United States.

Table 5 - Minority and Low-Income Populations near the Project

Geographic Area	Minority population (percent)	Persons in poverty (percent)
United States	24	11
Mississippi	41	20
George County	10	17

See [Appendix J](#) for United States Census Bureau Fact Sheets and EPA EJSCREEN tool maps for George County and Mississippi.

3.8.2 Environmental Consequences

The project will traverse much of George County, as described in Section 1.1 of this EA. George County is rural. Agriculture is a common means of income in the project area. The project area is 89.7% white. The project is the reconstruction of existing overhead electric transmission lines 71, 72, & 73. The reconstruction will occur within the existing ROWs of Lines 71, 72, & 73. The project will not change

the landscape or aesthetic qualities of George County. Likewise, the project will not have an affect or alter any minority populations or low-income populations. These populations are expected to continue living their lives in George County and the project area in the same way they currently exist. The Project should have no impacts on typical human activities such as education, recreation, commerce, health care, employment, worship, travel, communication, agriculture, landscaping, hunting & fishing, or funeral services. The low-income population should expect to see no impacts of the project on their income status, ability to increase personal wealth, or their ability to seek assistance from any local, regional, state, or federal outreach programs that could provide assistance to their plight. Because the project will not permanently change people's lives beyond the immediate provision of a service or facility, the project is expected to have no environmental consequences relating to environmental justice, socioeconomic impacts, or the treatment of humans in the project area.

Line 71 traverses no commercial areas. Line 71 does traverse a small area of rural residential near the community of Basin. Line 72 traverses rural residential and a small area with commercial businesses as it traverses Highway 63. Line 72 traverses Highway 613 just south of the Agricola Elementary School, a public facility. Line 72 also is located near commercial areas as it traverses Highway 613 in the town of Agricola. Line 73 traverses rural residential areas and commercial areas as it traverses Highway 612. Line 73 traverses rural residential areas north of Agricola also. Line 73 traverses commercial, residential, and public areas in the area of U.S. Highway 98 near its northern terminus. None of the project falls in proximity to key transportation facilities. Because the project will reconstruct Lines 71, 72, & 73, the areas described above will not see any permanent changes to their conditions as a result of the proposal. The areas described above will also see no permanent changes to traffic patterns or traffic intensity, risk of accidents, or any other disruptions such as noise. The project might have the potential to temporarily affect traffic, risk of accidents, and noise during the construction phase. But, given the large number of agricultural activities that currently take place in the project area, the potential to affect these factors temporarily could be minimal. And the potential to temporarily affect these factors should have no environmental consequences on the population within the project area with respect to environmental justice or socioeconomic conditions.

The small number of individual businesses located in proximity to the project area should not expect their level of commerce to be affected by the proposal. It is possible that the individual businesses could experience a temporary increase in commerce as construction workers associated with the project frequent these individual businesses.

The Line 73 portion of the project does traverse what could be considered a business district near U.S. Highway 98. This area should not expect their level of commerce to be affected by the proposal.

Executive Order 12898 (EO) signed into effect on February 11, 1994 is titled, Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations. This EO requires federal agencies to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands. RUS will complete and certify RD Form 2006-38. Form 2006-38 will certify that no major EJ or civil rights impact is likely to result if the proposal is implemented.

3.8.3 Mitigation

Based on the low percentage of minority populations within the project area and the social analysis thereof, the necessity to provide mitigation for any potential impacts to environmental justice is negated. Because the low-income population is expected to see no impacts of the proposal to their income status or way of life and based on the social analysis thereof, the necessity to provide mitigation for any potential impacts to environmental justice is negated.

If during the public comment period, any environmental justice and/or socioeconomic issues are raised, Cooperative Energy will respond accordingly to mitigate and accommodate any concerns any population(s) or individual(s) may have.

3.9 Air Quality

According to the EPA assessment of air quality attainment status (40 CFR Part 81), the existing transmission line and stations are in counties that are in attainment for all criteria pollutants.^[36] The state of Mississippi has adopted the National Ambient Air Quality Standards. The Breton National Wildlife Refuge, located on the coast of Mississippi within the Gulf of Mexico, is the only Prevention of Significant Deterioration (PSD) Class I Area located within 300 kilometers of the project. At its nearest point, the refuge is located approximately 84 kilometers south-southwest of the project.

Non-industrial primary pollutants in the area may include particulates (i.e., dust) generated from farming, traffic on unpaved roads, wind erosion, and smoke from burning trash or ground cover. These sources produce pollution that is temporary and intermittent. The only known source of industrial air releases in the area is the existing Cooperative Energy Benndale Peaking Station, located in George County.^[29] This facility is located approximately one (1) mile to the north-northwest of the northwest terminus of the project, specifically the northwest terminus of Line 71. This facility has two (2) 11.4 Megawatt (MW)/15,288 horsepower (hp) four-stroke, lean burn (4SLB) natural gas fired, nonemergency reciprocating engines. Emissions from these units are controlled using Selective Catalytic Reduction (SCR) and an Oxidation Catalyst. This peaking facility generates electric power, 22.8 Megawatts gross, that is transmitted through overhead electric transmission lines to various transmission and distribution substations in the area. The facility has a Synthetic Minor Source Permit to Operate Air Emissions Equipment, permit number 0840-00014. Permit number 0840-00014 expires on July 31, 2026. This permit to operate was issued by the MDEQ on August 30, 2021.

3.9.1 Affected Environment

The purpose of the proposed project is to rebuild the overhead 69kV transmission line system to improve the reliability due to increased load in the area for Cooperative Energy as well as for the number of aging wood poles nearing the end of their life span (these are less than 50 years old). The project is divided into three contiguous sections. Line 71 measures 11.9 miles (19.2 km); Line 72 runs for 9 miles (14.5 km); and Line 73 measures 8 miles (13 km) in length, approximately. The right-of-way (ROW) is 100 ft (30.48 m) wide. Acreage for the three lines is: Line 71 - 144.8 acres (58.6 hectares [ha]); Line 72 - 109.9 acres (44.47 ha); Line 73 - 92.2 acres (37.3 ha) for a total of 346.9 acres (140.4 ha).

NEPAssist's Nonattainment Areas and Air Pollution Layer was used to determine that Transmission Lines 71, 72, & 73 proximity to areas in which air quality is in a state of degradation. The NEPAssist Map shows three (3) areas where air quality could be recognized as having air pollution. These areas are not

in or adjacent to the proposed project area. Because of this, the proposed activity should have little to no impacts on these areas recognized as being affected by air pollution.

Cooperative Energy consulted the Mississippi Department of Environmental Quality (MDEQ) of the proposed action in a letter dated April 27, 2020. This notification included a project description, a project location description, and maps. The MDEQ responded with their letter dated May 6, 2020. See Appendix K Air Quality for details concerning this correspondence. The agency stated they find no expected adverse environmental impact from the construction of the proposed project. The MDEQ has jurisdiction of air, land, water, and geology in the state. MDEQ's programs and initiatives address air quality to protect the state's valuable resources.

The land in the project area is currently occupied by overhead electric transmission lines and ROW, pine forest, unmanaged hardwood forest, agricultural pasture, agricultural row crop, rural residential, some commercial businesses, and electric distribution lines.

3.9.2 Environmental Consequences

During construction, exhaust emissions, fugitive dust, and other construction-related emissions would occur. However, these increases would be temporary in nature and cease when construction is complete. As such, these emissions are not anticipated to substantially impact the overall air quality in the region.

Air quality modeling for the project is not necessary to meet any local, state, or federal requirement. Therefore, none of the NAAQS or PSD Class I areas or Class II area increment standards will be impacted by the project.

The project is not expected to result in the creation of any atypical odors in George County.

3.9.3 Mitigation

In areas where bare soil is exposed, water or other dust palliatives must be applied to the soil to limit wind erosion to control fugitive dust. All mechanical equipment for construction and facility operation will be maintained in good working order. No open burning of cleared vegetation will occur. Because the project will occur on previously cleared land, exposed soil associated with the project will be minimal.

3.10 Noise

The following Sections will provide information addressing

3.10.1 Affected Environment

The project is in a rural setting. Widely scattered residences are in the vicinity of the proposed transmission lines, and substation / switching station areas. The forest cover provides buffering between the project and the surrounding areas, in most areas. Primary sources of noise in the area include the existing facilities, traffic on nearby roads, nearby rail roads, farm equipment, elementary school, residential noise sources, and other industrial sources just north of the project. Based on aerial review of the project, several residences are near the transmission lines. Several other structures are within 500 feet of the transmission line. No residences, businesses, or other structures are allowed or would be allowed in the transmission line ROW.

3.10.2 Environmental Consequences

The two main types of anticipated sound associated with the facilities - construction sounds associated with the project and the operational sounds of the facilities. Construction-related sounds would vary in intensity and duration and would not be permanent. Sound from construction would emanate primarily from the use of heavy construction equipment and truck traffic on local roads. Construction sound generally would be generated on weekdays during daylight hours and would be minimized by using equipment and vehicles with properly functioning mufflers. Minor temporary disturbances to wildlife and nearby livestock could occur. While some wildlife may temporarily leave the vicinity of the project, it is not anticipated that there would be any long-term sound effects on wildlife and livestock resulting from construction. Additionally, the anticipated short-term construction sounds would not result in long-term impacts to the residences and businesses located near the project.

Operational sounds could occur while the transmission lines are in operation and are less fluctuating than construction sound, but these should be mostly inaudible. As the transmission lines are currently in operation, sound levels from the Project's operation would not increase over current ambient sound levels. George County as well as the City of Lucedale do not limit sound levels in decibels in the county's / city's planning and zoning ordinances.

Construction of the project would result in minor and temporary noise within the Facility sites and to the surrounding area. The noise impacts resulting from construction would be short-term. Decibel levels during project activities are expected not to exceed 90 decibels. The expected highest decibel levels would occur during auger drill rig operation. Noise levels could fluctuate during construction as various equipment operates and activities occur. No considerable adverse noise effects would be expected as a result of implementation of the project.

3.10.3 Mitigation

All mechanical equipment for construction and facility operation will be maintained in good working order. Properly functioning mufflers will be used on appropriate heavy equipment. Since George County does not have numerical decibel noise limits in the Zoning and Planning Ordinances, it is not recommended that the project sound levels be evaluated to verify that the reconstruction of the project will not result in noise impacts. The project will be constructed during daylight hours, so any noise associated with the project activities will cease during nighttime hours. Cooperative Energy will work with any concerned entity to determine if any actions need to be taken to avoid adverse noise impacts, as and if such impacts arise.

3.11 Transportation

Existing transportation infrastructure near the project and potential impacts to transportation are discussed in the following sections.

3.11.1 Affected Environment

The project area contains an existing network of paved and gravel roads. The project area includes several thoroughfares in Mississippi, State Routes 26, 63, 613, & 612 and U.S. Highway 98. The project traverses a railroad in Agricola and south of Lucedale, Mississippi. The nearest public use airport to any part of the project is in the Agricola area, the South Mississippi Light Aircraft Airport, located

approximately ten (10) miles northwest of the town of Agricola, Mississippi and seven (7) miles northwest of the City of Lucedale, Mississippi. This air facility has a natural turf runway / airstrip. This air facility is not located within the project area.

The Federal Aviation Administration (FAA) conducts an aeronautical study or obstacle evaluation for proposed and existing structures for potential impacts to the navigable airspace of public use airports. The FAA does not typically include private use airports in their obstacle evaluation process unless it is owned by the United States military or has instrument procedures approved by the FAA. The FAA applies various imaginary obstruction identification surfaces to evaluate impacts to airports airspace. These surfaces extend outward from the runway edge at specified distances and slope ratios to protect different stages of flight. The dimensions of these surfaces vary based on the airport's runway type and length, the types of aircraft using the airport, and approach and departure operations associated with the runway. Structures that exceed one of these surfaces are studied further to determine the level of potential impact and whether marking and lighting would be necessary to keep the structures from becoming a hazard to flight. Structures that are greater than 500 feet above ground level (agl) are considered an obstacle to airspace regardless of their proximity to an airport. Structures greater than 200 feet agl and are within 3 nautical miles of an airport with at least one runway more than 3,200 feet in length are considered an obstruction. Both such structures require extensive study by the FAA to determine if they would be a hazard to flight. The FAA will request that marking and lighting be added to any structure greater than 200 feet agl to prevent it from being a hazard to flight. Structures that are located in close proximity to communication and navigation facilities, including radars and other equipment used for flight guidance, will require study by the FAA for potential electromagnetic interference. None of the proposed components of the project will exceed any of the above discussed FAA thresholds that could trigger FAA scrutiny.

Applicable road and highway crossing permits will be acquired for portions of the project spanning roads and highways during the transmission design phase of the project from the Mississippi Department of Transportation. Applicable railroad crossing permits will be obtained, if required by railroads, for portions of the project spanning railroads. Any mitigation measures required by the railroad companies during project activities will be implemented and monitored.

3.11.2 Environmental Consequences

During construction of the project, traffic within the immediate vicinity would be impacted. Travel by construction workers and transport of equipment and materials would add to the current traffic volumes on the surrounding roads. In order to minimize interference with commuter traffic near the project, any deliveries should be made during off-peak travel times. Local traffic will likely be impacted the most around the beginning and end of the workday. The Mississippi Department of Transportation and George County will be contacted regarding guidance on any permits or fees associated with potential wear and tear on the public roads utilized during the construction phase of the project, applicable to the project. Cooperative Energy will coordinate with the railroad company to avoid conflicts between rail operations and construction to provide for safe rail and construction activities. Traffic is anticipated to return to levels similar to existing conditions after construction of the project is complete as additional workers, and associated travel, are not anticipated during project operation. No long-term impacts to vehicle traffic or rail are anticipated.

The South Mississippi Light Aircraft airport is classified as a public use facility. This facility is therefore subject to the FAA obstruction evaluation process.

Considering the distance between the airport and the project, it is unlikely that any structures less than 200 feet agl would impact the navigable airspace of these facilities. It is unlikely that all proposed transmission structures associated with the project will require filing a notice to the FAA to conduct an aeronautical study. Considering that there are existing structures of similar type (overhead electric transmission lines 71, 72, & 73) already located near the project, it is unlikely that any new structures will have an impact on this transportation facility.

3.11.3 Mitigation

Major movement of materials or equipment during construction should be during off peak hours of travel to minimize impacts to normal traffic patterns. Any required road repair will be conducted under consultation with the Mississippi Department of Transportation and George County.

Notice to the FAA will not be provided for all structures (including permanent structures and temporary construction equipment) associated with the project because none of the structures exceed the FAA criteria for notification. Based on the distance between the project and the nearest airports and the existing obstacles present, it is unlikely that the FAA will request a height restriction on any proposed structures. However, it should be expected that any structure taller than 200'agl will require an extended study by the FAA and will need to be marked and lighted to minimize the impact to the navigable airspace. None of the new transmission structures will exceed 200' agl within the project.

3.12 Aesthetics

The aesthetics of the project area are discussed in the following sections, as well as potential environmental consequences of the project and proposed mitigation.

3.12.1 Affected Environment

The project area contains wooded undeveloped and low density developed areas. There are no parks, recreation, or designated natural areas near the project, with the exception of the Pascagoula River State WMA. Approximately one and three-tenths (1.3) miles of existing ROW currently exist in the Pascagoula River State WMA. This approximate one and three-tenths (1.3) miles of ROW in the Pascagoula River State WMA is where Line 71 currently transmits bulk power. The topography in the area of the project is rugged upland interspersed with many narrow stream valleys with forested land and farmland, with several ponds and riparian areas along nearby streams. Trees obstruct many of the views from and of the existing transmission lines. Existing security and safety lighting at the substations and switching stations Lines 71, 72, & 73 ingress & egress, creates a visual contrast at night. The facilities can create noise that may be audible in the rural environment. Man-made features in the project area include the existing transmission facilities/stations, rural residential, gas pipeline ROWs, mixed agriculture, overhead transmission and distribution lines, a Mississippi Export railroad, U.S. Highway 98, and state highways and roads. There is fencing along the perimeter of the substation facilities. These substation facilities are adjacent to the project. No visually sensitive or designated scenic areas are in the project area.

3.12.2 Environmental Consequences

At the existing facilities, the aesthetics of the area will largely remain the same as the rebuild components will be installed within the existing ROW property and will be very similar in dimensions and location. Lighting already in place for the existing sites would be retained and no additional lighting is anticipated. Noise from the project should be similar to that of the existing transmission lines. No parks are located near the project; therefore, none would be affected by the project. Due to this, impacts to aesthetics within the project footprint are anticipated to be minimal if not negligible.

Limiting the existing transmission line changes to the existing ROW footprint and areas of existing infrastructure minimizes the visual contrast of the new facilities to the landscape, which already contains all these types of visual elements. Due to this, the new visual contrast, construction noise, and temporary increase in traffic is anticipated to be minor and would be a minor aspect of the overall vista of the area.

3.12.3 Mitigation

The ROW would be revegetated, if necessary, as soon as practicable with non-invasive grass species. Existing vegetation outside the ROW, substation areas, and switching station boundaries will be left intact to reduce visibility of the project and provide screening. During construction, work areas would be maintained in an orderly manner and trash and construction debris removed to help avoid unsightly areas. All disturbed areas would be restored as soon as practicable. Disturbance would be limited to those areas necessary for construction, limiting clearing and ground disturbance.

3.13 Human Health and Safety

Human health and safety information in the project area and environmental consequences of the project are discussed in the following sections.

3.13.1 Electromagnetic Fields and Interference (if applicable)

The nearest medical facility to the project is George Regional Hospital in Lucedale, approximately four and four-tenths (4.4) miles west of the eastern terminus of the project, specifically Line 73's most northern location. The George County Sheriff's Department, also located in Lucedale, provides public safety. The closest fire protection is provided by the Lucedale Fire Department and the Benndale Volunteer Fire Department.

Electromagnetic fields (EMF) are generated by electronically charged objects. Electric fields result from differences in voltage, while magnetic fields are created by electric current flows. A higher voltage creates a stronger electric field. A greater current of electric flow creates a stronger magnetic field.^[37] EMF is produced by natural sources (such as build-up of electric charges from thunderstorms in the atmosphere) and human sources (such as household electronics, X-rays, and electric generation and transmission facilities).

The strength of EMF is strongest closest to the source and rapidly decreases in strength the farther one is from the source.^[37] The National Institute of Environmental Health Sciences and National Institutes of Health prepared a Questions and Answers paper on Electric and Magnetic Fields Associated with the Use of Electric Power. The document indicated that at 50 feet from the centerline of a 69 - 230kV transmission line, a typical electric field is 1.5 kilovolt per meter (kV/m) and the typical magnetic field is 19.5 milligauss (mG). Both levels are lower than the recommended amount for the general public, as

presented by the International Commission on Non-Ionizing Radiation Protection (2010), which are 4.6 kV/m for electric fields and 833 mG for magnetic fields.^[37]

3.13.1.1 Affected Environment

The following sections provide potential environmental consequences of the project and addresses the affected environment related to human health and safety in the project area.

3.13.1.2 Environmental Consequences

Project construction poses risks for potential health and safety hazards for construction personnel through the operation of heavy equipment, the use of tools during construction, and working in an active construction site. These hazards would be mitigated by compliance with all applicable Federal and State occupational safety and health standards, National Electric Safety Code (NESC) regulations, and utility design and safety standards.

Cooperative Energy will develop a Health and Safety Plan to address public and worker safety during the construction and operation of the project. The Health and Safety Plan would identify any requirements for minimum construction or operation distances from residences or businesses, as well as requirements for temporary fencing around staging, excavation, and laydown areas during construction. The plan would also include provisions for worker protection as is required under Occupational Safety and Health Administration (OSHA) CFR1926. During construction, all employees, contractors, and sub-contractors would be required to adhere to OSHA safety procedures, which will be taught in a mandatory training for all construction works on site. All heavy equipment would be up to OSHA safety standards and personal safety equipment would be required for all workers on site. Any accidents or incidents would be reported to the designated safety officer.

During construction there is a risk of accidental fires being started by human activities such as refueling heavy equipment or the use of vehicles in dry vegetated areas. The Health and Safety Plan will have procedures in place to address and restrict the various activities that have a fire-related risk. A fire-suppression system will be incorporated into project design. The project will implement industry-approved design measures to reduce fire-related risks.

Construction and operation of the project could also involve the storage of very minimal amounts of hazardous and regulated materials, which could accidentally leak or spill on site. All potentially hazardous material will be collected by a licensed/permitted recycler. In order to reduce the risk releasing hazardous materials during construction, all work would be in accordance with OSHA standards and protocols, along with any other applicable Federal and State environmental regulations. If a hazardous material were to be accidentally released during construction, all activities involved with the cleanup, management, and disposal of contaminated soils would occur in conjunction with EPA and State standards, which reduces the potential for significant impacts resulting from the release of hazardous materials.

All construction sites will be managed to reduce risks to the general public. The general public will not be allowed in any construction areas associated with the project. Increased traffic on local roads during construction would slightly increase the risk of traffic accidents to the general public. Increased traffic is anticipated to be short-term in nature and will return to current levels during operation of the project.

EMF is the strongest under transmission lines and decreases with increasing distance from the transmission line ROW. As previously discussed, EMF levels at 50 feet from a 69kV transmission line are below the published guidelines of the International Commission on Non-Ionizing Radiation Protection. No residences, businesses, or other structures would be allowed in the transmission line ROW. Therefore, any EMF from the proposed transmission line will be lower than the recommended limit for the general public.

3.13.1.3 Mitigation

Cooperative Energy will comply with all applicable Federal and State occupational safety and health standards, NESC regulations, and utility design and safety standards. Cooperative Energy will develop a Health and Safety Plan to address public and worker safety during the construction and operation of the project. The Health and Safety Plan would identify any requirements for minimum construction or operation distances from residences or businesses, as well as requirements for temporary fencing around staging, excavation, and laydown areas during construction. The plan would also include provisions for worker protection as is required under OSHA CFR1926. During construction, all employees, contractors, and sub-contractors would be required to adhere to OSHA safety procedures, which will be taught in a mandatory training for all construction works on site. All heavy equipment would be maintained to OSHA safety standards and personal safety equipment would be required for all workers on site. Any accidents or incidents would be reported to the designated safety officer.

3.13.2 Environmental Risk Management

The following sections provide information on Environmental Risk Management for the project. It is important to note that the project will not require a single real estate transaction. This is because the project is the reconstruction of existing overhead electric transmission lines 71, 72, & 73 in their existing ROW. ROW easements and real estate transactions for the project area occurred in the late 1960's and early 1970's prior to the original clearing of Transmission Lines 71, 72, & 73 and the original construction of these overhead electric transmission lines.

3.13.2.1 Affected Environment

The land in the project area is currently occupied by overhead electric transmission lines and ROW. The project will reconstruct overhead electric transmission lines 71, 72, & 73 in their existing ROW. The land in the project area also includes pine forest, unmanaged hardwood forest, agricultural pasture, agricultural row crop, rural residential, some commercial businesses, and electric distribution lines.

NEPAssist was used to determine if any potential environmental risk management impacts could affect the proposed activity. Four areas listed as having hazardous waste and one area listed as a brownfield site are in proximity to the proposed project but are not in or adjacent to the project footprint. Because of this and because the proposed action will not require any real estate transactions, the areas identified by NEPAssist concerning environmental risk management would not impact the proposed project or its construction and implementation.

3.13.2.2 Environmental Consequences

The proposed site will not contain hazardous materials. The wooden poles that will be removed during the construction of the project will be removed by sawing the pole at ground level, loaded on flatbeds,

and removed from the construction site. These poles will be sold to various, typically local, entities, as opposed to landfilled or stockpiled. Because the proposed project area has been managed ROW for decades, the presence of lead-based paints, asbestos, or mold is highly unlikely.

Because the proposed project area contains mostly soil and organic materials commonly found in forest and pastures, and because of the conclusions discussed above, the management of environmental risks for the proposed project will be unnecessary.

Because the proposed project area has been managed ROW and recent onsite visits and field surveys have not discovered any signs of contamination liabilities, we deem a Phase I Environmental Site Assessment to be unnecessary. The Cooperative deems the environmental condition of the proposed project site to pose no environmental risks to the environment or humans. Therefore, there is no expectation of environmental consequences regarding Environmental Risk Management.

3.13.2.3 Mitigation

The current condition of the project area is typical native grasses and shrubs that take advantage of cleared areas in a humid subtropical climate. As documented in this EA and enclosed in its appendices, recent field surveys for threatened & endangered species and a Phase I cultural resources survey found the presence of no abnormal or unexpected hazardous materials, substances or wastes, or materials required for the operation of the proposed activity that would jeopardize any aspect of the Project's real estate transactions, easement status, or land values. Due to this, no mitigation plans are currently necessary with respect to Environmental Risk Management. If any materials or risks associated with Environmental Risk Management become present during project activities, Cooperative Energy will immediately mitigate as required. Cooperative Energy has a contract with a local environmental services entity that can mobilize rapidly to contain, clean, properly dispose of, and mitigate any such situation, if necessary.

3.14 Corridor Analysis (if applicable)

The objective of a corridor analysis is to identify potential corridors within which transmission lines could be sited. The purpose of a corridor study is to identify areas that appear suitable for siting transmission facilities based on regulatory, environmental, engineering, and economic constraints.^[38] Such a study is conducted to determine what potential transmission line routing options are available for a particular line, and in general terms, how those options might be planned to avoid potential environmental, social, cultural, and economic effects in order to avoid or minimize problems, impacts, delays, and unnecessary expense in development of the proposed project.

The project will reconstruct three existing overhead electric 69kV transmission lines by Cooperative Energy in George County in existing corridor (ROW). These transmission lines include: Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek).

3.14.1 Affected Environment

Transmission Lines 71, 72, & 73 and their corridors were sited, developed, designed, cleared, and constructed approximately fifty +/- (50) years ago in the rural setting of George County Mississippi.

3.14.2 Environmental Consequences

Transmission lines 71, 72, & 73 and their corridors were sited before many of the environmental regulations addressed in this EA were promulgated. The proposed project to rebuild transmission lines 71, 72, & 73 will not alter the project area as it has existed for approximately 50-years.

3.14.3 Mitigation

Because the corridors for transmission lines 71, 72, & 73 were previously sited and cleared in the late 1960's and early 1970's, the ability to identify areas that appear suitable for siting transmission facilities based on regulatory, environmental, engineering, and economic constraints is negated and unviable.

4.0 Cumulative Effects

This chapter lists the past, present, and reasonably foreseeable future actions (RFFAs) in the project area that may affect the resources analyzed in this EA. An assessment of cumulative effects of the project for each resource is provided as well. The CEQ regulations implementing NEPA defines cumulative impacts as, “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such action.” (40 CFR §1508.7)^[39]

Past, present, and RFFAs that have affected the resources of George County include:

- Construction of the existing substations, switching stations, ROW, and transmission lines
- Past residential and business development in the surrounding area
- Past other infrastructure construction in the surrounding area
- Agriculture
- Farming
- Forest management

The following sections provide anticipated cumulative impacts by resource. Table 6 provides a summary of cumulative impacts.

Table 6 - Cumulative Impacts

Resource	Cumulative Impacts	Contribution of Proposed Project to Cumulative Effects
Aesthetics	Minimal removal of vegetation; temporarily increased construction traffic and noise	Minor
Air quality	Emissions from vehicles/equipment used during construction	Minor. No exceedances of the NAAQS or PSD increment expected
Biological resources/Threatened & Endangered (T&E) Species/Migratory Bird Act/Bald & Golden Eagle Act	Minimal removal of vegetation/habitat; temporary displacement of wildlife during construction due to increased traffic and noise; potential mortality to wildlife individuals; no adverse impacts to T&E species; no impacts to migratory birds; no impacts to Bald & Golden Eagles	Minor; wildlife displacement would be temporary, habitat loss minimal compared to overall available, migratory birds, including Bald & Golden Eagles, have thrived in Project Area since original construction of Lines 71, 72, & 73 and are expected to continue to thrive.
Corridor Analysis	Corridor sited approximately 50-years ago	Negligible

Resource	Cumulative Impacts	Contribution of Proposed Project to Cumulative Effects
Cultural resources	Potential risk if site of archaeological, historical, or tribal value that is listed or eligible for listing on the NRHP cannot be avoided or mitigated	None anticipated. Surveys identified sites. Mitigation to avoid impacts during construction will be implemented.
Human health and safety including EMF and Environmental Risk Management	Potential risks to human health and safety during construction and operation; Public not allowed in ROW to protect from EMF; No risk to real estate transactions because unnecessary	Minor to no contribution with the implementation of applicable safety and health standards
Land use/Important Farmland/ Formally Classified Lands	Minimal, no clearing of wooded areas and no conversion to open grassland; Important Farmland exempt; Formally Classified Lands unaltered	Minor with implementation, monitoring, and maintenance of BMPs. Changes consistent with existing land uses.
Noise	Temporary increases in noise levels during construction. Not anticipated that the noise levels from reconstruction would change considerably from those during normal operation of existing transmission lines	No considerable change or adverse cumulative noise effect anticipated
Socioeconomics and Environmental Justice	Minimal potential for increased local business during construction due to construction workers onsite and use of local goods, materials, and services. Temporary increases in traffic during construction. No change to minorities (low population in George Co.) or low-income current or future status	Minor
Transportation	Temporary increases in traffic during construction	Minor, temporary
Water Resources including Wetlands & Floodplains	Potentially jurisdictional wetland areas and floodplain within proposed ROW. These features can often be spanned by transmission lines. No impacts to aquifers or water bodies; no sole source aquifers in area; poles allow the free flow of flood waters	Minor with implementation, monitoring, and maintenance of BMPs. The Corps has issued NWP 12 permit (replaced by NWP 57)

Aesthetics: The landscape of George County has been altered by residential and business development; agriculture; infrastructure construction, and forest management. The reconstruction of the transmission lines will not remove the existing Facility infrastructure from the viewshed.

Minimal impacts to aesthetics are anticipated due to reconstruction of the transmission lines and the construction equipment within the existing Facility footprint. As such, the project components within the Facility footprint will not significantly contribute cumulatively to past, present, and RFFA impacts to aesthetics in the area.

The existing features in the landscape would primarily be visible by the general public at road crossings, railroad crossings, and where no trees obstruct visibility. Minimal clearing would be limited to only that required for construction and safe operation of the facilities. Existing vegetation outside the ROW, and in the substation / switching station areas, would reduce visibility of the project. Limiting Facility changes to the existing Facility footprint and areas of existing infrastructure minimizes the visual contrast of the new facilities to the landscape, which already contains all these types of visual elements. Due to this, the new visual contrast, construction noise, and temporary increase in traffic is anticipated to be minor, if not the same and would be a minor, if not the same, aspect of the overall vista of the area. The project would not cumulatively adversely contribute to aesthetics of George County.

Air Quality: Previous activities in the project area that have impacted air quality include construction activities associated with residential and business development; infrastructure, agriculture; and forest management activities. The reconstruction of the existing transmission line facilities will contribute to vehicle emissions within the area as well. These construction activities are anticipated to be intermittent and temporary in nature, ceasing after construction for these RFFAs is complete.

During construction of the project, exhaust emissions, fugitive dust, and other construction-related emissions would occur. However, these increases would be temporary in nature and cease when construction is complete. As such, these emissions are not anticipated to substantially impact the overall air quality in the region, and no cumulative impacts to air quality would occur as a result of construction activities.

No other industrial projects are known in the project area. Thus, the project will not contribute to the cumulative degradation of air quality in the area.

Biological Resources: Other past, present, and RFFAs that may have affected the listed species and their habitats in the region include residential and business development, particularly near Lucedale, Agricola, and Benndale; agriculture and forest management, including the replacement of many native forests with slash and loblolly pine plantations; pipeline construction; and upgrades to existing infrastructure. No other known RFFAs are planned that would affect large acreages of natural vegetation. During agency scoping, Mississippi's Department of Wildlife, Fisheries, and Parks stated that the proposed project likely poses no threat or adverse effects to listed species or their habitats if BMPs are properly implemented, monitored, and maintained. Cooperative Energy will implement, monitor, and maintain BMPs for the project. Therefore, no significant impacts to listed species and their habitats are anticipated during the project. As such, no adverse cumulative effects to protected species are expected from construction or operation of the project.

The project will not require clearing of vegetated areas along the transmission line routes and adjacent to existing substation areas. Wildlife species may be temporarily displaced from the area due to increased traffic and noise during construction. The risk for vehicle collisions with wildlife is increased as well during construction. No permanent impacts to wildlife during the construction and maintenance of

the project will occur for wildlife currently utilizing the existing ROW. Due to this, cumulative effects on biological resources are not considered significant.

Cultural Resources: Other past, present, and RFFAs that may have affected the cultural resources in the region include residential and business development; transmission and distribution power lines, agriculture, and forest management; natural gas pipelines; and the infrastructure. As described in Section 3.4, no NRHP-listed buildings or districts are located within the Study Area. One NRHP site (Bilbo Basin Shell Deposit) is located within the Study Area. The project poses a risk to cultural resources if a site of archaeological, historical, or tribal value that is eligible for listing on the NRHP cannot be avoided or mitigated during siting, construction, and continued maintenance of the Proposed Action. Based on recommendations from TerraXplorations, Inc. known cultural resources will be avoided and mitigated by the possible alternative siting of poles to avoid sites and/or the use of wooden matting to cover sites from construction traffic. These and other mitigation plans will be developed in consultation with the lead Federal agency, the MDAH, and any interested tribes or other consulting parties.

If any sites are identified during the construction phase, construction would be halted immediately, and Cooperative Energy would be notified in order to initiate the procedures outlined in 36 CRF Part 800. Procedures would include the evaluation of the find for NRHP eligibility and determining the appropriate treatment of the find with the MDAH.

Based on the previous and current archeological studies in the area, the flexibility in transmission line pole locations, and the mitigation measures proposed, the project is anticipated to have minimal to no impacts on cultural resources. As a result, the project is not anticipated to result in significant cumulative effects on cultural resources.

Human Health and Safety: Human health and safety infrastructure in the project area are used by existing residential and business development. Agricultural and forest management workers also use the local health and safety infrastructure. RFFAs that may impact human health and safety include the reconstruction of the transmission line.

The project would introduce a limited number of construction workers to the area. Human health and safety hazards would be mitigated by complying with all applicable Federal and state occupational safety and health standards, National Electric Safety Code regulations, and utility design and safety standards. During construction, all employees, contractors, and sub-contractors would be required to adhere to OSHA safety procedures. All heavy equipment would be up to OSHA safety standards and personal safety equipment would be required for all workers on site. Any accidents or incidents would be reported to the designated safety officer. All construction sites will be managed to reduce risks to the general public.

The public will not be allowed into the ROW to protect current and future populations from EMF, though the potential risk is minimal. There are no current or future impacts with respect to environmental risk management because no real estate transactions are necessary for the project. No residences, businesses, or other structures would be allowed in the transmission line ROW.

Based on these measures, it is not anticipated that the project would create considerable additional demands on existing human health and safety intrastate that would contribute to adverse cumulative effects.

Land Use / Important Farmland / FC Lands: Land use in the project area has been altered by existing rural residential and business development; agriculture; electric transmission and distribution lines, and forest management. RFFAs that may impact land use in the project area include the reconstruction of the transmission line.

Land use in the surrounding area a mix of deciduous forest, evergreen forest, shrub/scrub woods, pasture/hay fields, woody wetlands, emergent herbaceous wetlands, and developed land. The proposed transmission lines will not alter the existing land, because this land has already been altered and cleared to build the existing transmission lines. Cooperative Energy will implement, monitor, and maintain BMPs for the project. After construction is complete, disturbed areas would be stabilized as appropriate, either revegetated or covered with rock or other appropriate material.

Because this proposed project is a utility line construction, the FPPA does not apply to the project. The ROW for the existing and proposed reconstruction activity was purchased before August 4, 1984.

The project has been evaluated to determine if any FC Lands could be impacted. The evaluation determined that the following FC lands will not be impacted: Coastal Barriers/National Seashores, National Forests, National Landmarks, National Parks, National Trails, Wild & Scenic Rivers, National Rivers Inventory, National Wildlife Refuges, and National Wilderness. The project will traverse eight thousand thirty and two-tenths (8,530.2) linear feet of the Pascagoula River State WMA. The existing ROW will remain one hundred (100) feet in width. The State of Mississippi's Department of Wildlife, Fisheries, and Parks manage the Pascagoula River State WMA. Because this project will take place in an existing ROW, established decades ago, these state entities and the FC Land they manage will not be impacted and/or altered from its current condition. Because of this there will be no changes to existing visual impacts and no direct or indirect effects to the resources that do not already exist.

The project would introduce land uses identical with current land uses that are already present in the surrounding area. Due to this, cumulative effects on land cover and land use, including Important Farmland and FC Land are not considered significant.

Noise: Existing residential and business development, agriculture, electric transmission and distribution lines, forest management, and associated traffic all currently contribute to noise in the project area. RFFAs that may contribute to existing noise include the reconstruction of the new transmission line. The noise associated with these RFFAs is temporary in nature and would cease upon completion of construction.

Project construction would result in temporary and minor noise impacts in the surrounding area. Construction-related sounds would vary in intensity and duration but would not be permanent. Minor temporary disturbances to wildlife and nearby livestock could occur.

Generally, the operational sounds of transmission lines are low level in nature and will be less fluctuating than construction sound. When combined with the present and reasonably foreseeable impacts of transmission system operations in the future and noise generated by local farming operations and adjacent commercial activities no considerable adverse cumulative noise effects are expected as a result of implementation of the project.

Socioeconomics and Environmental Justice: Past and present actions that have affected socioeconomics in the project area include the establishment of businesses and residential

development, particularly in population areas like Lucedale. Construction of the new transmission line will likely temporarily increase traffic on surrounding roads.

The project is not anticipated to increase the number of permanent residents in the area. Labor for construction would typically be provided by contractors outside the area. However, some opportunities for construction employment of local workers would be available. During construction, the project could produce the need for additional local jobs at business supporting construction and workers. Businesses near the Facility, such as gas stations, convenience stores, and restaurants, may experience increases in business during construction due to construction workers onsite. It is anticipated that no additional permanent workers or craftsmen would be added to the existing workforce. Construction workers may create minimal additional demand for housing and public services, particularly during construction. Local materials such as guy wire, guy wire anchors, and general hardware may be purchased from local businesses. This increased demand would cease after construction is complete and would not add considerably to the demand on existing business, services, or community facilities. During construction, the roads near the project may experience an increase in traffic. Traffic levels are anticipated to return to existing levels after completion of project construction. Traffic and noise impacts to the public during operation of the project would be similar to existing conditions.

The project will not require the clearing of any trees. As such, the project is not anticipated to impact local logging operations. The project could contribute to the local economy through jobs and electric infrastructure support. The project is not anticipated to create considerable adverse socioeconomic consequences. As such, it is not anticipated that the project will contribute to adverse cumulative impacts on socioeconomics in the region.

As discussed in Section 3.9, the local human population is minimally impacted by the project. Due to the lack of planned residential neighborhoods in the area it is anticipated that the project would not have disproportionately high and adverse impact on any environmental justice communities in this area, if they even exist. As discussed in Section 3.8.1, the percent minority population in George County is 10%, while the percent minority in Mississippi is 41% and 24% in the United States. In addition, the percentage of persons of low-income status in George County is lower than the percentage of Mississippians of low-income status. The relative effects to the low-income populations will be diminished compared to the rest of the state. The project should have no bearing on the current and future status of health care access, natural resource availability, air & water quality, social participation opportunities afforded, or “pursuit of happiness” capabilities the minority and low-income populations possess and experience in George County. As such, the project is not anticipated to contribute to environmental justice cumulative impacts.

Transportation: Transportation infrastructure or traffic levels near the project are influenced by residential and business development; agriculture-related traffic; transmission, ROW, and substation maintenance traffic; and forest / lumber management traffic. Other RFFAs that could influence transportation infrastructure or increase traffic levels include the transmission line reconstruction-related traffic. The increased traffic levels related to RFFAs would likely be temporary, and traffic levels would return to levels similar to existing levels after construction is complete.

Construction and operation of the project would have a minimal and short-term effect on the local transportation network. During construction of the project, traffic within the immediate vicinity would be impacted. Travel by the construction workers and transport of equipment and materials would add

to the current traffic volumes on the surrounding roads. Traffic is anticipated to return to levels similar to existing conditions after construction of the project is complete as additional workers, and associated travel, are not anticipated during project operation.

It is probable that all proposed transmission structures associated with the project will not require filing a notice to the FAA to conduct an aeronautical study. Considering that there are existing structures of similar type already located near the project, it is unlikely that any new structures will have an impact on this facility. If any potential conflicts are identified, Cooperative Energy would coordinate with the FAA to design construct the facilities to address these concerns. Therefore, implementation of the project is not anticipated to contribute significantly to cumulative impacts to the region's transportation system.

Water Resources: As described in Section 3.6.2, no adverse effects to water quality are anticipated from project construction and activities. Also, no impacts to the groundwater are anticipated because all aspects of the project are far removed from any groundwater. As such, no cumulative impacts to water quality or groundwater are anticipated.

Past and present actions in the watershed may have impacted wetlands and floodplain, including residential and business development; agriculture; and forest management. The reconstruction of a new transmission line will have little potential to impact wetlands and floodplains as well. The project will not alter the topography or drainage characteristics in the area.

As described in Section 3.3, the new transmission lines intersect potentially jurisdictional wetland areas, including ponds, forested, and shrub wetlands. There is also potential to impact the 100-year floodplain due to project construction and activities. Often these features can be spanned by transmission line structures to minimize impacts to wetlands and floodplain. Cooperative Energy will implement, monitor, and maintain BMPs to minimize erosion and sedimentation. Also, Cooperative Energy consulted with the Mississippi Branch of the Mobile Division of the Army Corps of Engineers to review potential wetland impacts and determine mitigation efforts for any conversion of shrub wetlands to emergent wetlands. The Corps has determined that Cooperative Energy should adhere to all conditions/restrictions of the NWP 12 for the reconstruction of the project. NWP 12 has been replaced for electric utility line and telecommunications activities by NWP 57. Cooperative Energy will comply with NWP 57 during project activities. Therefore, the cumulative impact of the project, when added to other past, present, and RFFAs affecting wetlands and floodplain in the area, would be minimal.

5.0 Summary of Mitigation

Mitigation measures will be implemented during project construction and operation to aid in minimizing potential environmental impacts. Potential mitigation measures include:

- Implementation of proper erosion control measures described by the BMP
- The development and maintenance of BMPs such as:
- Soil and sediment tracked off the project site and onto the surface of a public roadway, paved area, or sidewalk will be removed by sweeping and/or shoveling the roadway, paved area, or sidewalk surfaces, or by using other similarly effective means of sediment removal as practical
- Silt fence will be used to divert water around disturbed soils and construction materials on the project site as applicable
- Temporary structural BMPs must be removed after the project site is stabilized with a uniform perennial vegetative cover of 70 percent density or more for all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures, as applicable
- Periodic site visits to see that vegetation establishment is satisfactory will occur, however, if sufficient vegetative cover has not been achieved, then additional restoration measures will be implemented such as overseeding, mulching, sodding, or the use of erosion control blankets
- Provide and maintain a 50-foot buffer surrounding wetlands and other WOTUS or provide and maintain a natural buffer that is less than 50-feet and contains additional erosion and sediment controls
- A Gopher Tortoise Management Plan will be implemented to protect both the gopher tortoise and black pine snake populations in the project area. This plan outlines the requirements necessary to mitigate and protect these species of concern
- The removal of wooden poles will not result in open holes in the ROW that could require fill. This will be avoided by leaving the base of the pole that is underground in place
- No poles will be placed in floodways. BMPs will be used to ensure sediment and erosion are controlled and minimized to project floodplains. If poles are placed within the floodplain, the earth taken from the holes will be disposed of in uplands areas or spread around the structure avoiding placing fill in any floodplain area
- If timber or wooden mats are deployed to protect sensitive areas, such as wetlands, these mats will be removed after construction is complete. This will ensure that no matting used could become unauthorized fill
- Wood poles that are removed from service during the reconstruction project will be removed from the construction site during and after construction is complete.
- Any mitigation measures addressed in the NWP 57 will be implemented per the permit.

- New transmission poles to be installed will not use footings or padding in order to minimize the size of each structure's base to reduce its potential impacts to wetlands or floodplains
- Cooperative Energy shall ensure that Contractors maintain a copy of the inadvertent discovery plan onsite for review and implementation to ensure cultural resources not accounted for during preconstruction research and surveys are protected and addressed

Construction and survey crews have been and will be instructed and trained to cause no harm to animal species, including snakes. Cooperative Energy will implement the follow mitigation measures to protect the threatened gopher tortoise:

Implement and maintain standard gopher tortoise conservation measures that avoid impacts to the gopher tortoise and its burrows. These conservation measures include flagging all burrows, installing silt screen fencing a minimum of 25-feet from all burrows. Heavy equipment will be kept out of the 25-foot buffer zone. Cooperative Energy will educate employees and hired third-party contractors working on the project on the conservation methods for protecting the tortoise burrows. No harm to snakes encountered during project activities will be allowed to take place during project activities. After construction is complete, disturbed areas would be stabilized with native revegetation and/or revegetated as needed. Silt fencing used to isolate the gopher tortoise temporarily during construction will be removed once construction is complete and all vehicles are removed from the project area.

If at any time during the project activities, Cooperative Energy becomes aware of any adverse environmental effects in the project area, the Cooperative will take action to mitigate impacts immediately.

6.0 Coordination, Consultation and Correspondence

The following provides information on the consultation and coordination conducted by RUS and Cooperative Energy with the public; Federal, state, and local government agencies; and Native American Tribes during the preparation of this EA.

Federal, state, and local government agencies were sent a scoping letter with information related to the project. The letter included an overview of the project; maps of the proposed transmission line and a description of the work involved for the project. The letter requested assistance in identifying specific resource issues that should be investigated during the environmental review for the project. Appendices contain copies of the scoping letters and documents associated with the consultation / coordination with the appropriate environmental, natural resource, and planning agencies. The following is a brief overview of responses:

- Cooperative Energy submitted a Request for Cultural Resource Assessment to the MDAH for the project on April 27, 2020. The MDAH reviewed the proposed project under Section 106 of the (NHPA) and 36 CFR Part 800 and responded with their letter dated June 17, 2020. This letter documented their determination that due to the topography of the area and the presence of archaeological sites near the proposed project area, a cultural resources survey is necessary. The resulting Phase I Cultural Resources Report was forwarded to the MDAH on June 29, 2021.

The MDAH responded with their concurrence letter dated July 13, 2021. This letter documented that their review of the Phase I report concurred that the recommended mitigation methods will result in no adverse impacts to the site discussed in the report to be avoided. In addition, there are two (2) sites that were identified in the report where the boundaries cannot be established, the project should not adversely impact these sites. Two (2) new sites were identified in the report which, are both ineligible for listing in the NRHP and the project will have no effect on these two sites. The agency goes on to state, “With these conditions, we have no reservations with the project.” See [Appendix G](#) for consultation with the MDAH.

- The MDEQ responded to the scoping letter notifying them of the proposed project. The MDEQ stated that it did not expect the project to adversely impact the environment, including water quality and air quality. This was corresponded via the agency’s letter dated May 6, 2020. See [Appendix I](#) and [Appendix K](#) for consultation with the MDEQ.
- The USFWS provided information on protected species with their letter dated April 30, 2020. The USFWS provided the species listed for the project. The federally listed species are the Gulf sturgeon, wood stork, pearl darter, yellow blotched map turtle, Louisiana quillwort, dusky gopher frog, gopher tortoise, and black pinesnake. The letter states that because the project does not include activities that would result in direct or indirect impacts to major rivers, it’s unlikely that the Gulf sturgeon, pearl darter, or the yellow blotched map turtle would be adversely impacted by the proposed project. The adult wood stork would be expected to avoid the project area, and it is unlikely this species would be adversely impacted by the project. The Service states that given that no critical habitat for the dusky gopher frog will be impacted, it is unlikely that this species would be adversely impacted by the project. The Service recommended a site survey to determine if the Louisiana quillwort, gopher tortoise, and the black pinesnake can be found in the project area. The Cooperative hired a biologist to perform a threatened and endangered species survey. The survey determined that gopher tortoise burrows were present in the project area. No other species listed in George County and addressed by the USFWS’s initial letter were located or observed in the project area during the investigation. This information was included in the Threatened and Endangered Species Report dated June 11, 2020. This report was forwarded to the USFWS. The USFWS responded with their letter dated August 31, 2020. The Service determined that the proposed project may affect but is not likely to adversely affect the gopher tortoise provided Cooperative Energy adopt standard gopher tortoise conservation measures that avoid impacts to the gopher tortoise and its burrows. These conservation measures should include flagging all burrows and installing silt screen fencing a minimum of 25-foot from all burrows. Heavy equipment must be kept out of the 25-foot buffer zone. The hand clearing of vegetation is acceptable near these buffer zones. The Cooperative must educate workers on the project of the conservation methods for protecting the tortoise burrows. The Service added that since the black pinesnake habitat can be found in or adjacent to the project area, it is recommended that no harm to snakes encountered during project activities take place. Provided conservation measures are implemented and snakes are not harmed, the Service has determined the proposed project may affect but is not likely to adversely affect the black pinesnake.

The Service also addressed the Louisiana quillwort, stating that based on the absence of the species in streams identified as potential habitat during the field surveys, the Service has determined that the proposed project may affect but is unlikely to adversely affect the Louisiana quillwort.

The Service also documents in their letter that no further consultation is required with their office unless there are changes in the scope or location of the proposed project. See [Appendix H](#) for consultation with the USFWS.

- The United States Army Corps of Engineers, Mobile District, Regulatory Division, South Mississippi Branch, Biloxi (Mississippi) Field Office sent correspondence dated February 5, 2021. This email states that if timber mats are placed to provide support for heavy equipment while crossing wetland habitat and/or conducting the replacement activity, a temporary discharge of fill material would be considered to have occurred (even if the mats are removed after construction). Should the mats, if used, remain in place, a permanent discharge of fill material would occur, and mitigation may be required. In accordance with Nationwide Permit, General Condition 32, the proposed project is considered verified by default because the Corps failed to respond within 45-days of receipt of the complete pre-construction notification. The email goes on to state that it is incumbent upon the permittee to ensure they adhere to all conditions/restrictions of NWP 12, the Nationwide Permit General conditions, Regional Conditions, and WQC and CZM certifications. The Corps provided a copy of the NWP 12 with associated conditions. The Corps also states in the email that the Corps does not intend to send further documentation of this decision. Since this correspondence, the Corps has issued a new NWP 57, which addresses electric utility line and telecommunication activities in the WOTUS. The Cooperative will follow the requirements of this new NWP 57, also. The United States Army Corps of Engineers, Mobile District, Planning Division did not respond to the initial scoping letter. See [Appendix F](#) for consultation with the Corps of Engineers.
- The NRCS was provided a scoping letter. The NRCS did not respond to the scoping letter. See [Appendix C](#) for correspondences with the NRCS.
- The SMPDD was provided a scoping letter. The District responded with their letter dated April 30, 2020. The District assigned the project their own unique designation of SMPDD#2004-0001. The District's letter stated that the Regional Clearinghouse has received notification of intent to apply for Federal assistance and has no comments. See [Appendix B](#) for coordination with Planning and Development District.
- The George County Floodplain Manager was provided a scoping letter. The Floodplain Manager did not respond. See [Appendix E](#) for correspondence with this agency.
- The Pascagoula River State WMA, National Park Service, and State Forest Management Service were notified of the proposed project to allow the agency to provide any necessary mitigation measures or permits. These agencies have not responded to the scoping letters as of publication of this document. See [Appendix D](#) for correspondence with this agency.

Tribal Coordination

Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2), RUS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review. In accordance with this blanket delegation, Cooperative Energy initiated Section 106 review on behalf of RUS. Cooperative Energy sent coordination letters to Tribal Historic Preservation Officers (THPOs) and other tribal officials of the Mississippi Band of Choctaw Indians, Tunica-Biloxi Tribe of Louisiana, Jena Band of Choctaw, Coushatta Tribe of Louisiana, and Choctaw Nation of Oklahoma. Copies of the tribal coordination letters and tribal responses are located in Appendix G. The Coushatta Tribe of Louisiana responded with an email dated September 16, 2021. Their email, sent by the Tribes' Section 106 Coordinator, documented the Tribes' response that the project will have no negative impact on any archaeological, historic, or cultural resources of the Coushatta people. The remainder of the Tribes listed have not responded as of publication of this document.

7.0 References

1. <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>
2. <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>
3. <https://msc.fema.gov/portal/home>
4. <https://www.swt.usace.army.mil/Portals/41/docs/missions/regulatory/2021%20NWP/2021%20nwp-57.pdf?ver=F7mNZTBZMvLsS64liMcieg%3D%3D>
5. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf
6. 2011 Archaeological Testing of the Bilbo Basin Shell Deposit Site (22GE512), George County, Mississippi. Mississippi Archaeology 46:1 and 2, pp.31 – 61.
7. *Reserved*
8. <https://www.britannica.com/place/Mississippi-state/Plant-and-animal-life>
9. <https://mississippiencyclopedia.org/entries/native-plants/>
10. <http://extension.msstate.edu/native-shrubs-for-mississippi-landscapes>
11. Threatened and Endangered Species Report, Wetland Consulting Service, Inc. June 11, 2020.
12. <https://www.audubon.org/important-bird-areas>
13. <https://www.federalregister.gov/documents/2020/04/16/2020-06779/general-provisions-revised-list-of-migratory-birds>
14. http://wildlife.org/wp-content/uploads/2014/11/Policy-Brief_BGEPA_FINAL.pdf
15. <https://www.fws.gov/migratorybirds/pdf/management/bald-eagle-fact-sheet.pdf>
16. <https://www.fws.gov/migratorybirds/pdf/management/golden-eagle-fact-sheet.pdf>
17. https://www.fws.gov/midwest/eagle/NestingData/pdf/be_prsmap_wo2006.pdf
18. <https://www.fws.gov/migratorybirds/pdf/management/EagleRuleRevisions-StatusReport.pdf>
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20. <http://extension.msstate.edu/publications/mississippi%E2%80%99s-10-worst-invasive-weeds>
21. <https://www.mdeq.ms.gov/wp-content/uploads/2003/02/pastatusreport2001.pdf>
22. <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>
23. <https://www.usgs.gov/media/files/principal-aquifers-united-states-printable-map-explanation>
24. <https://pubs.usgs.gov/pp/1416h/plate-1.pdf>
25. <https://pubs.er.usgs.gov/publication/wri874172>

26. https://www.mdeq.ms.gov/wp-content/uploads/2010/02/PRELIMINARY-ASSESSMENT-PA-MARCH-1992_TAB-10.PDF
27. <https://www.mdeq.ms.gov/water/>
28. <https://www.census.gov/content/census/en/search-results.html?stateGeo=none&q=Lucedale%20city,%20MS&searchtype=web>
29. <https://opcgis.deq.state.ms.us/ensearchonline/epd-active-permits-and-coverages.aspx#grid>
30. https://www.mdeq.ms.gov/wp-content/uploads/TMDLs/MS_2020_Approved_Section_303d_list.pdf
31. Guidance to Applicants for Preparing Environmental Assessments
32. <https://data.census.gov/cedsci/table?q=District%201,%20George%20County,%20Mississippi&tid=ACSST5Y2019.S0101&hidePreview=true>
33. <https://www.census.gov/quickfacts/MS>
34. <https://ejscreen.epa.gov/mapper/>
35. <https://www.census.gov/quickfacts/US>
36. <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-81?toc=1>
37. <https://www.who.int/news-room/q-a-detail/radiation-electromagnetic-fields>
38. Exhibit D-8: Guidance for Preparing a Macro-Corridor Study
39. <https://www.govinfo.gov/app/details/CFR-2012-title40-vol34/CFR-2012-title40-vol34-sec1508-7>

8.0 List of Preparers

The environmental review for the project was prepared by Cooperative Energy. The following is a list of preparers of this document.

Cooperative Energy

- Jeremy Van Slyke, RPG, Environmental Analyst
- Stephanie Kilgore, PE, Environmental Manager
- Hank Sossaman, Environmental Specialist

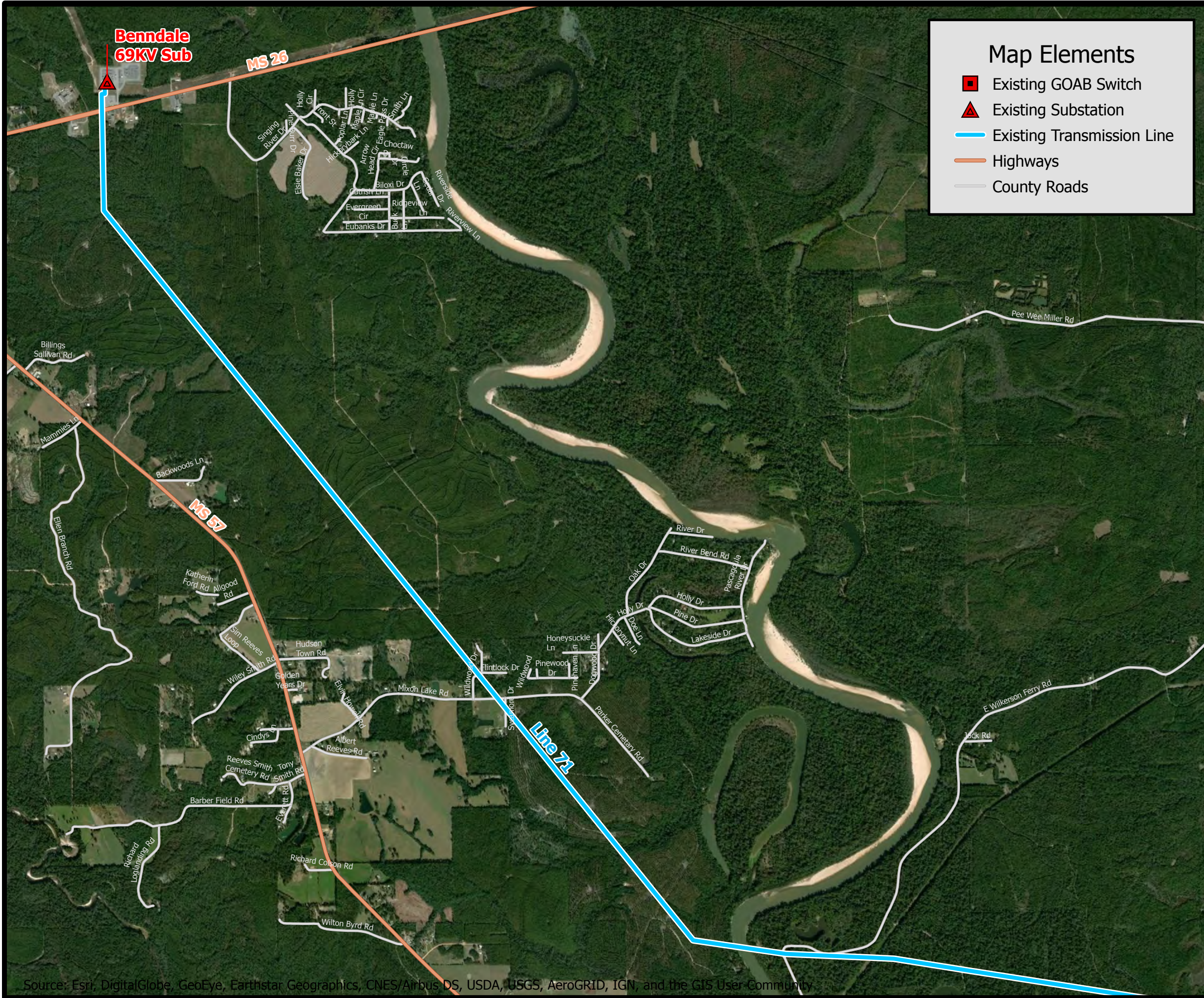
Cooperative Energy was assisted by the research and on-site field survey Professional Services of:

- Wetland Consulting Services, Inc. Hattiesburg, Mississippi
- TerraXplorations, Inc. Mobile, Alabama

Exhibits or Attachments

Appendix A

Project Maps

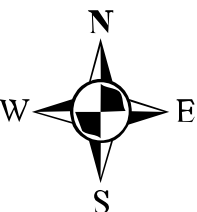
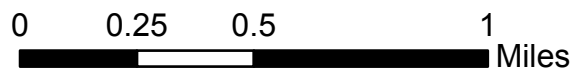


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

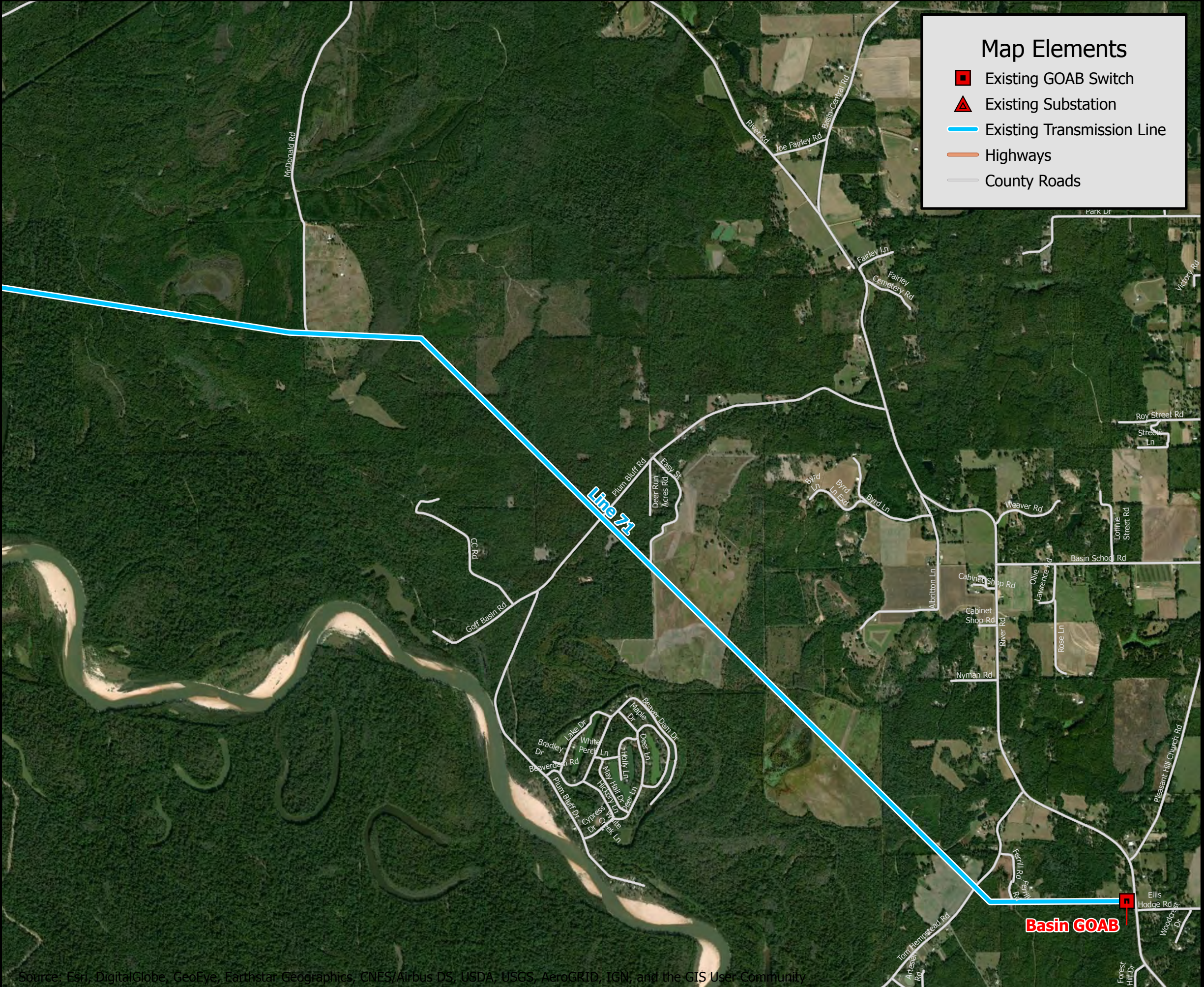
Line 71 Rebuild: Benndale 69KV Sub. to Basin GOAB



Project Location Map



Pages:	Date:	Created by:
1 of 2	4/16/2020	Kyle Walley



Map Elements

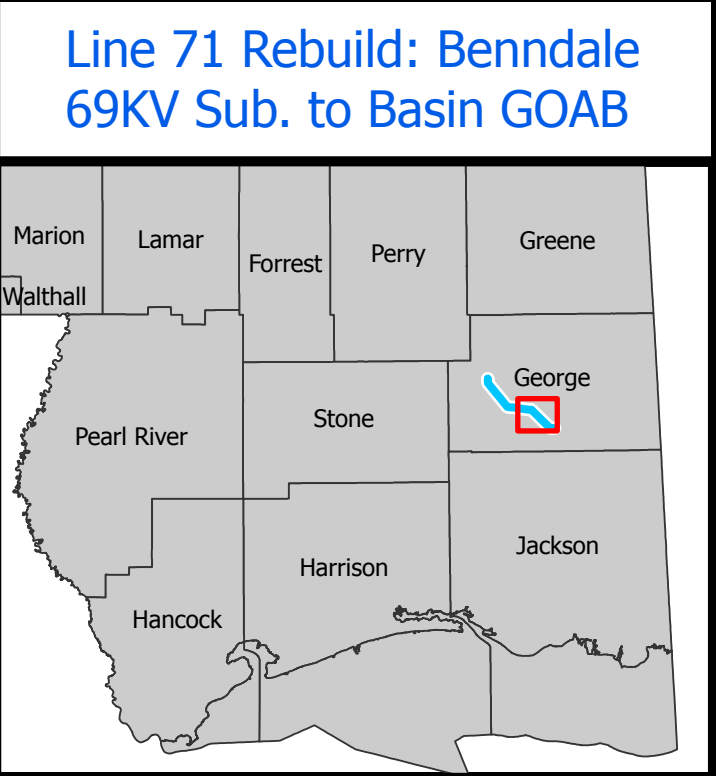
Existing GOAB Switch

Existing Substation

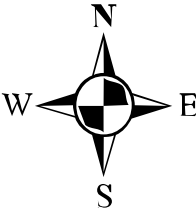
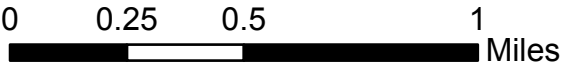
Existing Transmission Line

Highways

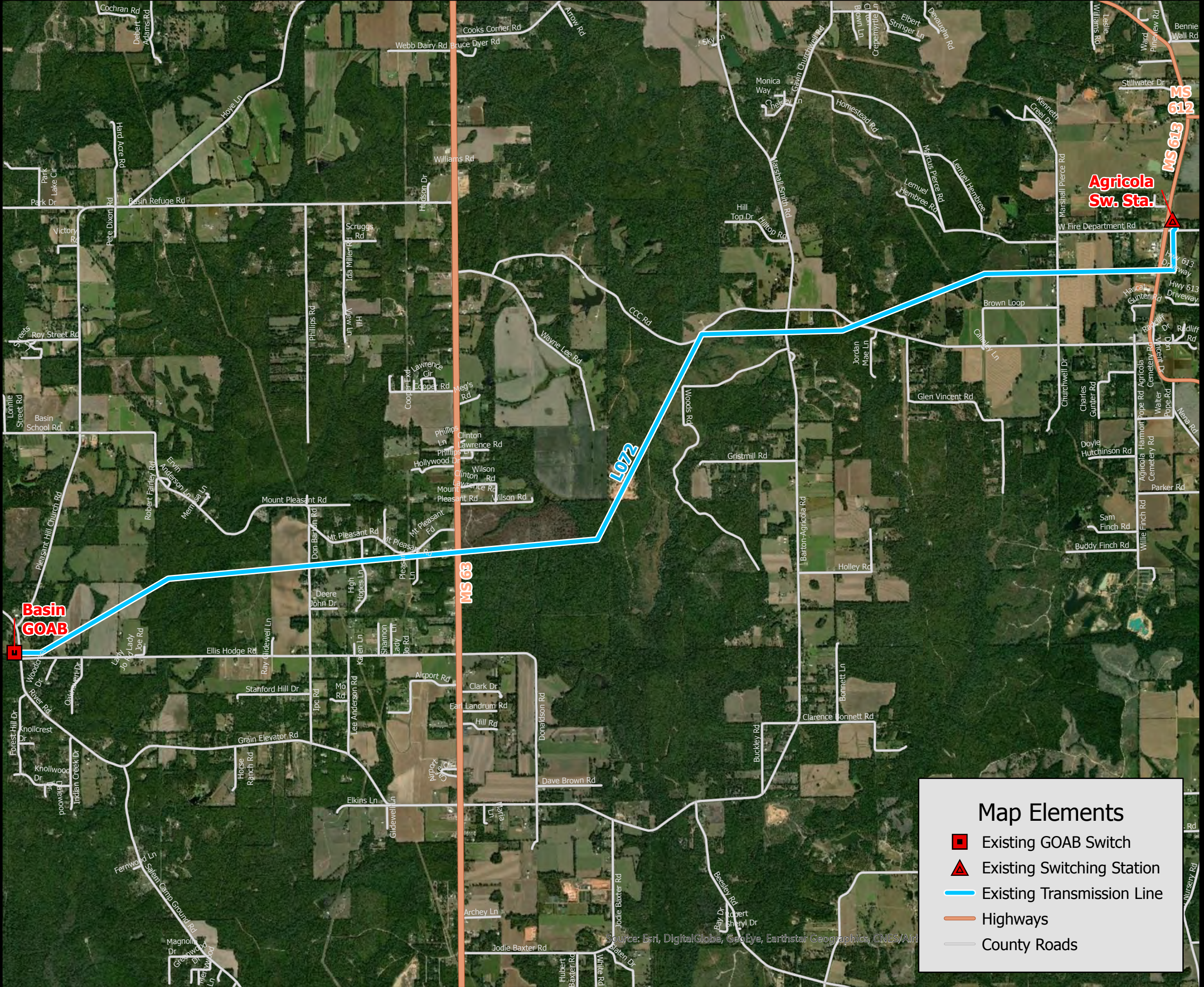
County Roads



Project Location Map



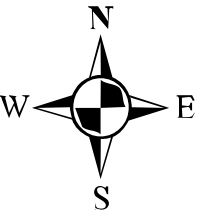
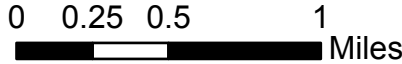
Pages:	Date:	Created by:
2 of 2	4/16/2020	Kyle Walley



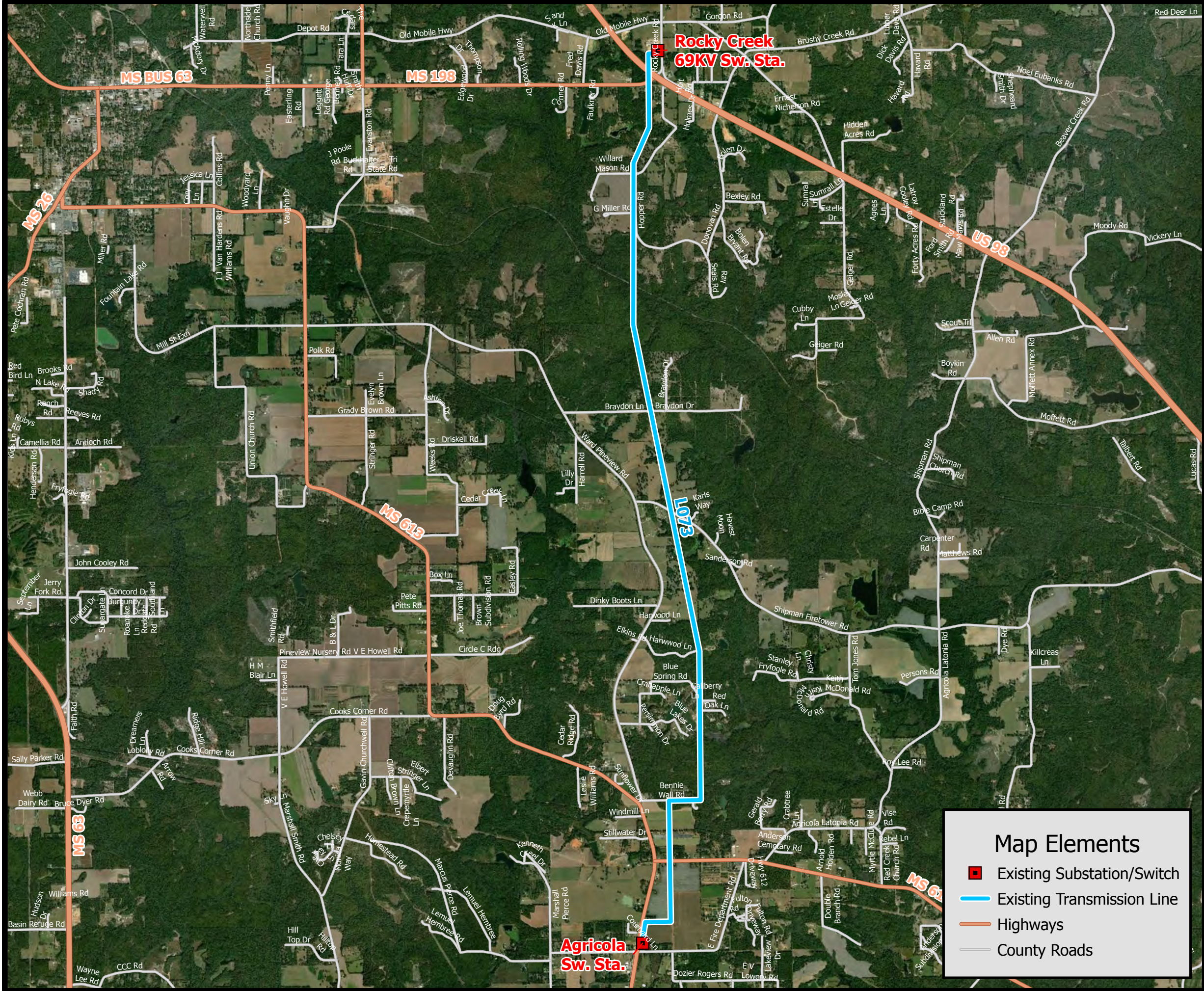
Line 72 Rebuild: Basin GOAB to Agricola Sw. Station



Project Location Map



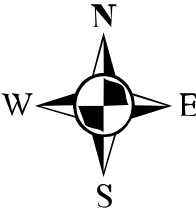
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1 of 1	4/22/2020	Kyle Walley



Line 73 Rebuild: Rocky Creek 69KV Sw. Station to Agricola Sw. Station



Project Location Map



Pages:	Date:	Created by:
1 of 1	4/23/2020	Kyle Walley

Appendix B

General Land Use



Southern Mississippi Planning & Development District

BUILDING A STRONGER MISSISSIPPI

April 30, 2020

Mr. Hank Sossaman
Environmental Specialist
Cooperative Energy
P.O. Box 15849
Hattiesburg, MS 39404-2083

**RE: USDA Rural Utility Service – Financing of Rebuild Lines 71, 72, and 73 Project:
replacement of end-of-life wood transmission poles with steel/concrete poles in
George County, MS -- SMPDD #2004-00 01**

Dear Mr. Sossaman,

I have enclosed the review and comments from the Southern Mississippi Planning and Development District Regional Clearinghouse for Federal Programs regarding your application for the work stated above. This project will be located in **George County**.

If you require further information concerning the regional review and comments, please do not hesitate to contact me.

Sincerely,

Lindsay Ward
Clearinghouse Coordinator

Attachment

SOUTHERN MISSISSIPPI PLANNING AND DEVELOPMENT DISTRICT REGIONAL
CLEARINGHOUSE FOR FEDERAL PROGRAMS
REVIEW AND COMMENTS

April 30, 2020

Mr. Hank Sossaman
Environmental Specialist
Cooperative Energy
P.O. Box 15849
Hattiesburg, MS 39404-2083

RE: USDA Rural Utility Service – Financing of Rebuild Lines 71, 72, and 73
Project: replacement of end-of-life wood transmission poles with
steel/concrete poles in George County, MS -- SMPDD #2004-00 01

(X) 1. The Regional Clearinghouse has received notification of intent to apply for Federal assistance as described above. (X) NO COMMENTS () NO CLEARINGHOUSE NEEDED.

() 2. The Regional Clearinghouse has reviewed the application(s) for Federal assistance described above.

() 3. The Regional Clearinghouse has notified the appropriate metropolitan, local, and regional organizations and is awaiting notification of their interest on the project.

() 4. After proper notification, no local or regional agency (or other appropriate organization) has expressed an interest in conferring with the applicant(s) or commenting on the proposed project.

() 5. The proposed project is () consistent () inconsistent with the Comprehensive Economic Development Strategy for the Southern Mississippi Planning and Development District.

() 6. Although a _____ plan does not presently exist for _____, the proposed project appears to be () consistent () inconsistent with the regional goals and objectives.

COMMENTS: This project is consistent with the policies and objectives of the Southern Mississippi Planning and Development District.



Leonard Bentz, Executive Director

Hank Sossaman

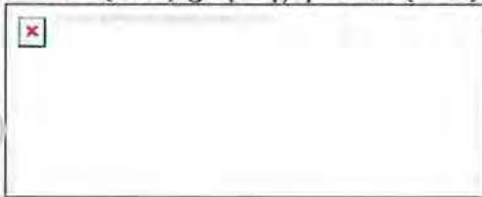
From: Lindsay Ward <lward@smpdd.com>
Sent: Thursday, April 30, 2020 10:15 AM
To: Hank Sossaman
Subject: Re: Cooperative Energy - New Project
Attachments: 04-30 Cooperative Energy RUS George Co..pdf

{***External Email - Use caution clicking links or opening attachments***}

Good morning, Hanck -

I hope you all have been continuing to do well. See the attached Clearinghouse letter for your files. Thanks!

Lindsay Ward
Economic Development Manager
Southern Mississippi Planning and Development District
10441 Corporate Drive, Ste. 1
Gulfport, MS 39503
Office: (228) 314-1474 Cell: (228) 861-8260



On Tue, Apr 28, 2020 at 9:18 AM Hank Sossaman <hsossaman@cooperativeenergy.com> wrote:

Hi Lindsay,

Attached please find a letter and a compressed folder with maps for a new project in George Co. for your review and hopeful approval.

Thanks and best regards,



Hank Sossaman

Environmental Specialist

Cooperative Energy

Internal Ext. 2330

Office 228 Carley Building

Phone 601-261-2330

From: admincc@cooperativeenergy.com <admincc@cooperativeenergy.com>

Sent: Tuesday, April 28, 2020 9:05 AM

To: Hank Sossaman <hsossaman@cooperativeenergy.com>

Subject: Attached Image

CONFIDENTIALITY NOTICE: The information contained in this communication is PRIVILEGED AND CONFIDENTIAL and intended only for the use of the individual to whom it is addressed. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system.

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Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

NOTICE

TO: Planning Bodies and Governmental Agencies Addressed

FROM: Cooperative Energy, a Mississippi Electric Cooperative

DATE: April 27, 2020

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, Mississippi:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

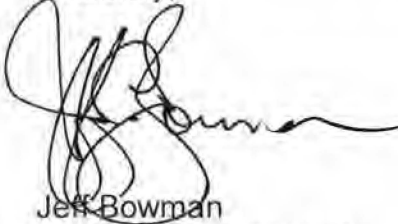
Cooperative Energy will be required to submit an environmental assessment of the project to the USDA's Rural Utilities Services (RUS).

This application is submitted for review and comments within thirty (30) days to fulfill requirements of 7 CFR Part 1970. If there is any indication that the proposed construction may be inconsistent with any area-wide goals and plans of your agency, please notify us as soon as possible so that such problems may be resolved. None of the funds in this loan will be released by the RUS until at least thirty (30) days after the date of this notification.

If further information is required concerning the proposed construction, it will be supplied upon request.

Comments and requests should be addressed to Jeff Bowman, President/ CEO, Cooperative Energy, P. O. Box 15849, Hattiesburg, MS 39404-5849.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Bowman', with a long horizontal flourish extending to the right.

Jeff Bowman
President and Chief Executive Officer

JB/hms

cc: Southern Mississippi Planning & Development District
George County Board of Supervisors

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☒ Preapplication
☐ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify):**

*** 3. Date Received:**

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:**

Cooperative Energy

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

64-0367992

*** c. Organizational DUNS:**

d. Address:

*** Street1:**

PO Box 15849

Street2:

*** City:**

Hattiesburg

County/Parish:

*** State:**

MS: Mississippi

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:**

39404-2083

e. Organizational Unit:

Department Name:

USDA

Division Name:

Rural Utilities Service

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

*** First Name:**

Hank

Middle Name:

*** Last Name:**

Sossaman

Suffix:

Title:

Environmental Specialist

Organizational Affiliation:

Cooperative Energy / Bulk Power Supply

*** Telephone Number:**

601-261-2330

Fax Number:

601-2612375

*** Email:**

hsossaman@cooperativeenergy.com

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

X: Other (specify)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

Electric Cooperative

* 10. Name of Federal Agency:

Rural Utilities Service

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

* 12. Funding Opportunity Number:

N/A

* Title:

N/A

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Rebuild Lines 71, 72, & 73

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="8,892,000.00"/>
* b. Applicant	<input type="text"/>
* c. State	<input type="text"/>
* d. Local	<input type="text"/>
* e. Other	<input type="text"/>
* f. Program Income	<input type="text"/>
* g. TOTAL	<input type="text" value="8,892,000.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email:

* Signature of Authorized Representative:

* Date Signed

ATTACH THIS FORM TO THE 424 APPLICATION FORM

A-95 FORM 101

PREAPPLICATION:

APPLICATION:

APPLICANT NAME: Cooperative Energy

COUNTY PROJECT LOCATION: George County

NAME OF EXECUTIVE DIRECTOR: Jeff Bowman (President / CEO)

NUMBER OF PEOPLE EMPLOYED BY THIS PROJECT: 100

NAMES OF BOARD OF DIRECTORS:

Ron Barnes	Joey Cunningham
Kevin Bonds	Roy Grafe
David O'Bryan	Harry Howarth
William H. Hardin	Brian Hughey
Keith Hurt	Randy Smith
Hugh Gene Smith	W. Darrell Smith
Gil Arceneaux	Louis S. Thompson
Mack J. Mauldin	Randy Wallace
Tim Perkins	Ron White
Cindy Shipp	Les Peters
Richard Thoms	Randy Woolley
Dennis Wilson	

OFFICERS

Louis S. Thomson, Vice Chairman & Acting Chairman
Mack J. Mauldin, Secretary
Ron Barnes, Acting Secretary-Treasurer

Appendix C

Important Farmland



Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2183

CooperativeEnergy.com

April 27, 2020

District Conservationist
Hattiesburg Service Office
113 Fairfield Drive
Hattiesburg, MS 39402

Dear Sir or Madam:

Enclosed is Form AD-1006 for a Farmland Conversion Impact Rating on a proposed project in Lamar County, Mississippi. This transmission line rebuild project will occur in an established and existing transmission line right-of-way. Because of this, the need to provide this form may be unnecessary, but we provide it nonetheless to provide your office an opportunity to comment if you wish. The project is described as follows:

Rebuild Lines 71, 72, & 73 Project in George County, MS -

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

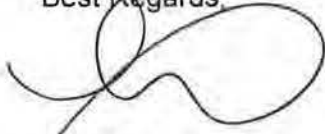
The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary. Cooperative Energy will be required to submit an environmental assessment of this project to the USDA's RUS.

Please complete Parts II, IV, and V, or whichever parts you deem appropriate, then return the form to me that I may transmit it to RUS for completion. Thank you very much for your attention to this matter.

Best Regards,

A handwritten signature in black ink, appearing to be 'Hank Sossaman', written in a cursive style.

Hank Sossaman
Environmental Specialist

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal agency)		Date of Land Evaluation Request April 27, 2020			
Name of Project Rebuild Lines 71, 72, & 73		Federal Agency Involved Rural Utilities Service			
Proposed Land Use Reconstruction of 69kV transmission lines		County And State George, MS			
PART II (To be completed by SCS)		Date Request Received by SCS			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply – do not complete additional parts of this form)		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land in Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %			
Name of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By SCS			
PART III (To be completed by Federal agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		0.68			
B. Total Acres To Be Converted Indirectly		358.32			
C. Total Acres In Site		359.00			
PART IV (To be completed by SCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by SCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 points)					
PART VI (To be completed by Federal Agency)		Maximum Points			
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))					
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS		160			
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V) 100		100			
Total Site Assessment (From Part VI above or a local site assessment)		160			
TOTAL POINTS (Total of above 2 lines)		260			
Site Selected:		Date of Selection:		Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Reason For Selection:					


Appendix D

Formally Classified Lands

NEPAssist

nepassisttool.epa.gov/nepassist/nepamap.aspx

Home | Mobile | Help




United States
Environmental Protection
Agency

Find address or place

BasemapImageryDrawEraseSave SessionToolsMore Data

+

-



Select Map Contents

EPA Facilities

Water Monitoring Stations

Boundaries

☐ ZIP Codes

☐ Congressional Districts

☐ City Boundary

☐ Urbanized Areas

☒ Federal Lands

VA

USDA

TVA

NPS

NASA

MWAA

HHS

GSA

FWS

FS

DOT

DOL

DOJ

DOE

DOD

DOC

BOR

BLM

BIA

☐ Townships Boundary

☐ Counties


☐ States

EnviroMapper®

© 2021 Microsoft Corporation, © 2021 TomTom | EPA OEI | U.S. EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS) | EPA OEI, OFA

Powered by Esri

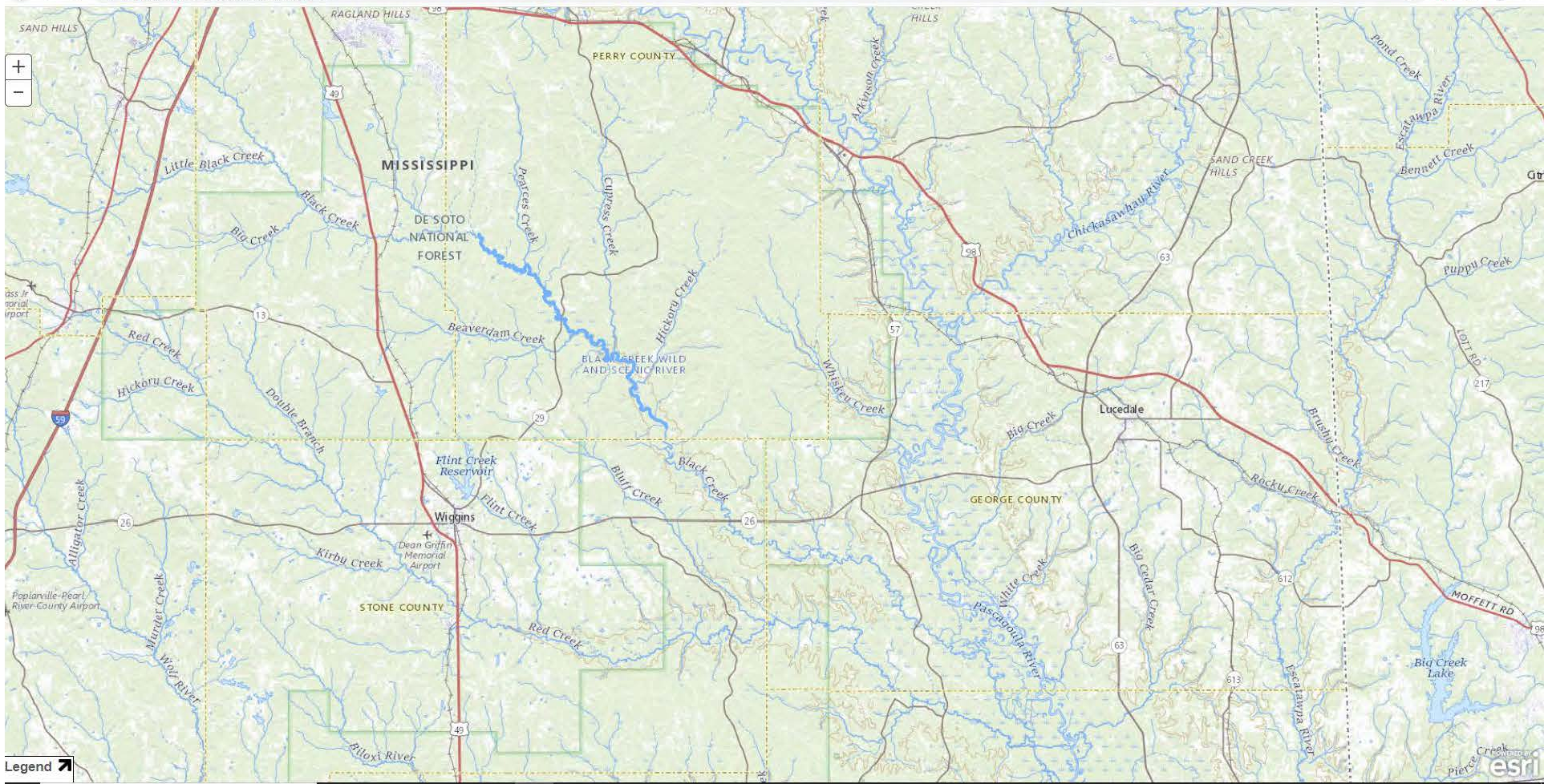
Type here to search



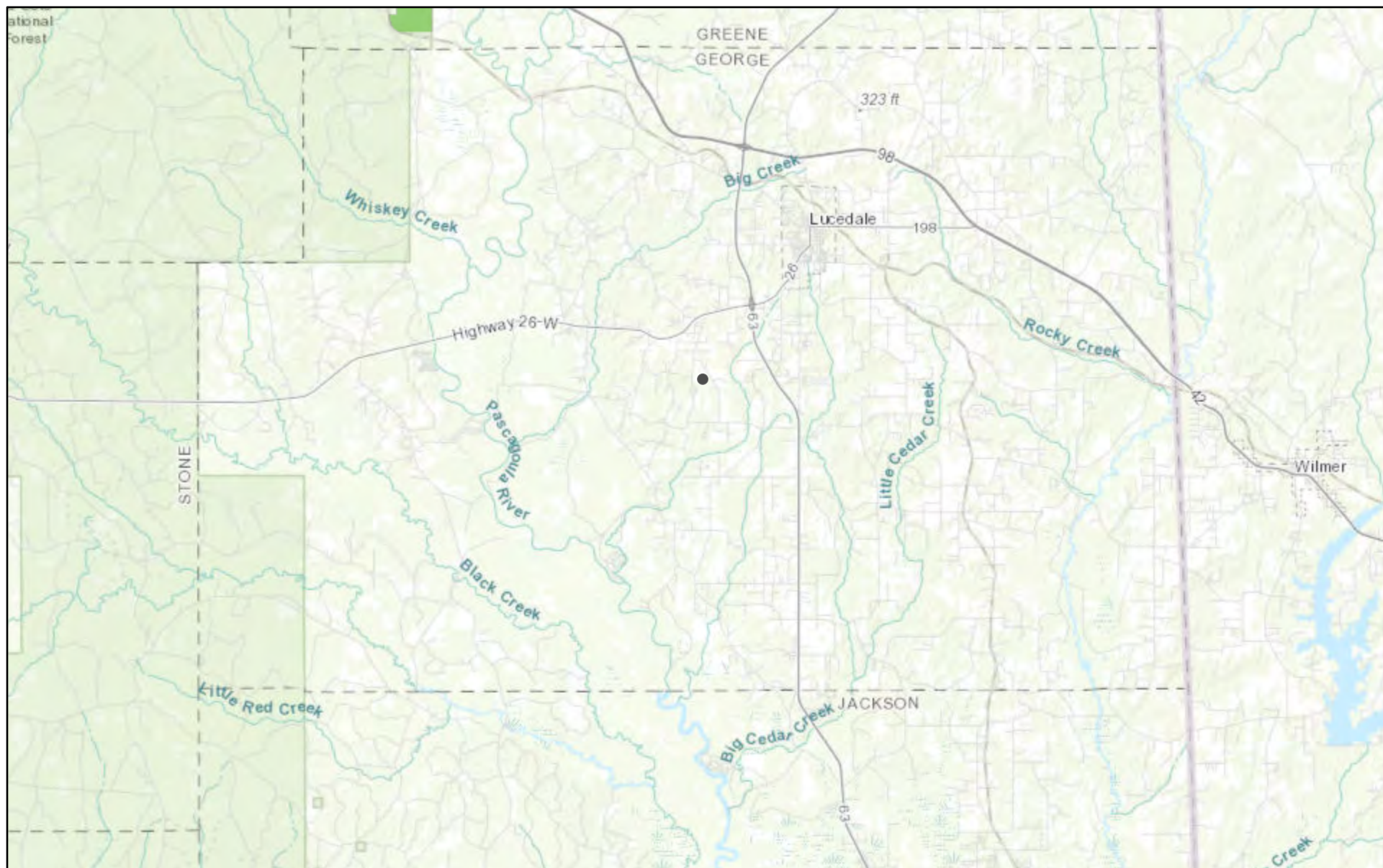
76°F AQI 55

ENG

8:10 AM 8/24/2021



Wilderness Map Lines 71, 72, & 73



8/23/2021, 11:42:54 AM

National Wilderness Preservation System

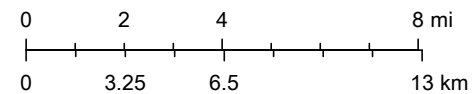
Bureau of Land Management

Fish and Wildlife Service

Forest Service

National Park Service

1:288,895



MARIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Web AppBuilder for ArcGIS
MARIS, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS |

MISSISSIPPI

Mississippi has approximately 81,316 miles of river, of which 21 miles of one river are designated as wild & scenic—less than 3/100ths of 1% of the state's river miles.



[+ View larger map](#)

EXPLORE DESIGNATED RIVERS

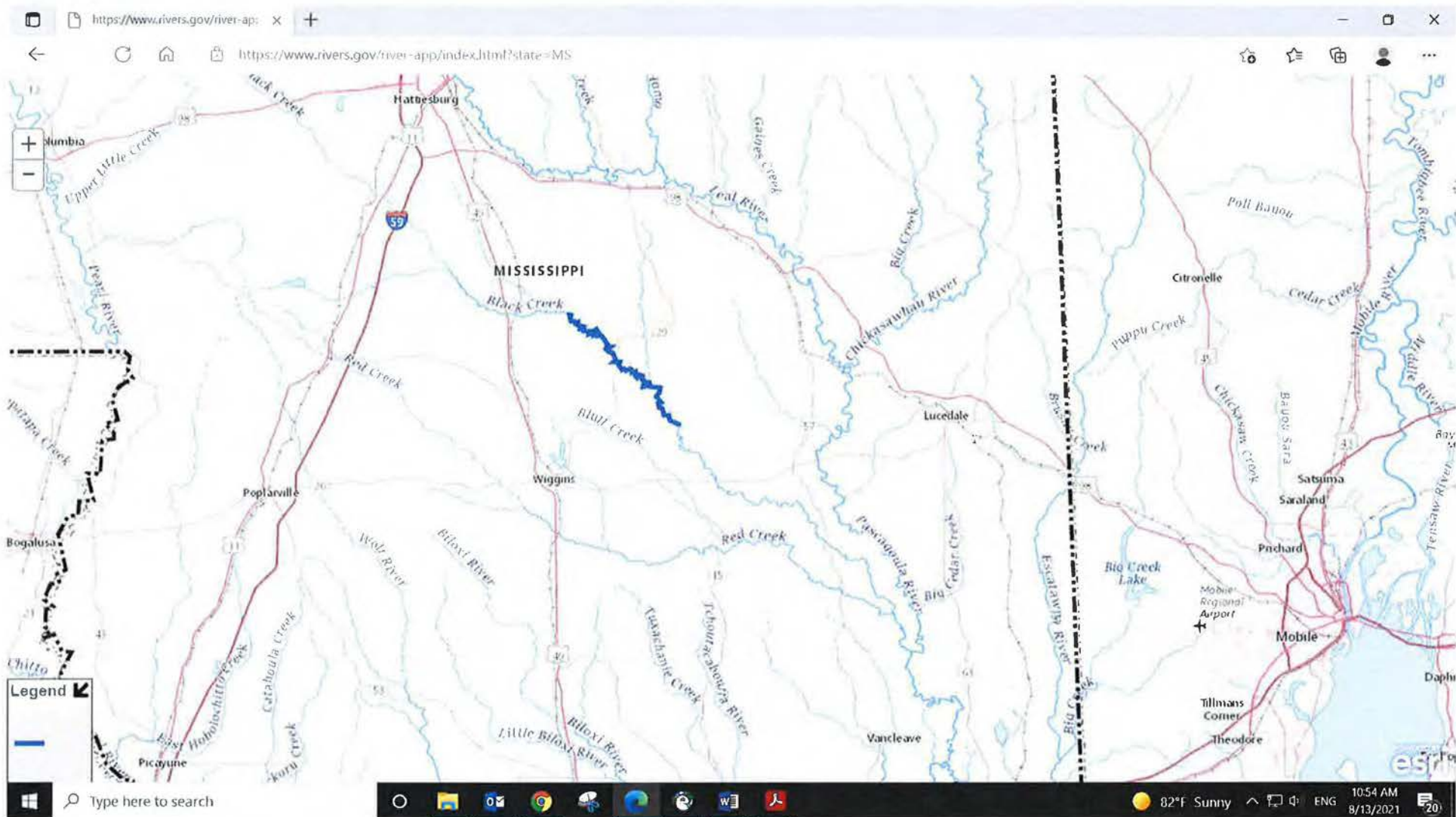


Choose A State

Choose A River

Rivers of the Southeast define diversity, from bayous and rivers pushed by the tides to clear mountain streams with world-class whitewater.

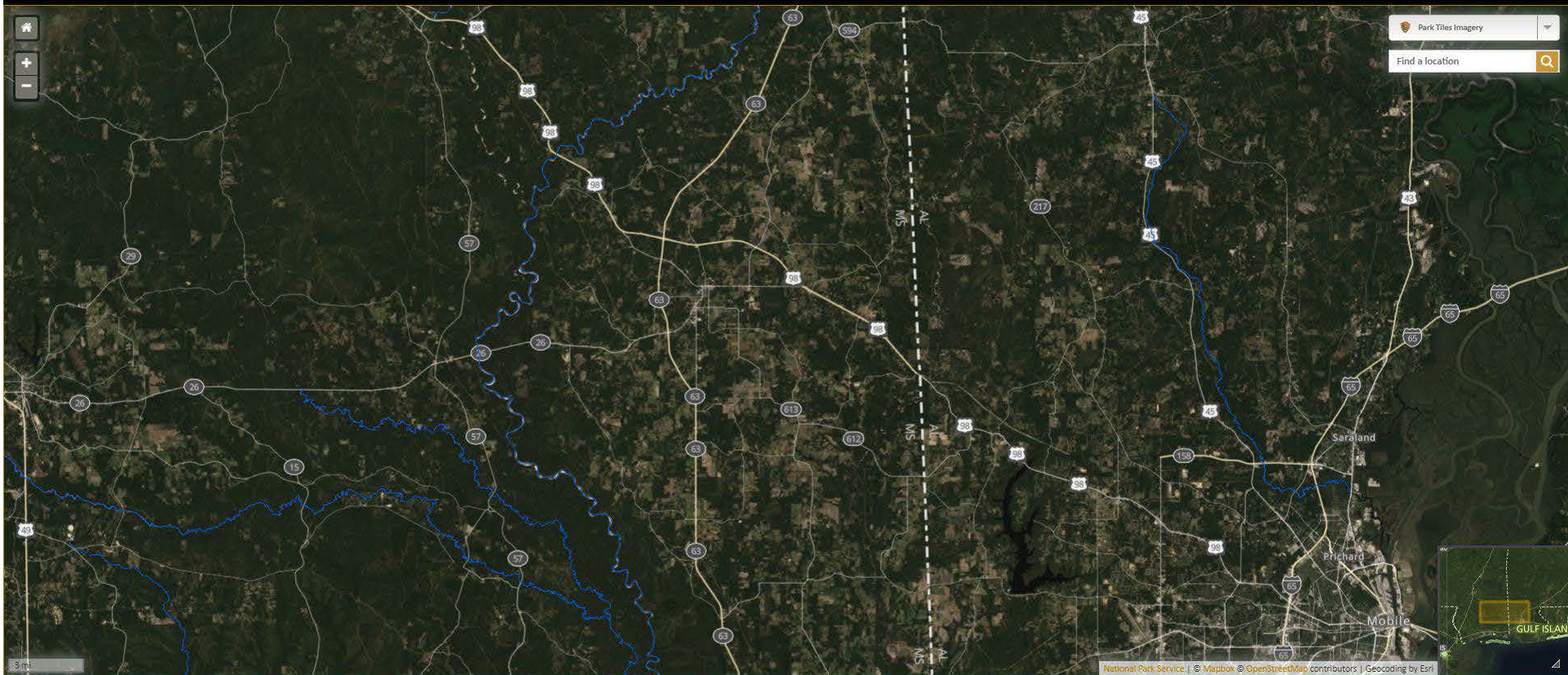




Nationwide Rivers Inventory

This is a listing of more than 3,200 free-flowing river segments in the U.S. that are believed to possess one or more "outstandingly remarkable" values.

National Park Service
U.S. Department of the Interior





Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

National Park Service
Pascagoula River – National Rivers Inventory
1801 Gulf Breeze Parkway
Gulf Breeze, FL 32563

To Whom It May Concern:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

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The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

Cooperative Energy will be required to submit an environmental assessment of the project to the USDA's Rural Utilities Services (RUS).

The project referred to is shown on the enclosed maps. Please advise if there are any environmental constraints associated with this project area that should be avoided or dealt with under your jurisdiction.

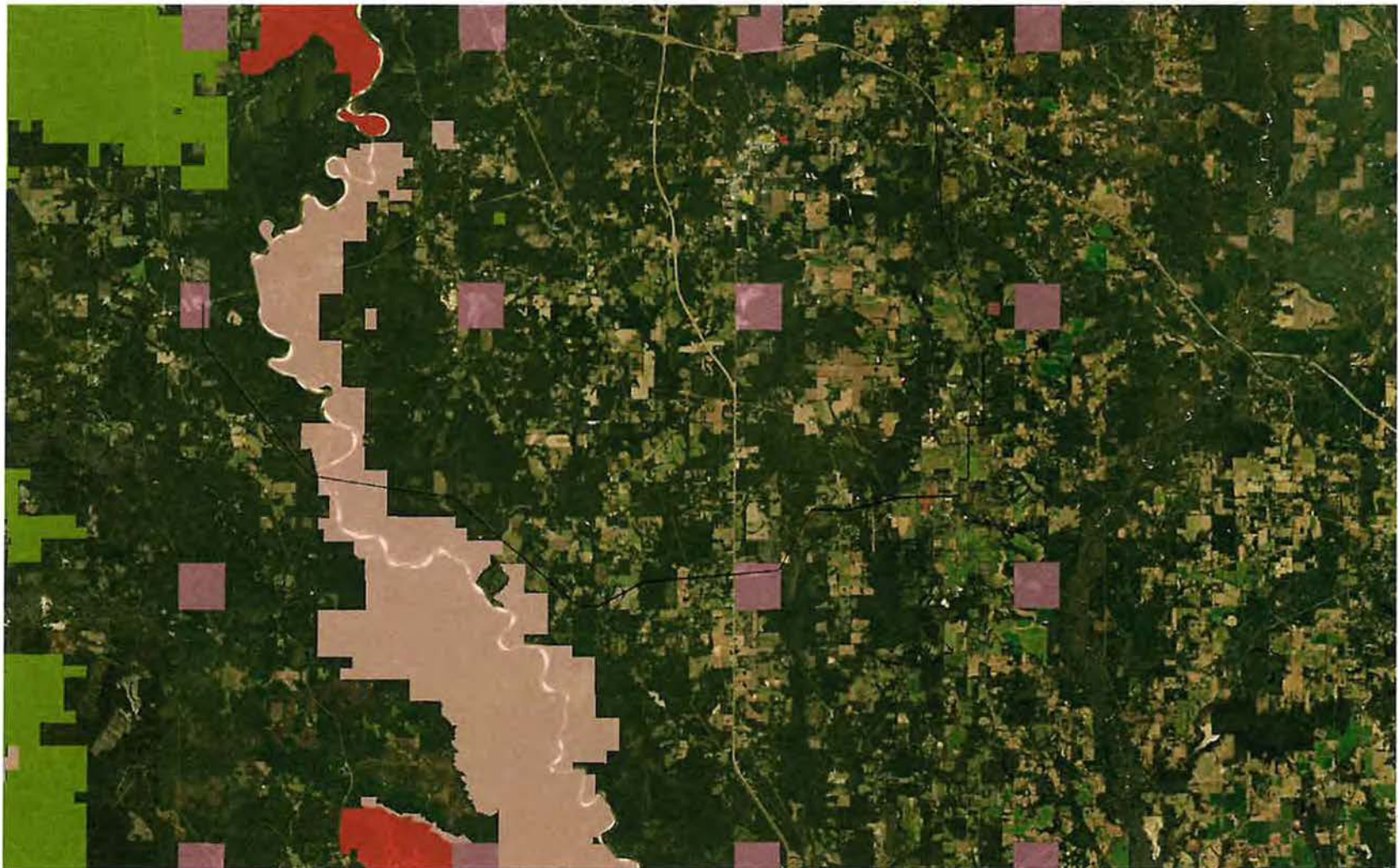
If there are any indications of environmental constraints within the boundaries of this project that must be addressed, please notify us as soon as possible so that such problems can be resolved. If none exist, a letter from your office would be greatly appreciated so that it may be incorporated as a part of the environmental assessment.

Best regards,

A handwritten signature in blue ink, appearing to read 'Hank Sossaman', with a stylized flourish at the end.

Hank Sossaman
Environmental Specialist

Protected Areas Database of the United States Viewer



Legends

Rebuild Lines 71, 72, & 73 in George County, Mississippi.zip**Fee Managers**

Protected Areas Database of the United States (PAD-US) v2.1

**Dataset Details****Rebuild Lines 71, 72, & 73 in George County, Mississippi.zip**

This file only exists in your browser. To share it, you must load it onto a public web server.

Fee Managers**Data Description**

An ArcGIS WebService representing fine level manager or administrative agency name standardized for the Nation (USFS, BLM, State Fish and Wildlife, State Parks and Rec, City, NGO, etc). Where available this layer includes fee simple parcels from the PAD-US 2.1 Fee feature Class plus DOD and Tribal from the Proclamation feature class. Use for categorization by manager name, with detailed federal managers and generic state/local/other managers. DOD and Tribal areas shown with 50% transparency. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

An ArcGIS WebService representing fine level manager or administrative agency name standardized for the Nation (USFS, BLM, State Fish and Wildlife, State Parks and Rec, City, NGO, etc). Where available this layer includes fee simple parcels from the PAD-US 2.1 Fee feature Class plus DOD and Tribal from the Proclamation feature class. Use for categorization by manager name, with detailed federal managers and generic state/local/other managers. DOD and Tribal areas shown with 50% transparency. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Copyright Text

U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey data release, <https://doi.org/10.5066/P92QM3NT>.

Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FeeManagers/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FeeManagers/MapServer

Manager Name

Data Description

An ArcGIS WebService representing fine level manager or administrative agency name standardized for the Nation (USFS, BLM, State Fish and Wildlife, State Parks and Rec, City, NGO, etc). This map is based on the PAD-US 2.1 Combined Proclamation, Marine, Fee, Designation, Easement feature class. DOD and Tribal areas shown with 50% transparency. Use for categorization by manager name, with detailed federal managers and generic state/local/other managers. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ManagerName/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ManagerName/MapServer

Manager Type

Data Description

An ArcGIS WebService representing coarse level land manager description from "Agency Type" Domain, "Manager Type" Field (for example, Federal, Tribal, State, Local Gov, Private). Use for broad categorization of manager levels, for general depictions of who manages what areas. Tribal areas shown with 50% transparency. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

Service representing coarse level land manager description from "Agency Type" Domain, "Manager Type" Field (for example, Federal, Tribal, State, Local Gov, Private). Use for broad categorization of manager levels, for general depictions of who manages what areas. Tribal areas shown with 50% transparency.

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ManagerType/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ManagerType/MapServer

Protection Mechanism Category

Data Description

An ArcGIS WebService representing the protection mechanism category including fee simple, internal management designations, easements, leases and agreements, and Marine Areas. Proclamation category shown as gray outline. Use to show categories of land tenure for all protected areas, including marine areas. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

Service representing the protection mechanism category including fee simple, internal management designations, easements, leases and agreements, and Marine Areas. Proclamation category shown as gray outline. Use to show categories of land tenure for all protected areas, including marine areas.

Copyright Text

U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey data release, <https://doi.org/10.5066/P92QM3NT>.

Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ProtectionMechanismCategory/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ProtectionMechanismCategory/MapServer

Protection Status by GAP Status Code

Data Description

The USGS Protected Areas Database of the United States (PAD-US) is the nation's inventory of protected areas, including public land and voluntarily provided private protected areas, identified as an A-16 National Geospatial Data Asset in the Cadastre Theme (<https://communities.geoplatform.gov/ngda-cadastre/>). The PAD-US is an ongoing project with several published versions of a spatial database including areas dedicated to the preservation of biological diversity, and other natural (including extraction), recreational, or cultural uses, managed for these purposes through legal or other effective means. The database was originally designed to support biodiversity assessments; however, its scope expanded in recent years to include all public and nonprofit lands and waters. Most are public lands owned in fee (the owner of the property has full and irrevocable ownership of the land); however, long-term easements, leases, agreements, Congressional (e.g. 'Wilderness Area'), Executive (e.g. 'National Monument'), and administrative designations (e.g. 'Area of Critical Environmental Concern') documented in agency management plans are also included. The PAD-US strives to be a complete inventory of public land and other protected areas, compiling "best available" data provided by managing agencies and organizations. The PAD-US geodatabase maps and describes areas using over twenty-five attributes and five feature classes representing the U.S. protected areas network in separate feature classes: Fee (ownership parcels), Designation, Easement, Marine, Proclamation and Other Planning Boundaries. Five additional feature classes include various combinations of the primary layers (for example, Combined_Fee_Easement) to support data management, queries, web mapping services, and analyses. This PAD-US Version 2.1 dataset includes a variety of updates and new data from the previous Version 2.0 dataset (USGS, 2018 <https://doi.org/10.5066/P955KPLE>), achieving the primary goal to "Complete the PAD-US Inventory by 2020" (<https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap/science/pad-us-vision>) by addressing known data gaps with newly available data. The following list summarizes the integration of "best available" spatial data to ensure public lands and other protected areas from all jurisdictions are represented in PAD-US, along with continued improvements and regular maintenance of the federal theme. Completing the PAD-US Inventory: 1) Integration of over 75,000 city parks in all 50 States (and the District of Columbia) from The Trust for Public Land's (TPL) ParkServe data development initiative (<https://parkserve.tpl.org/>) added nearly 2.7 million acres of protected area and significantly reduced the primary known data gap in previous PAD-US versions (local government lands). 2) First-time integration of the Census American Indian/Alaskan Native Areas (AIA) dataset (<https://www2.census.gov/geo/tiger/TIGER2019/AIANNH>) representing the boundaries for federally recognized American Indian reservations and off-reservation trust lands across the nation (as of January 1, 2020, as reported by the federally recognized tribal governments through the Census Bureau's Boundary and Annexation Survey) addressed another major PAD-US data gap. 3) Aggregation of nearly 5,000 protected areas owned by local land trusts in 13 states, aggregated by Ducks Unlimited through data calls for easements to update the National Conservation Easement Database (<https://www.conservationeasement.us/>), increased PAD-US protected areas by

over 350,000 acres. Maintaining regular Federal updates: 1) Major update of the Federal estate (fee ownership parcels, easement interest, and management designations), including authoritative data from 8 agencies: Bureau of Land Management (BLM), U.S. Census Bureau (Census), Department of Defense (DOD), U.S. Fish and Wildlife Service (FWS), National Park Service (NPS), Natural Resources Conservation Service (NRCS), U.S. Forest Service (USFS), National Oceanic and Atmospheric Administration (NOAA). The federal theme in PAD-US is developed in close collaboration with the Federal Geographic Data Committee (FGDC) Federal Lands Working Group (FLWG, <https://communities.geoplatform.gov/ngda-govunits/federal-lands-workgroup/>); 2) Complete National Marine Protected Areas (MPA) update: from the National Oceanic and Atmospheric Administration (NOAA) MPA Inventory, including conservation measure ('GAP Status Code', 'IUCN Category') review by NOAA; Other changes: 1) PAD-US field name change - The "Public Access" field name changed from 'Access' to 'Pub_Access' to avoid unintended scripting errors associated with the script command 'access'. 2) Additional field - The "Feature Class" (FeatClass) field was added to all layers within PAD-US 2.1 (only included in the "Combined" layers of PAD-US 2.0 to describe which feature class data originated from). 3) Categorical GAP Status Code default changes - National Monuments are categorically assigned GAP Status Code = 2 (previously GAP 3), in the absence of other information, to better represent biodiversity protection restrictions associated with the designation. The Bureau of Land Management Areas of Environmental Concern (ACECs) are categorically assigned GAP Status Code = 3 (previously GAP 2) as the areas are administratively protected, not permanent. More information is available upon request. 4) Agency Name (FWS) geodatabase domain description changed to U.S. Fish and Wildlife Service (previously U.S. Fish & Wildlife Service). 5) Select areas in the provisional PAD-US 2.1 Proclamation feature class were removed following a consultation with the data-steward (Census Bureau). Tribal designated statistical areas are purely a geographic area for providing Census statistics with no land base. Most affected areas are relatively small; however, 4,341,120 acres and 37 records were removed in total. Contact Mason Croft (masoncroft@boisestate) for more information about how to identify these records. For more information regarding the PAD-US dataset please visit, <https://usgs.gov/gapanalysis/PAD-US/>. For more information about data aggregation please review the Online PAD-US Data Manual available at <https://www.usgs.gov/core-science-systems/science-analytics-and-synthesis/gap/pad-us-data-manual>.

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U.S. Geological Survey (USGS) Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PAD-US) 2.1: U.S. Geological Survey data release, <https://doi.org/10.5066/P92QM3NT>

Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/SpatialAnalysisGAPStatus/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/SpatialAnalysisGAPStatus/MapServer

Protected Areas by Manager

Data Description

An ArcGIS WebService representing protected areas categorized as GAP Status 1-3 classified by GAP Status Code protection level and manager type. Allows users to see extent of biodiversity protection and multiple use areas by manager type (federal, state, etc.). For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

Service representing protected areas categorized as GAP Status 1-3 classified by GAP Status Code protection level and manager type. Allows users to see extent of biodiversity protection and multiple use areas by manager type (federal, state, etc.).

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ProtectedAreasbyManager/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ProtectedAreasbyManager/MapServer

Public Access

Data Description

An ArcGIS WebService representing the general level of public access permitted in the area - Open, Restricted (permit, seasonal), Closed. Public Access Unknown areas not included. Use to show general categories of public access (however, not all areas have been locally reviewed). For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

Service representing general level of public access permitted in the area - Open, Restricted (permit, seasonal), Closed. Public Access Unknown areas not included. Use to show general categories of public access (however, not all areas have been locally reviewed).

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/PublicAccess/MapServer

Metadata URL

<https://maps.usgs.gov/padus/>

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/PublicAccess/MapServer

Federal Fee Managers (Authoritative Data)

Data Description

An ArcGIS WebService describing authoritative fee data for federal managers or administrative agencies by name. U.S. Department of Defense and Tribal areas shown with 50% transparency from the Proclamation feature class. Use to depict authoritative fee data for individual federal management agencies (no state, local or private lands). This service does not include designations that often overlap state, private or other inholdings. U.S. Department of Defense internal land ownership is not represented but is implied Federal. See the Federal Management Agencies service for a combined view of fee ownership, designations, and easements. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

An ArcGIS WebService describing authoritative fee data for federal managers or administrative agencies by name. U.S. Department of Defense and Tribal areas shown with 50% transparency from the Proclamation feature class. Use to depict authoritative fee data for individual federal management agencies (no state, local or private lands). This service does not include designations that often overlap state, private or other inholdings. U.S. Department of Defense internal land ownership is not represented but is implied Federal. See the Federal Management Agencies service for a combined view of fee ownership, designations, and easements. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FederalFeeManagersAuth/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FederalFeeManagersAuth/MapServer

Federal Management Agencies

Data Description

An ArcGIS WebService describing federal managers or administrative agencies by name. DOD and Tribal areas shown with 50% transparency. Use to depict individual federal management agencies (no state, local or private lands). This map is based on the PAD-US 2.1 Combined Proclamation, Marine, Fee, Designation, Easement

feature class. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

An ArcGIS WebService describing federal managers or administrative agencies by name. DOD and Tribal areas shown with 50% transparency. Use to depict individual federal management agencies (no state, local or private lands). This map is based on the PAD-US 2.1 Combined Proclamation, Marine, Fee, Designation, Easement feature class. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FederalManagementAgencies/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FederalManagementAgencies/MapServer

Proclamation and Other Planning Boundaries

Data Description

An ArcGIS WebService representing boundaries that provide additional context. Administrative agency name standardized for the nation (DOD, FWS, NPS, USFS, Tribal). Boundaries shown with outline only, as proclamation data do not depict actual ownership or management. Use to show outline of agency proclamation, approved acquisition or other planning boundaries where internal ownership is not depicted. For more information about PAD-US: <https://doi.org/10.5066/P92QM3NT>.

Service Description

Service representing boundaries that provide additional context. Administrative agency name standardized for the nation (DOD, FWS, NPS, USFS, Tribal). Boundaries shown with outline only, as proclamation data do not depict actual ownership or management. Use to show outline of agency proclamation, approved acquisition or other planning boundaries where internal ownership is not depicted.

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ProclamationandOtherPlanningBoundaries/MapServer

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/ProclamationandOtherPlanningBoundaries/MapServer

Fee Topology Fed/State Grtr than 5 Ac

Data Description

This layer identifies large overlaps (greater than 5 acres in size) between federal and state managed records (minimum distance between feature coordinates to evaluate overlap relationship = 0.05 meter) within the PAD-US 2.1 Fee Feature Class plus State managed designations from the Designation feature class.

As an aggregated data inventory, PAD-US contains thousands of data sources which are all integrated into one combined database. The policy of USGS is to accept agency data “as is” and translate them into the PAD-US format. Boundaries created by a specific agency or data steward may not fully align with those of another, creating GIS topology errors (mostly minor boundary discrepancies) associated with fee parcel ownership. In addition, more than one agency may submit an area for PAD-US without complete attributes that differentiate the fee owner and land manager. The FGDC Federal Lands Working Group (FLWG, <https://communities.geoplatform.gov/ngda-govunits/federal-lands-workgroup/>) and the PAD-US Team made great progress with version 2.1 in reducing boundary discrepancies among federal agencies and between federal and state lands. PAD-US has a number of feature classes that overlay one another - for example, some easements overlay fee lands or other easements; many designation or proclamation boundaries overlay fee and/or easement lands, as well as other designations/proclamations. These are not errors - they are an accurate reflection of the world of protected areas data. But they can create challenges for spatial data users. In PAD-US version 2.1, designations and proclamations are in separate feature classes which has helped address this issue, but overlapping boundaries still remain in the fee parcel ownership layer desired for many applications. Users are encouraged to generally review these overlaps, contained in this record or the full topology assessment available here: <https://doi.org/10.5066/P92QM3NT>.

Service Description

As an aggregated data inventory, PAD-US contains thousands of data sources which are all integrated into one combined database. The policy of USGS is to accept agency data “as is” and translate them into the PAD-US format. Boundaries created by a specific agency or data steward may not fully align with those of another, creating GIS topology errors (mostly minor boundary discrepancies) associated with fee parcel ownership. In addition, more than one agency may submit an area for PAD-US without complete attributes that differentiate the fee owner and land manager.

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assessment available here: <https://doi.org/10.5066/P92QM3NT> . The assessment identifies all overlaps (minimum distance between feature coordinates to evaluate overlap relationship = 0.05 meter), large (greater than 5 acres), and small (less than 5 acres) overlaps between federal agency lands and between federal and state agency lands in the Fee feature class.

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FeeTopologyOverlaps/MapServer/3

Layer name: 3

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FeeTopologyOverlaps/MapServer/3

Fee Topology Fed/Fed Grtr than 5 Ac

Data Description

This layer identifies large overlaps (greater than 5 acres in size) between federally managed records (minimum distance between feature coordinates to evaluate overlap relationship = 0.05 meter) within the PAD-US 2.1 Fee Feature Class plus State managed designations from the Designation feature class.

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Service Description

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Esri ArcGIS MapServer URL

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Layer name: 1

Metadata URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FeeTopologyOverlaps/MapServer/1

Fee Topology - All Errors

Data Description

This layer identifies all overlaps between records (minimum distance between feature coordinates to evaluate overlap relationship = 0.05 meter) within the PAD-US 2.1 Fee Feature Class plus State managed designations from the Designation feature class.

As an aggregated data inventory, PAD-US contains thousands of data sources which are all integrated into one combined database. The policy of USGS is to accept agency data "as is" and translate them into the PAD-US format. Boundaries created by a specific agency or data steward may not fully align with those of another, creating GIS topology errors (mostly minor boundary discrepancies) associated with fee parcel ownership. In addition, more than one agency may submit an area for

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Service Description

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Esri ArcGIS MapServer URL

https://gis1.usgs.gov/arcgis/rest/services/padus2_1/FeeTopologyOverlaps/MapServer/0

Layer name: 0

Metadata URL

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Map Credits

- [object HTMLDivElement]
- U.S. Geological Survey, Gap Analysis Project (GAP), 2020, Protected Areas Database of the United States (PADUS), Version 2.1 Combined Feature Class
- Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

State Forest Management
Region 4 Office
477 South Gate Road
Hattiesburg, MS 39401

To Whom It May Concern:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

Cooperative Energy will be required to submit an environmental assessment of the project to the USDA's Rural Utilities Services (RUS).

The project referred to is shown on the enclosed maps. Please advise if there are any environmental constraints associated with this project area that should be avoided or dealt with under your jurisdiction.

If there are any indications of environmental constraints within the boundaries of this project that must be addressed, please notify us as soon as possible so that such problems can be resolved. If none exist, a letter from your office would be greatly appreciated so that it may be incorporated as a part of the environmental assessment.

Best regards,



Hank Sossaman
Environmental Specialist

Appendix E

Floodplains

Hank Sossaman

From: Hank Sossaman
Sent: Thursday, August 26, 2021 1:19 PM
To: floodplain@georgecountymms.gov
Subject: Transmission Line Project - Cooperative Energy
Attachments: Letter to Ms. Gilbert.pdf; L071_Quad.pdf; L072_Env_Quad.pdf; L073_Env_Quad.pdf

Hi Ms. Gilbert,

Thanks for your time on the phone this morning.

Attached please find a letter and maps of a reconstruction project we are proposing in George County for your review and comment.

Thank you and best regards,



Hank Sossaman
Environmental Specialist
Cooperative Energy
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Phone 601-261-2330





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Fax: 601.261.2390

August 26, 2021

Ms. Debbie Gilbert
Deputy EMA Director &
Flood Plain Administrator
Suite J
355 Cox Street
Lucedale, MS 39452

Subject: Floodplain Manager Notification
Rebuild Lines 71, 72, & 73 Project
George County, Mississippi

Dear Ms. Gilbert,

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the United States Department of Agriculture (USDA) Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referenced to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, Mississippi:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to



P. O. Box 15849
Hattiesburg, MS 39404-5849

7037 US Hwy 49
Hattiesburg, MS 39402

Phone: 601.268.2083
Fax: 601.261.2390

Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild project will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

Cooperative Energy will be required to submit an environmental report of the project to RUS.

This notice along with location map and FEMA FIRMette maps of the project area are being submitted for review and comments within thirty (30) days to fulfill requirement of 7 CFR Part 1970. If there is any indication that the proposed construction may be inconsistent with the Floodplain goals, please notify us as soon as possible so that such problems may be resolved. None of the funds in this loan will be released by the RUS until at least thirty (30) days after the date of this notification.

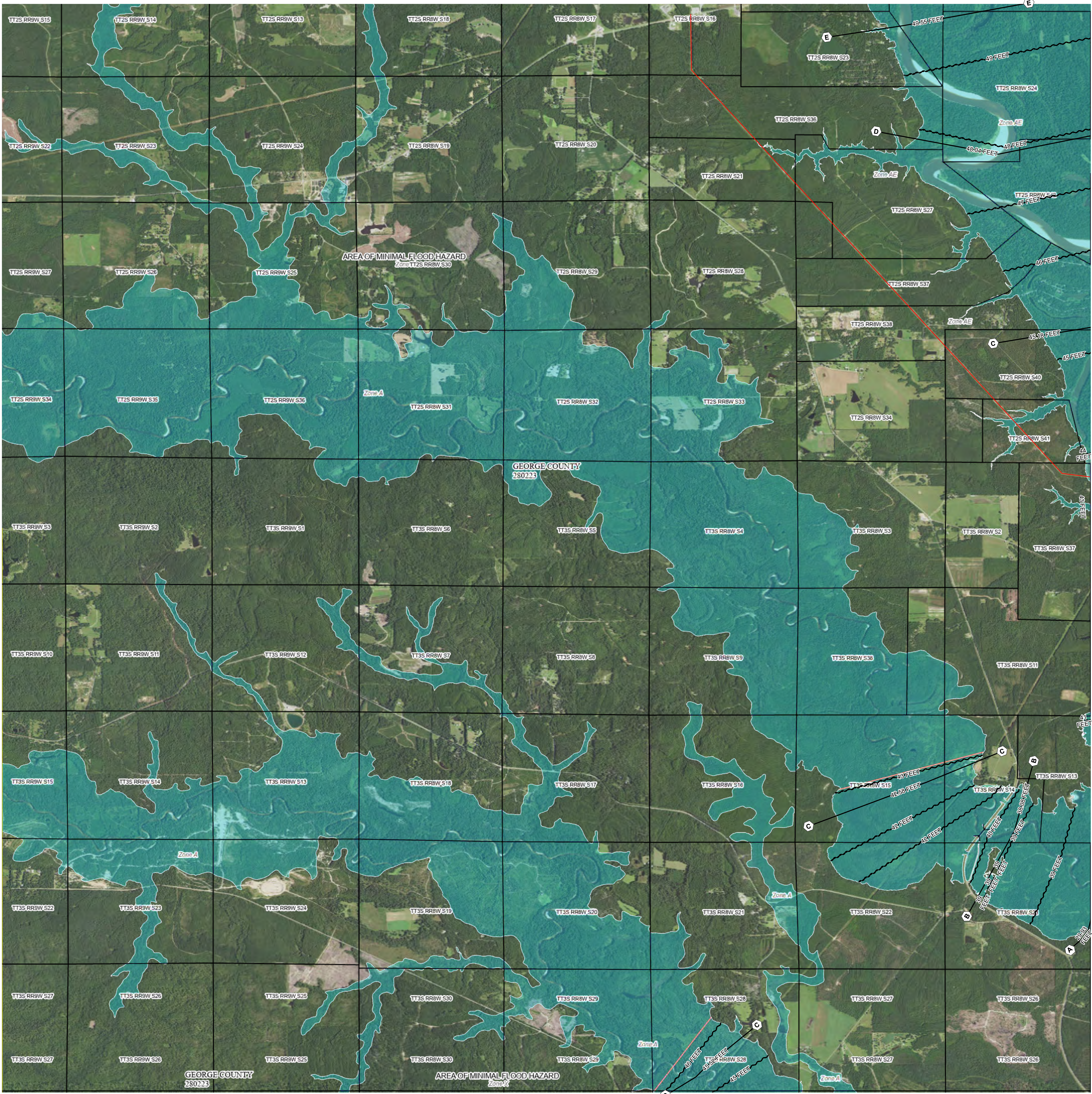
If further information is required concerning the proposed construction, it will be supplied upon request.

Best Regards,



Hank Sossaman
Environmental Specialist

Enclosure



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE)
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes Zone X
OTHER AREAS		Area with Flood Risk due to Levee Zone D
		NO SCREEN Area of Minimal Flood Hazard Zone X
GENERAL STRUCTURES		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
OTHER FEATURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance
		Water Surface Elevation
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Jurisdiction Boundary

NOTES TO USERS

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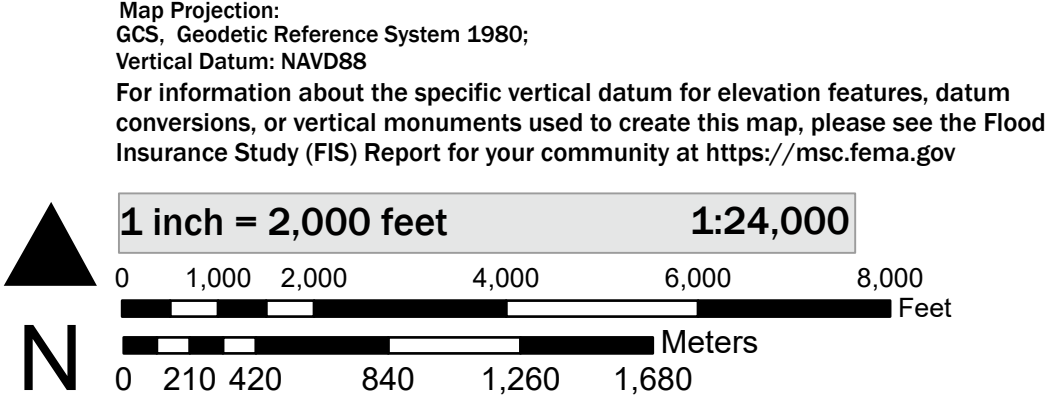
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **3/3/2021 2:55 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

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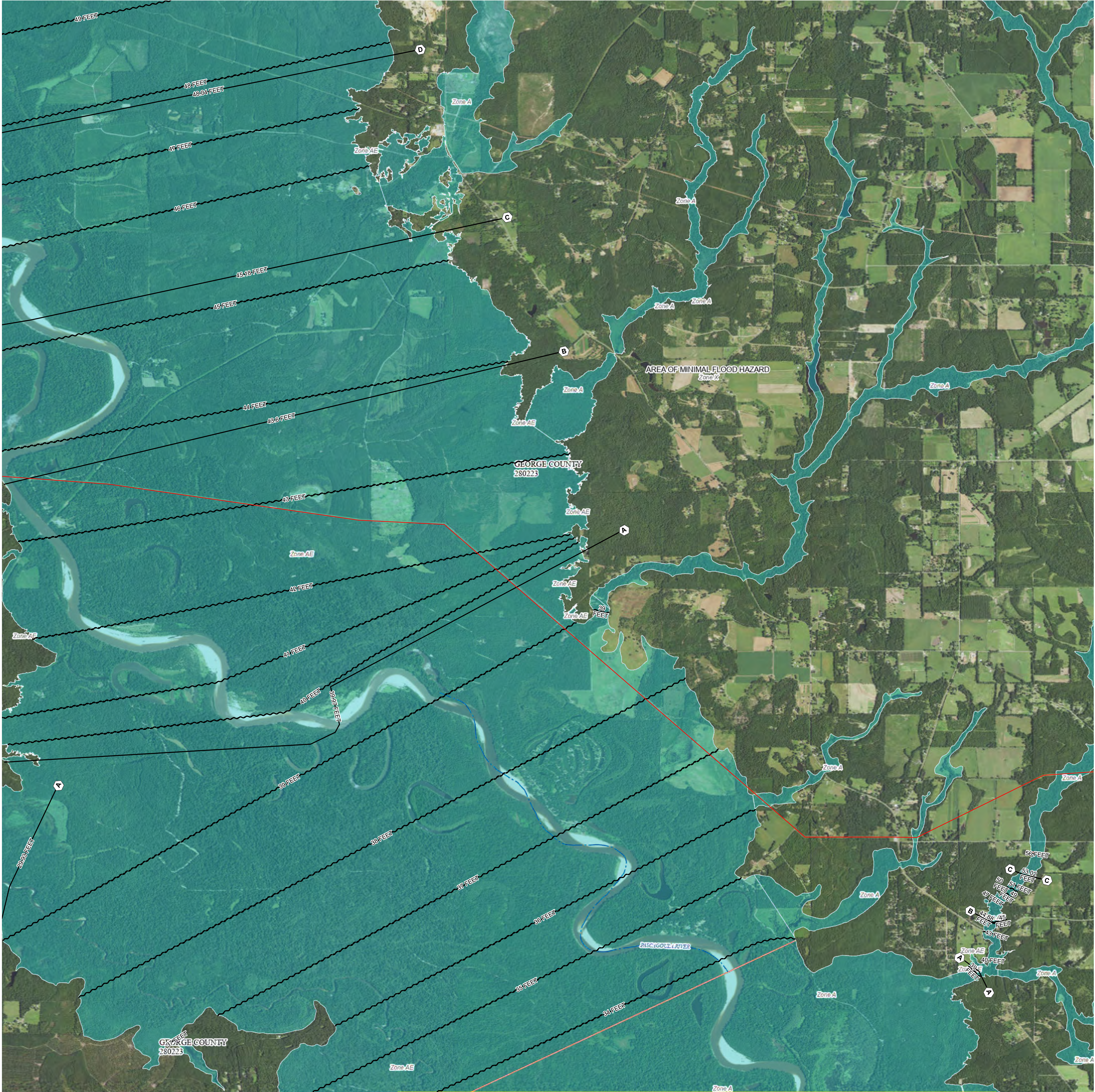
SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

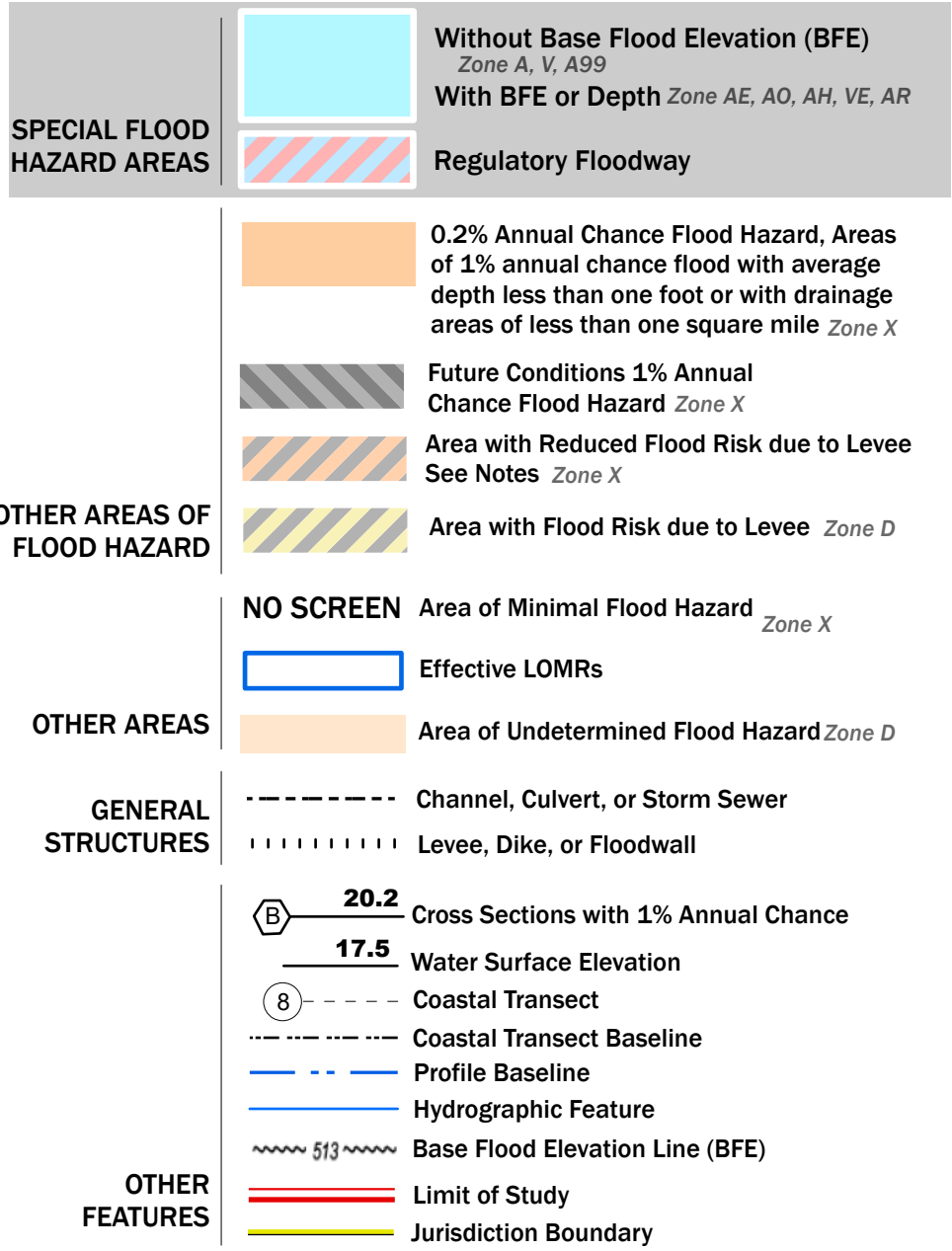
GEORGE COUNTY, MISSISSIPPI
AND INCORPORATED AREAS
PANEL 175 OF 375

Panel Contains:		
COMMUNITY	NUMBER	PANEL
GEORGE COUNTY	280223	0175



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT



NOTES TO USERS

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For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

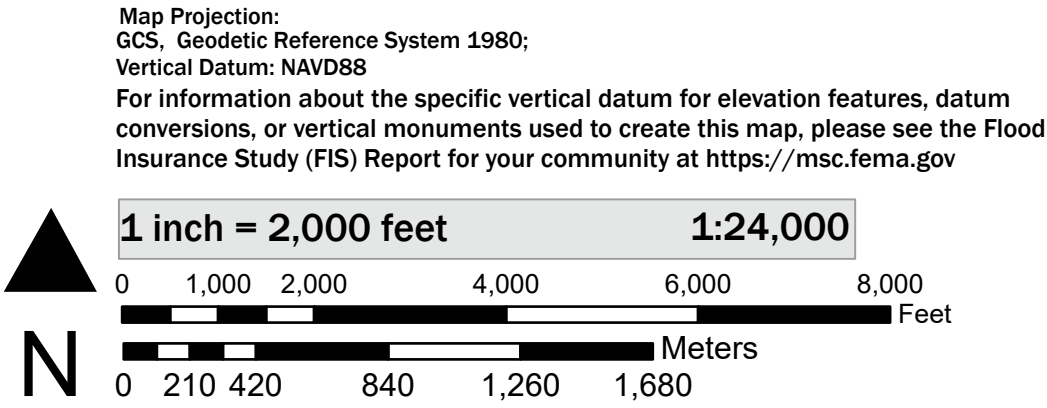
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This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **3/3/2021 2:59 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

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SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP


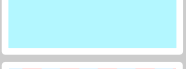






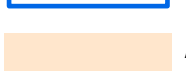
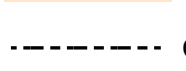

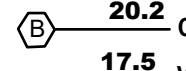
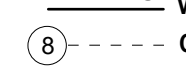
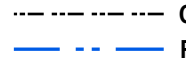
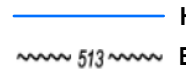
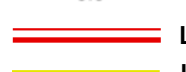





GEORGE COUNTY, MISSISSIPPI
AND INCORPORATED AREAS
PANEL 200 OF 375

Panel Contains:		
COMMUNITY	NUMBER	PANEL
GEORGE COUNTY	280223	0200



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee See Notes <i>Zone X</i>
OTHER AREAS		Area with Flood Risk due to Levee <i>Zone D</i>
		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
OTHER AREAS		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance
		Water Surface Elevation
OTHER FEATURES		Coastal Transect
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature
OTHER FEATURES		Base Flood Elevation Line (BFE)
		Limit of Study
OTHER FEATURES		Jurisdiction Boundary
		Jurisdiction Boundary

NOTES TO USERS

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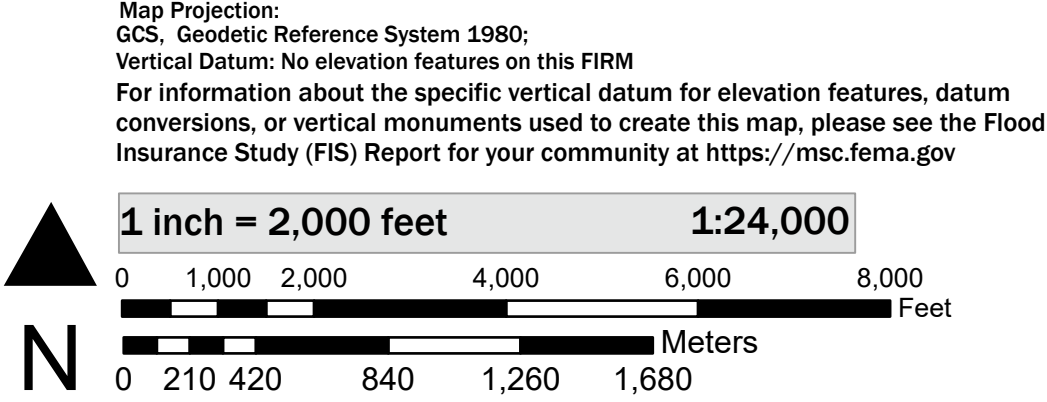
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SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

GEORGE COUNTY, MISSISSIPPI
AND INCORPORATED AREAS
PANEL 225 OF 375


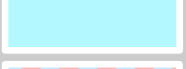





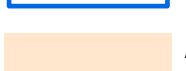
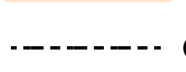

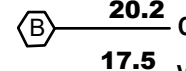
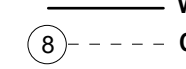
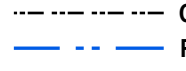

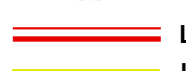






Panel Contains:		
COMMUNITY	NUMBER	PANEL
GEORGE COUNTY	280223	0225



88°28'5.81"W 30°52'N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP
FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
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		Levee, Dike, or Floodwall
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OTHER FEATURES		Coastal Transect
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature
OTHER FEATURES		Base Flood Elevation Line (BFE)
		Limit of Study
OTHER FEATURES		Jurisdiction Boundary
		Jurisdiction Boundary

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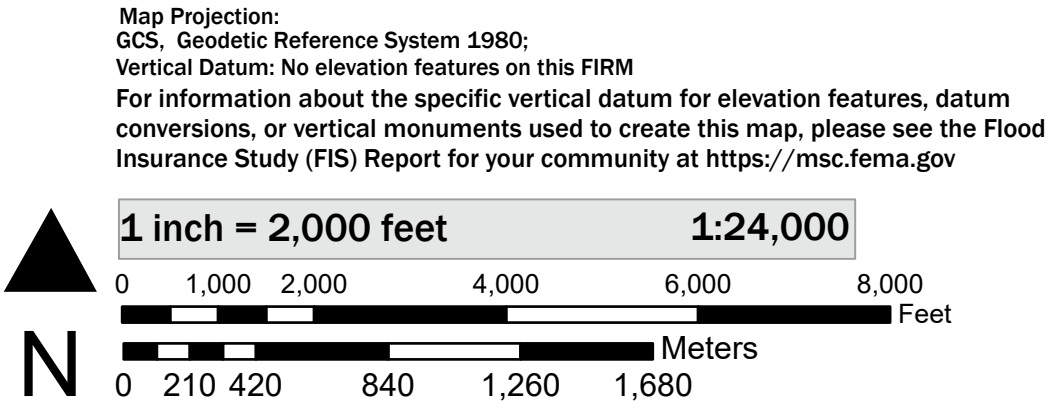
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This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **9/14/2021 3:31 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

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SCALE



NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP

PANEL 100 OF 375

Panel Contains:		
COMMUNITY	NUMBER	PANEL
GEORGE COUNTY	280223	0100

MAP NUMBER
28039C0100E
EFFECTIVE DATE
September 19, 2012

Appendix F

Wetlands

Hank Sossaman

From: Smith, Amiee Parker CIV USARMY CESAM (USA) <amiee.p.smith@usace.army.mil>
Sent: Friday, February 5, 2021 8:36 PM
To: Hank Sossaman
Cc: Smith, Amiee Parker CIV USARMY CESAM (USA)
Subject: NWP Default Verification Email for SAM-2020-00469-APS, Rebuild Lines 71, 72, and 73 Project
Attachments: 2017-NWP-12 - Mobile District Summary.pdf

{***External Email - Use caution clicking links or opening attachments***}

www.sam.usace.army.mil/Missions/Regulatory.aspx

{***External Email - Use caution clicking links or opening attachments***}

Mr. Sossaman,

This email is regarding the pre-construction notification submitted on behalf of Cooperative Energy for the rebuild of lines 71, 72, and 73 in George County, Mississippi.

If timber mats are placed to provide support for heavy equipment while crossing wetland habitat and/or conducting the replacement activity, a temporary discharge of fill material would be considered to have occurred (even if the mats are removed after construction). Should the mats, if used, remain in place, a permanent discharge of fill material would occur and mitigation may be required. In accordance with Nationwide Permit, General Condition 32, the proposed project is considered verified by default because we failed to respond within 45 days of receipt of the complete pre-construction notification.

It is incumbent upon the permittee to ensure they adhere to all conditions/restrictions of NWP 12, and the Nationwide Permit General conditions, Regional Conditions, and WQC and CZM certifications. I have attached a copy of NWP 12 with associated conditions for easy reference.

We do not intend to send further documentation of this decision.

If you have any questions about this correspondence, feel free to contact me.

Amice P. Smith

Senior Project Manager | Biologist

U.S. Army Corps of Engineers, Mobile District

Regulatory Division, South Mississippi Branch

Biloxi Field Office

Office: (228) 523-4024

Mobile: (228) 627-8641

Web: www.sam.usace.army.mil/Missions/Regulatory.aspx



DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

May 1, 2020

REPLY TO
ATTENTION OF:

To: Hank Sossaman
hsossaman@cooperativeenergy.com

Subject: Acknowledgement of Receipt – SAM-2020-00469 (Cooperative Energy - George County)

The U.S. Army Corps of Engineers (USACE), Mobile District has received your application for a Department of the Army permit. This request has been assigned to the South Mississippi Branch with the following file number, which should be referred to in all future correspondence with this office concerning this project: File Number: **SAM-2020-00469**

For any questions or additional correspondence related to this project, please contact us by phone at 251-690-2658, or by email at Regulatory.MS@usace.army.mil. Our preferred method for receiving documents sent to this office is through the aforementioned email address. However, if you require submittal by paper copy, please send your correspondence to the following address:

U.S. Army Corps of Engineers
Mobile District, Regulatory Division
P.O. Box 2288
Mobile, Alabama 36628

For additional information on our Regulatory program, visit our website at:
www.sam.usace.army.mil/Missions/Regulatory.aspx

Sincerely,

Mobile District
Regulatory Division



Cooperative
ENERGY
April 27, 2020

Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

Planning Division
U.S. Army Engineer District, Mobile
P.O. Box 2288
Mobile, AL 36628

Dear Sir or Madam:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

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The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

Cooperative Energy will be required to submit an environmental assessment of the project to the financial lender to address the NEPA requirements.

Please advise if there are any environmental constraints affecting floodplains or any other concerns Planning may have.

Of note: We are also notifying the Regulatory Division of this proposed project to ensure comprehensive due diligence is afforded this project by the Corps.

Best Regards,

A handwritten signature in black ink, appearing to read 'Hank Sossaman', with a stylized, looping flourish.

Hank Sossaman
Environmental Specialist



One Office Bldg. (5900)

Hattiesburg, MS 39401-5500

(601) 266-2000

CooperativeEnergy.com

April 27, 2020

Regulatory Division
U.S. Army Engineer District, Mobile
P.O. Box 2288
Mobile, AL 36628

Dear Sir or Madam:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage upgrades become necessary.

Cooperative Energy will be required to submit an environmental assessment of the project to the financial lender.

By copy of this notice to the Regulatory Branch, Cooperative Energy would like to request confirmation of the assumption that the transmission line for the project would qualify for authorization under the Nationwide Permit Number 12 (Reference 33 CFR Part 330) or that a permit is not required for this activity.

We do not anticipate any discharge into the waters of the United States during construction of this project.

We know there will be no footings / padding associated with the project.

We do not anticipate the project having any impacts to navigable waters.

A response to this request would be greatly appreciated.

Best regards,

A handwritten signature in black ink, appearing to read 'Hank Sossaman', with a large, stylized loop at the end.

Hank Sossaman
Environmental Specialist

Enclosures

DESCRIPTION OF UNITS

TM-12-50 - The unit is 1,000 feet in length and fifty (50.0) feet in width (to be measured fifty (50.0) feet on one side of the pole line or centerline of the clearing or underbrush, tree removal and such tree trimmings is required, so that the right-of-way except tree stumps which shall not exceed four (4) inches in height, shall be cleared from the ground up on one side of the line of poles carrying conductors (See Detail A, Drawing TM-12-2A). The length of actual clearing shall be measured in a straight line parallel to the horizontal line between poles or centerline of structures and across the maximum dimension foliage cleared projected to the ground lines (See Detail b. Drawing TM-12-12A). All trees and underbrush across the width of the right-of-way shall be considered to be grouped together as a single length in measuring the total length of clearing (See Detail C. Drawing TM-12-2A). Spaces along the right-of-way in which no trees are to be removed, trimmed or underbrush cleared shall be omitted from the total measurement. All lengths thus arrived at added together and divided by 1,000 shall give the number of TM-50.0 units of clearing. The Bidder shall not remove or trim shade, fruit or ornamental trees unless so directed by the Engineer in writing. See Clearing Specifications.

TM-12-100 - This unit is identical with TM-12-50 except the full width of the right-of-way to be cleared shall be one hundred (100) feet wide (to be measured fifty (50.0) feet on either side of the pole line or centerline of the structures.

TM-12-1AG - This unit is for fertilizing and seeding designated areas along the right-of-way, with a unit to be one (1) acre. The square footage of multiple areas shall be added to determine the total acres.

TM-13 - The unit, for purpose of quoting, is one tree of varying diameter and height off the right-of-way. The Engineer will select those trees off the right-of-way that he deems to be a hazard to the line and will designate them to bidder in writing as danger trees. When so designated, the Bidder shall remove such trees except that the Bidder shall not trim and not remove shade, fruit or ornamental trees unless otherwise directed by the Engineer in writing. (See Drawings TM-12-2A and TM-13 for examples of danger trees).

TM-13A - This unit is 1000 feet in length on one side of the right-of-way. Unless designated, all trees and limbs overhanging the vertical line of the right-of-way shall be trimmed from ground level to the highest point of the tree.

TM-3 - One (1) 3 1/2" x 6'6" CCA or heavy duty metal "T" post installed in new or existing fence. The post unit, when installed in an existing fence, shall include necessary hardware for attachment of the existing wire as well as the repealing and reinstallation of the existing wire.

TM-5 - One (1) 5 ½" x 8'0" CCA fence corner post installed in new or existing fence. The post unit, when installed in an existing fence, shall include necessary hardware for attachment of the existing wire as well as the repealing and reinstallation of the existing wire.

TM-BW - One hundred (100) feet, #12 ½ 19 gauge four (4) point "Lyman" barb wire, installed in new or existing fence. The wire unit shall include necessary hardware for attaching to new or existing post.

TM-FW - One hundred (100) feet, #12 ½ gauge field wire, installed in new or existing fence. The wire unit shall include necessary hardware for attaching to new or existing post.

TM-50 - One (1) fence opening per standard TM-51 drawing. See specification drawing in back of book.

TM-51 - One (1) fence gate opening per standard TM-51 drawing. See specification drawing in back of book.

Additional Requirements. (When specifying TM units denote type of disposal)

- A. Trees, brush, branches and refuse shall, without delay, be disposed of by the following method:
 - 1. By lopping and scattering.
 - 2. By grinding and mulching.

RIGHT-OF-WAY CLEARING SPECIFICATIONS

Where TM-12-50 (50' Unit), TM-12-100 (100' Unit), TM-13 (Danger Tree Unit), and TM-13A (Side Trimming Unit) are specified, the right-of-way shall be cleared in accordance with instructions contained in the Proposal and, in addition, in accordance with the following specifications:

As specified in the Proposal, in preparing the right-of-way, trees shall be removed, underbrush cleared, tree stumps, which shall not exceed four inches (4") in height, shall be cleared from the ground up and of the width specified in the Description of Units. The Contractor shall not trim or remove shade, fruit, or ornamental trees unless so directed by the Owner.

All trees and brush within the limits of the right-of-way shall be cut by hand operated power saws, manual cut, shear cut, or bush hogged. Any brush or tree shear cut must be sheared in such a manner that the trunk is completely sheared. Mechanical equipment may be used to move and spread brush and trees for and after lopping. Regardless of the clearing method used, the soil must be left in such condition as to not cause erosion.

On this right-of-way one hundred (100) feet, all trees cut shall have all branches removed from the trunk, then all brush, branches, etc., shall, without delay, be disposed of by lopping and scattering over the outer edge of the right-of-way, leaving in every case a thirty-five (35) foot strip, seventeen and one half (17.5) feet either side of the centerline of the new pole line, that is clear of all felled trees, brush, branches and debris. All trees that are cut shall, after all branches have been removed, be left parallel to the centerline on the two outer portions.

Trees and brush must not be left in ditches or streams nor on fence or in woods, roads, or trails. Any trees or brush cut on highway right-of-way must be removed from the right-of-way and the highway right-of-way left completely free of any trees, branches, or debris.

Areas designated to be seeded, TM-12-1AG, shall be fertilized with 13-13-13 at the rate of 400 lbs. per acre. Seeding shall be applied based on "The Mississippi Planting Guide" for the specific time of year.

Where TM-13, Danger Tree Unit, is specified all cut trees shall, where practical, be pulled back on the outer edge of the right-of-way and all branches removed from the trunk. All branches will then be disposed of by lopping and scattering over the outer edge of the right-of-way while the tree will be left parallel to the center line. Where it is impractical to pull the cut danger tree back on the right-of-way, the branches shall be removed from the trunk.

Where TM-13A (Sidetrimming Unit) is specified, branches removed shall be disposed of by lopping and scattering. Unless designated, all trees with limbs overhanging the vertical line of the right-of-way shall be trimmed from ground level to the highest point of the tree.

Fences cut or damaged during construction, where gaps are not used, will be repaired by the Contract before leaving the property at the end of the day. Such repairs will be made so as to leave the fence in a stock proof condition.

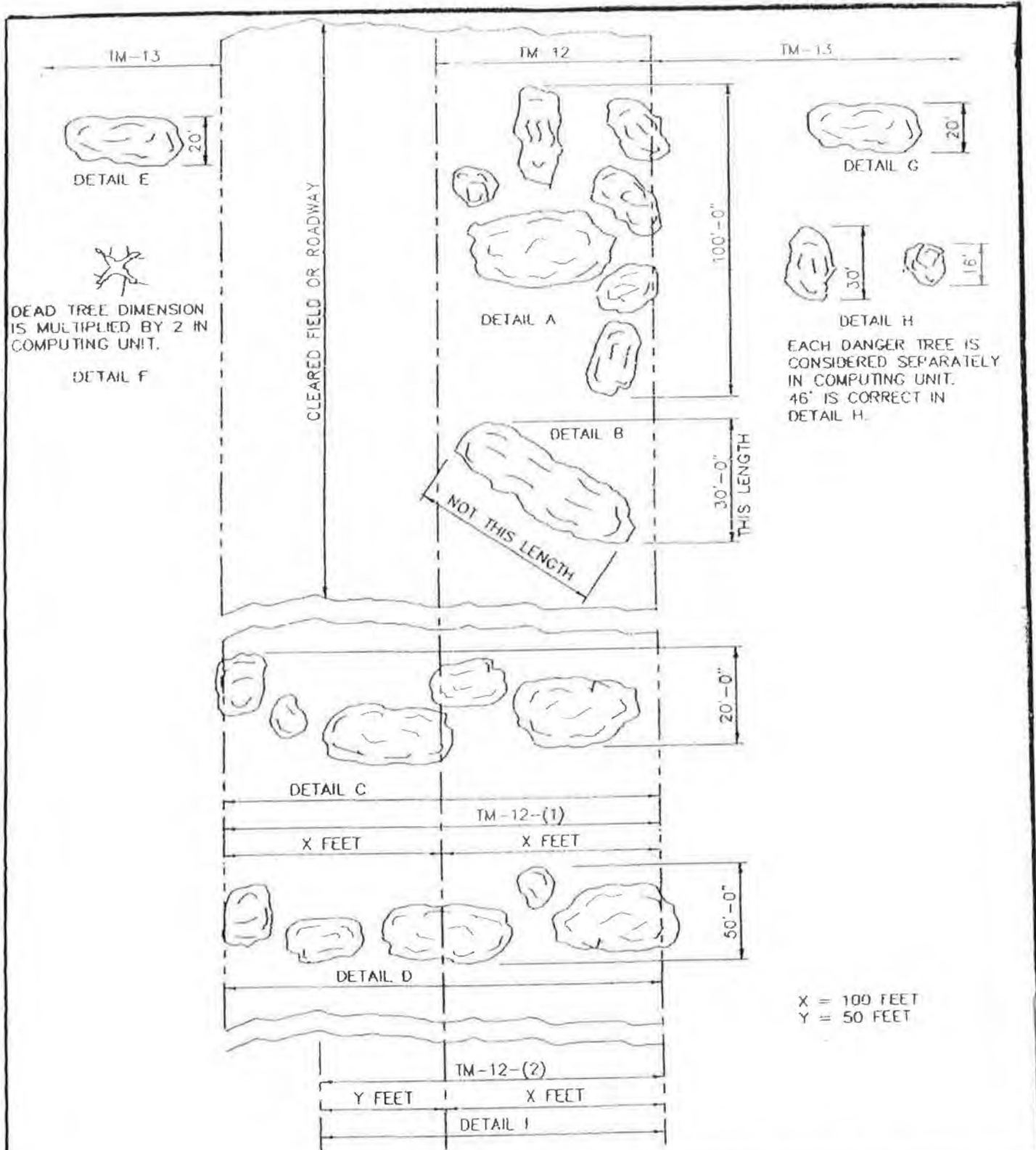
When it is necessary to open or remove a fence during the work, the fence will be braced on each side before opening or removal. Bracing shall be done in accordance with Drawing TM-50.

Gaps shall be placed in fences where opening or removal of fences are necessary to work, at the direction of the Owner. Gaps will be constructed as per Drawing TM-50 at locations as directed by the Owner.

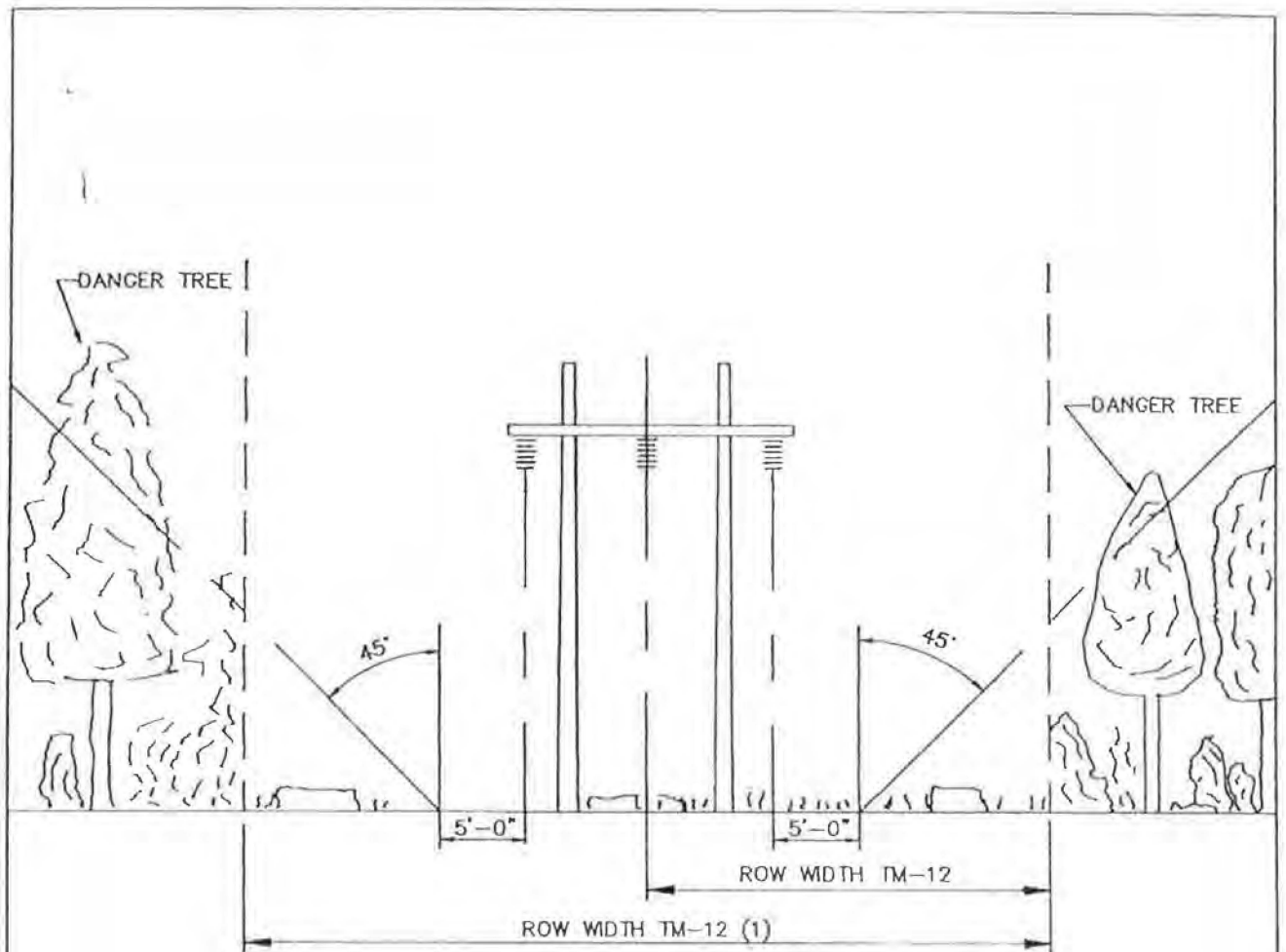
Gates shall be placed in fence where opening or removal of fences are necessary to work, at the direction of the Owner. Gates will be installed as per Drawing TM-51 at locations as directed by the Owner.

In areas where fences are attached to or partially supported by trees or brush which must be cleared, contractor shall install necessary metal or treated CCA fence posts and repair or replace any broken or deteriorated wire necessary to place fence in "stock proof" condition across the right-of-way using new wire if necessary. In case of question as to the necessity of replacement or deteriorated wire, the Owner's decision shall be final.

All wetland areas are to be cleared in accordance with guidelines stated in the wetland permit. No access roads, temporary or permanent are to be constructed in designated wetland areas. Trees and brush are not to be disturbed below ground level in designated wetland areas. When possible, all heavy equipment will not be allowed in wetland area, although if heavy equipment is mandatory it could have to be properly matted in order to minimize soil disturbance.



					SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION		
					HATTIESBURG, MISSISSIPPI		
					GUIDE		
					MEASURING RIGHT OF WAY CLEARING UNITS		
					DRAWN BY	TRANSMISSION LINE DETAILS	
					T.E. BOWLER		
					CHECKED BY	SCALE	DRAWING NUMBER
						NONE	
					APPROVED BY	DATE	
						11-20-50	
3	REVISED DETAIL 1			3-27-91	TEB		TM-12-2A
142	REVISION	APPROVED	DATE	BY			



NOTE

ENGINEER WILL DESIGNATE ALL DANGER TREES WHICH MAY BE REMOVED OR TOPPED AT OPTION OF CONTRACTOR. IN APPROXIMATELY LEVEL TERRAIN TREES WHICH WOULD REACH WITHIN FIVE FEET OF A POINT UNDERNEATH THE OUTSIDE CONDUCTOR IN FALLING ARE EXAMPLES OF DANGER TREES.

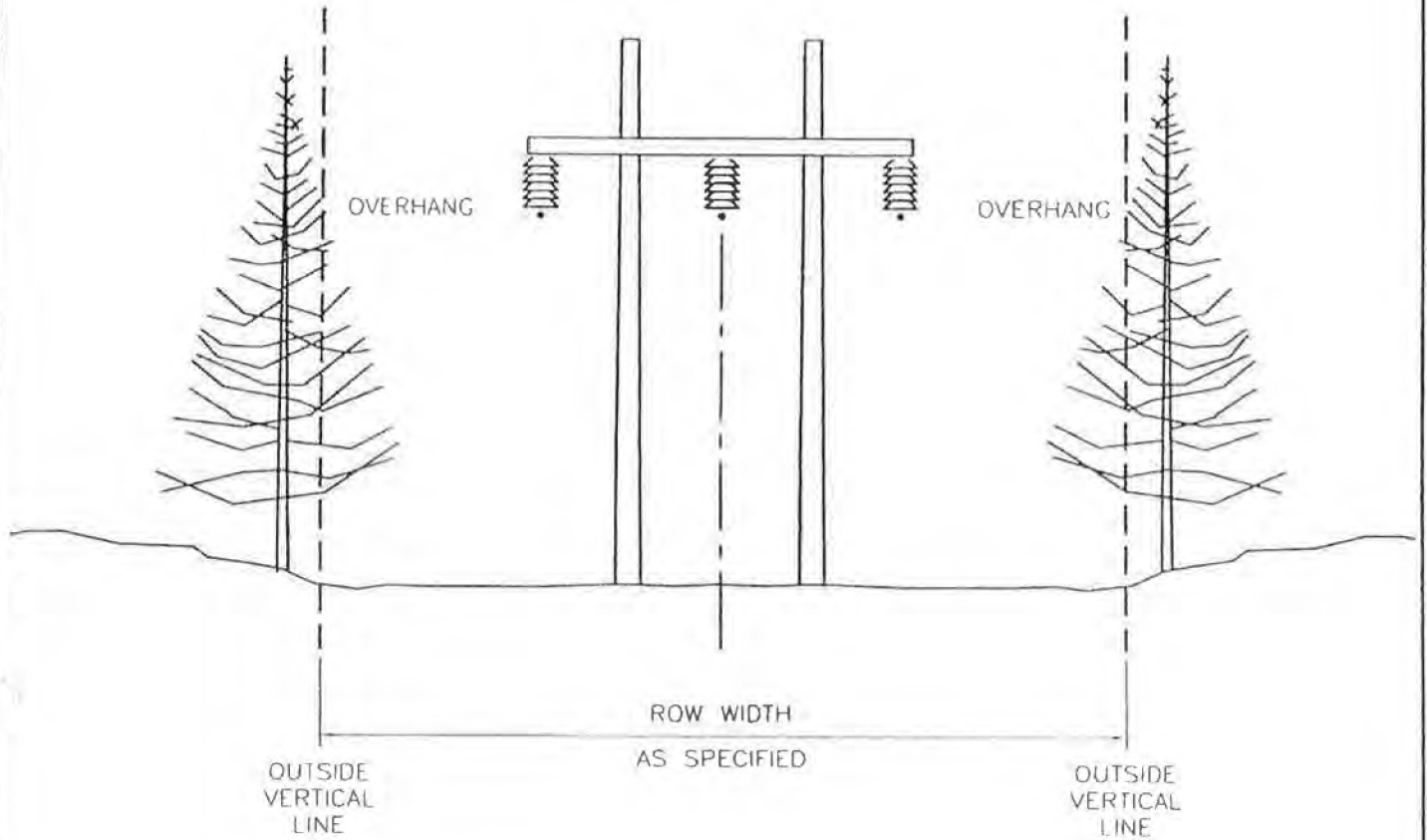
AS DIRECTED BY THE ENGINEER, PORTIONS OF THE RIGHT-OF-WAY MUST BE CUT SO THAT STUMPS WILL NOT PREVENT THE PASSAGE OF TRACTORS AND TRUCKS ALONG THE RIGHT-OF-WAY.

THE UNIT FOR CLEARING RIGHT-OF-WAY OF SPECIFIED WIDTH IS TM-12 OR TM-12(1).

THE UNIT FOR CLEARING DANGER TREES IS TM-13

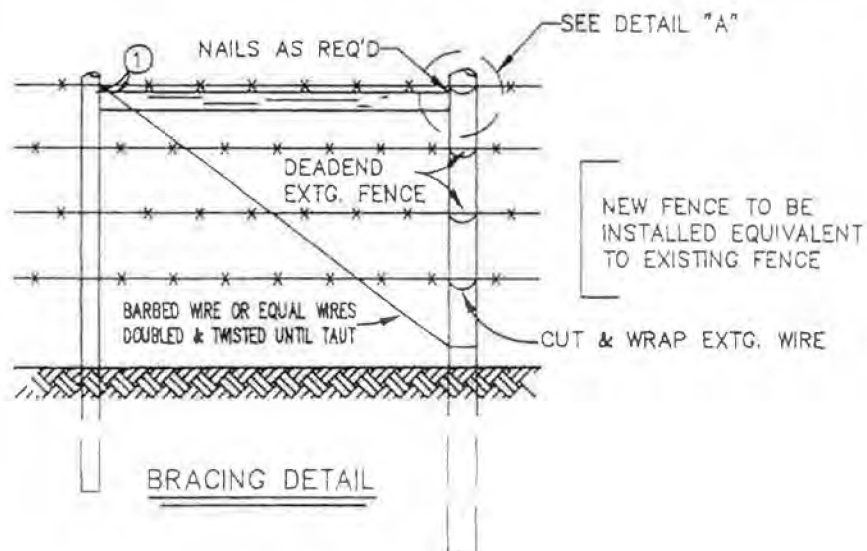
TRANSMISSION LINE CLEARING RIGHT-OF-WAY GUIDE			
2	REDRAWN TO COMPUTER	2-88	SCALE: NONE
NO.	REVISION	DATE	DATE: 2-17-88
			TM-12,12-1,13

TM-13A.DWG

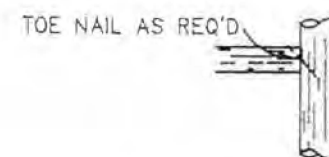


1. ALL TREES FOUND TO BE OVERHANGING THE VERTICAL LINE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE TREE SHALL BE TRIMMED SO THAT NO LIMBS WILL BE EXTENDING PAST THE OUTSIDE RIGHT-OF-WAY EDGES.
2. THE UNIT FOR SIDETRIMMING RIGHT-OF-WAY IS TM-13A

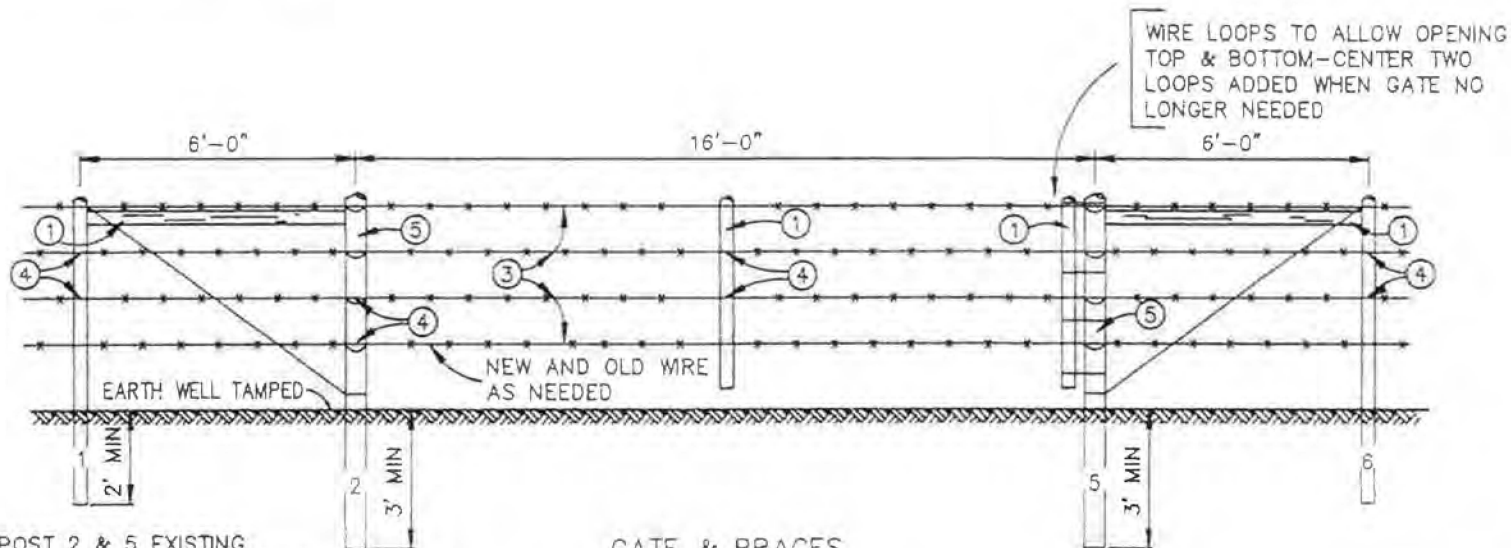
					SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION HATTIESBURG, MISSISSIPPI		
					RIGHT-OF-WAY EDGE TRIMMING GUIDE		
					DRAWN BY T E BOWER	TRANSMISSION ROW CLEARING	
					CHECKED BY FBW	SCALE NONE	DRAWING NUMBER TM-13A
					APPROVED BY RKA	DATE AUG 13, 2001	SHEET 1 OF 1
NO	REVISION	APPROVED	CHKD	DATE	BY		



BILL OF MATERIALS		
REF.	QUANTITY	DESCRIPTION
1	6	POST, CREO. PINE, 3 1/2" DIA. TOP X REQ. LENGTH
2	1/2#	NAILS, 10 PENNY, COMMON
3	AS REQ.	FENCING, EQUAL TO EXISTING FENCE
4	1/2#	FENCE STAPLES
5	2	POST, CREO. PINE, 5 1/2" DIA. TOP X REQ. LENGTH

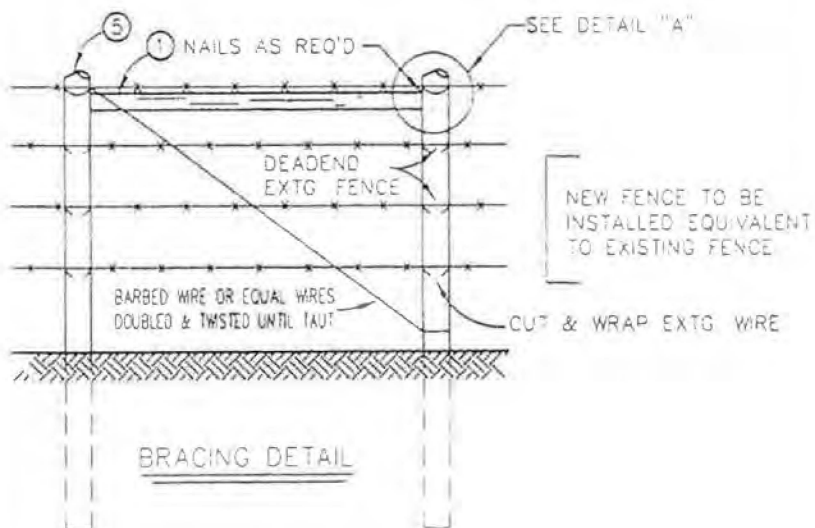


DETAIL "A"

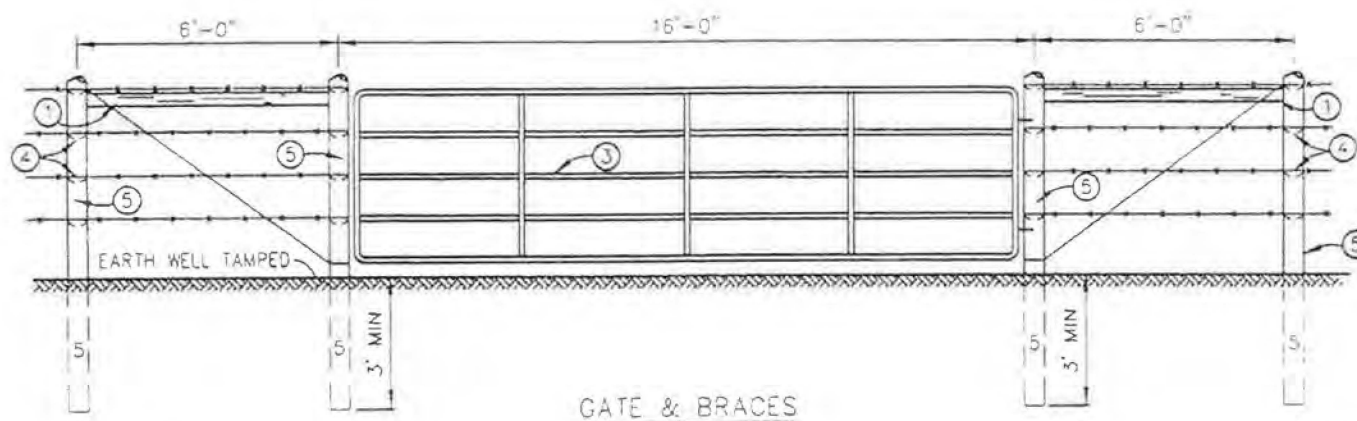
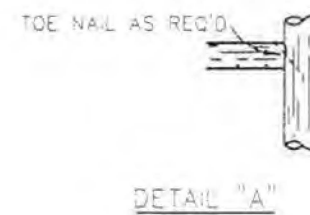


NOTE: AT POST 2 & 5 EXISTING WIRE SHALL BE CUT, WRAPPED AROUND POST & SECURELY STAPLED. WIRE SPRADER CAN BE USED IN PLACE OF CENTER POST, (3)

FENCE OPENING
STANDARD "GAP"



BILL OF MATERIALS		
REF.	QUANTITY	DESCRIPTION
1	2	POST, CCA, PINE, 3 1/2" DIA, TOP X REQ. LENGTH
2	1/2#	NAILS, 10 PENNY, COMMON
3	1	16' PIPE GATE, APPROVED BY OWNER
4	1/2#	FENCE STAPLES
5	4	POST, CCA, PINE, 5 1/2" DIA, TOP X REQ. LENGTH



NOTE: AT BRACES, EXISTING WIRE SHALL BE CUT, WRAPPED AROUND POST & SECURELY STAPLED.

FENCE OPENING
STANDARD GATE

TM-51

National Wetlands Inventory

surface waters and wetlands

ABOUT GET DATA PRINT FIND LOCATION

BASEMAPS >

MAP LAYERS >

- ☒ Wetlands 1 2
- ☒ Riparian 1 2
- ☐ Riparian Mapping Areas 1 2
- ☒ Data Source 1 2
 - ☐ Source Type
 - ☐ Image Scale
 - ☐ Image Year
- ☐ Areas of Interest 2
- ☐ FWS Managed Lands 1 2
- ☐ Historic Wetland Data 1 2

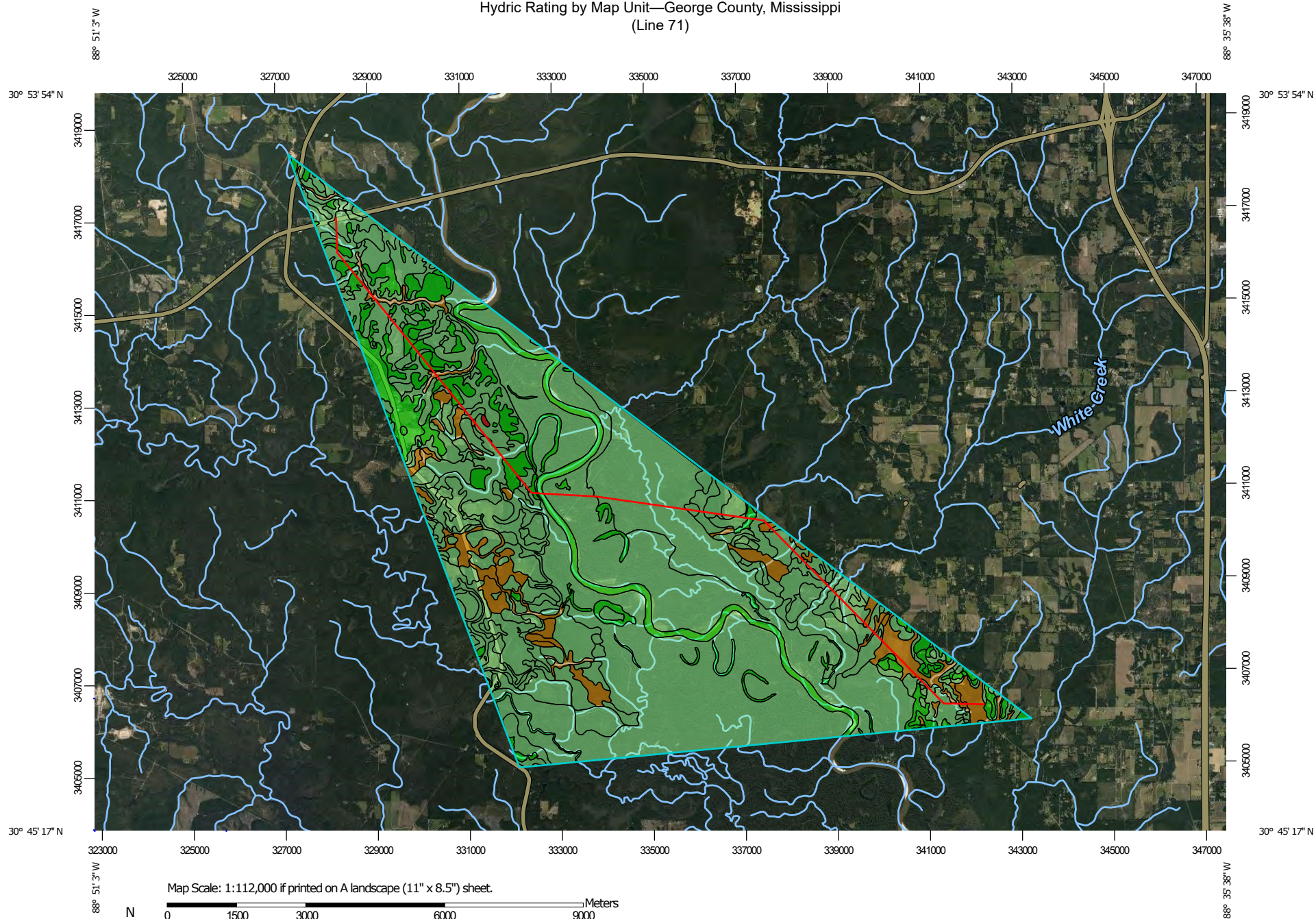
Measure

LEGEND

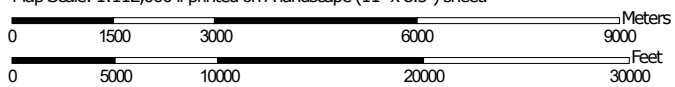
1:144,448
30.796 | -88.757

U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov | Esri, HERE, Garmin | Earthstar Geograph... **esri** POWERED BY

Hydric Rating by Map Unit—George County, Mississippi (Line 71)



Map Scale: 1:112,000 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



**Natural Resources
Conservation Service**


Web Soil Survey
National Cooperative Soil Survey

8/25/2021
Page 1 of 6

Hydric Rating by Map Unit—George County, Mississippi (Line 71)







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Soil Rating Lines

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available






Soil Rating Points

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: George County, Mississippi
 Survey Area Data: Version 17, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 3, 2018—Nov 16, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AgB	Alaga loamy sand, 0 to 5 percent slopes	2	19.2	0.1%
AgC	Alaga loamy sand, 5 to 8 percent slopes	2	16.6	0.1%
AgD	Alaga loamy sand, 8 to 12 percent slopes	2	17.1	0.1%
AlB	Alaga loamy sand, terrace, 0 to 5 percent slopes	2	190.3	1.0%
AmE	Alaga complex, 12 to 20 percent slopes	5	18.7	0.1%
AnA	Angie silt loam, 0 to 2 percent slopes	5	100.2	0.5%
AtA	Atmore fine sandy loam, 0 to 2 percent slopes	85	578.1	3.1%
BaA	Basin fine sandy loam, 0 to 2 percent slopes	5	359.2	1.9%
BeA	Benndale fine sandy loam, 0 to 2 percent slopes	5	1,224.6	6.5%
BeB	Benndale fine sandy loam, 2 to 5 percent slopes	5	669.5	3.5%
BeC	Benndale fine sandy loam, 5 to 8 percent slopes	5	218.0	1.2%
BnC	Benndale complex, 5 to 12 percent slopes	2	149.8	0.8%
CaA	Cahaba fine sandy loam, 0 to 2 percent slopes	2	114.0	0.6%
Dh	Dorovan-Johnston association	85	654.8	3.5%
EsB	Eustis loamy sand, 0 to 5 percent slopes	0	333.8	1.8%
EsD	Eustis loamy sand, 5 to 12 percent slopes	2	94.8	0.5%
EsE	Wadley-Heidel complex, 8 to 15 percent slopes	5	0.4	0.0%
HaA	Harleston fine sandy loam, 0 to 2 percent slopes	10	677.8	3.6%
HaB	Harleston fine sandy loam, 2 to 5 percent slopes	11	27.3	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ln	Lenoir silt loam	6	525.0	2.8%
MJU	Mooreville, Jena and Urbo soils, 0 to 3 percent slopes, frequently flooded	10	6,870.6	36.3%
MIA	McLaurin fine sandy loam, 0 to 2 percent slopes	0	439.1	2.3%
MIB	McLaurin fine sandy loam, 2 to 5 percent slopes	0	502.1	2.7%
MIC	McLaurin fine sandy loam, 5 to 8 percent slopes	0	174.6	0.9%
MID	McLaurin fine sandy loam, 8 to 12 percent slopes (heidel)	5	10.4	0.1%
MyA	Myatt silt loam, 0 to 2 percent slopes (daleville)	100	7.0	0.0%
RuA	Rumford sandy loam, 0 to 2 percent slopes (latonia)	3	113.9	0.6%
SnB	Susquehanna fine sandy loam, 2 to 5 percent slopes	0	27.7	0.1%
SnC	Susquehanna fine sandy loam, 5 to 8 percent slopes	0	44.6	0.2%
SnD	Susquehanna fine sandy loam, 8 to 12 percent slopes	2	0.0	0.0%
SuD	Susquehanna complex, 5 to 12 percent slopes	2	162.0	0.9%
SxE	Susquehanna-Benndale complex, 12 to 17 percent slopes	2	1,369.5	7.2%
UuB	Urbo-Mooreville-Una complex, 0 to 3 percent slopes, frequently flooded	20	2,197.4	11.6%
W	Water	0	1,018.4	5.4%
Totals for Area of Interest			18,943.6	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present


Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydric Rating by Map Unit—George County, Mississippi (Line 72)







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Soil Rating Lines

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available





Soil Rating Points

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: George County, Mississippi
 Survey Area Data: Version 17, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 3, 2018—Nov 16, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AgB	Alaga loamy sand, 0 to 5 percent slopes	2	140.6	1.3%
AgC	Alaga loamy sand, 5 to 8 percent slopes	2	35.2	0.3%
AgD	Alaga loamy sand, 8 to 12 percent slopes	2	8.6	0.1%
AlB	Alaga loamy sand, terrace, 0 to 5 percent slopes	2	25.5	0.2%
AmE	Alaga complex, 12 to 20 percent slopes	5	150.9	1.4%
AtA	Atmore fine sandy loam, 0 to 2 percent slopes	85	135.1	1.3%
BaA	Basin fine sandy loam, 0 to 2 percent slopes	5	14.3	0.1%
BeA	Benndale fine sandy loam, 0 to 2 percent slopes	5	112.0	1.1%
BeB	Benndale fine sandy loam, 2 to 5 percent slopes	5	80.3	0.8%
BeC	Benndale fine sandy loam, 5 to 8 percent slopes	5	88.6	0.8%
BnB	Benndale complex, 2 to 5 percent slopes	0	36.3	0.3%
BnC	Benndale complex, 5 to 12 percent slopes	2	226.5	2.2%
CaE	Cahaba fine sandy loam, 12 to 17 percent slopes (smithdale)	5	280.6	2.7%
Dh	Dorovan-Johnston association	85	1,149.1	11.0%
EsB	Eustis loamy sand, 0 to 5 percent slopes	0	599.4	5.7%
EsD	Eustis loamy sand, 5 to 12 percent slopes	2	354.7	3.4%
EsE	Wadley-Heidel complex, 8 to 15 percent slopes	5	618.3	5.9%
HaA	Harleston fine sandy loam, 0 to 2 percent slopes	10	69.9	0.7%
HaB	Harleston fine sandy loam, 2 to 5 percent slopes	11	9.5	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
LeB	Lakeland sand, 0 to 5 percent slopes	0	3.5	0.0%
LeE	Lakeland sand, 5 to 17 percent slopes	3	20.3	0.2%
LuA	Lucedale sandy loam, 0 to 2 percent slopes	5	868.1	8.3%
LuB	Lucedale sandy loam, 2 to 5 percent slopes	7	275.4	2.6%
MIA	McLaurin fine sandy loam, 0 to 2 percent slopes	0	1,112.9	10.6%
MIB	McLaurin fine sandy loam, 2 to 5 percent slopes	0	1,830.0	17.5%
MIC	McLaurin fine sandy loam, 5 to 8 percent slopes	0	547.6	5.2%
MID	McLaurin fine sandy loam, 8 to 12 percent slopes (heidel)	5	389.7	3.7%
MyA	Myatt silt loam, 0 to 2 percent slopes (daleville)	100	32.5	0.3%
SuB	Susquehanna complex, 2 to 5 percent slopes	2	176.4	1.7%
SuD	Susquehanna complex, 5 to 12 percent slopes	2	340.2	3.3%
SuE	Susquehanna complex, 12 to 17 percent slopes	2	174.0	1.7%
SxE	Susquehanna-Benndale complex, 12 to 17 percent slopes	2	464.3	4.4%
W	Water	0	77.1	0.7%
Totals for Area of Interest			10,451.2	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

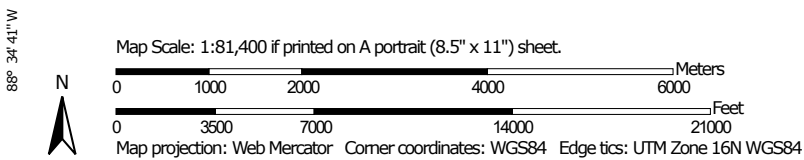
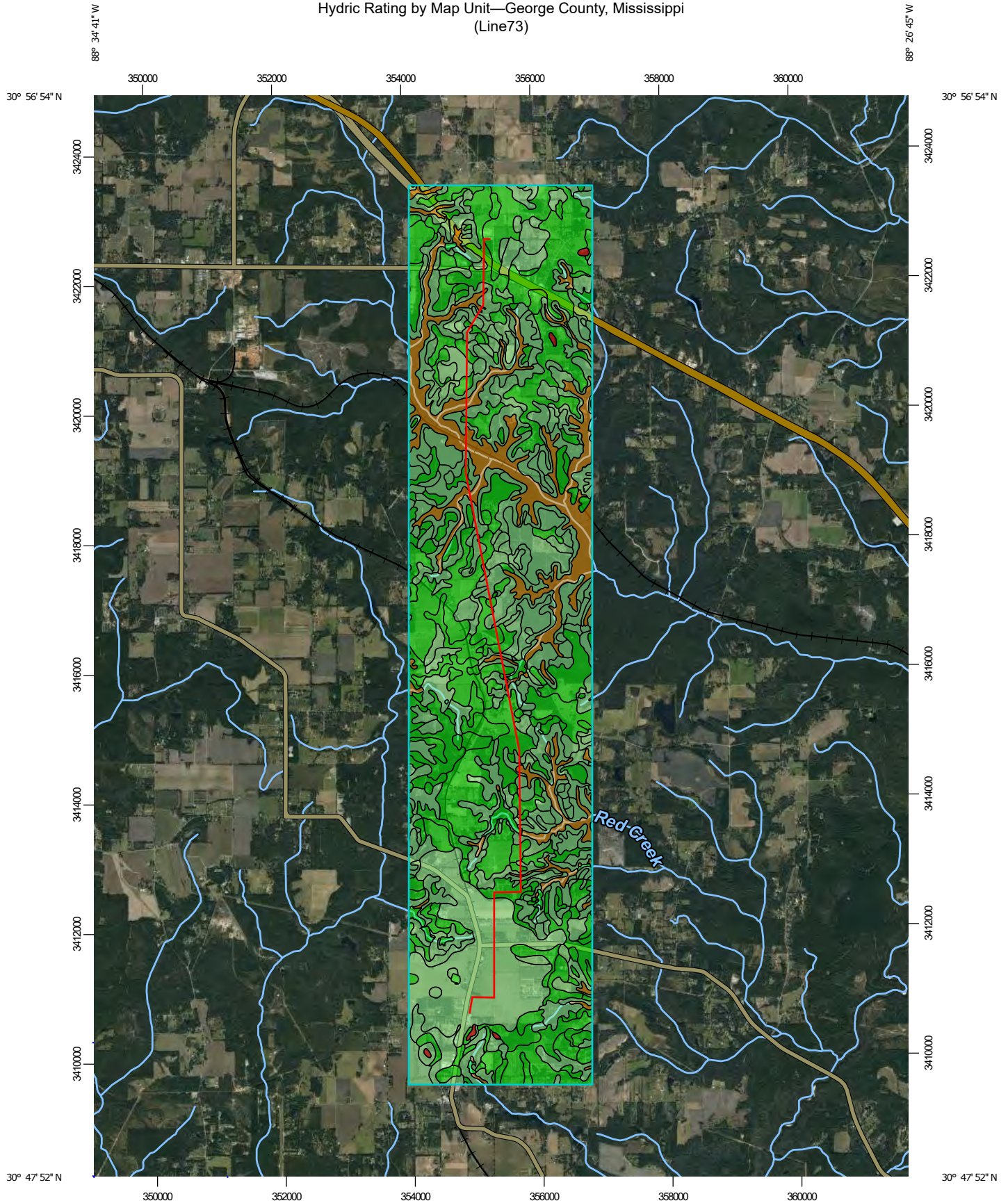
Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydric Rating by Map Unit—George County, Mississippi (Line73)



**Natural Resources
Conservation Service**


Web Soil Survey
National Cooperative Soil Survey

8/25/2021
Page 1 of 6

Hydric Rating by Map Unit—George County, Mississippi (Line73)







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Soil Rating Lines

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available






Soil Rating Points

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AgB	Alaga loamy sand, 0 to 5 percent slopes	2	357.0	3.6%
AgC	Alaga loamy sand, 5 to 8 percent slopes	2	158.6	1.6%
AgD	Alaga loamy sand, 8 to 12 percent slopes	2	66.7	0.7%
AlB	Alaga loamy sand, terrace, 0 to 5 percent slopes	2	15.3	0.2%
AmE	Alaga complex, 12 to 20 percent slopes	5	329.7	3.4%
BeA	Benndale fine sandy loam, 0 to 2 percent slopes	5	56.1	0.6%
BeB	Benndale fine sandy loam, 2 to 5 percent slopes	5	75.3	0.8%
BeC	Benndale fine sandy loam, 5 to 8 percent slopes	5	14.5	0.1%
BnB	Benndale complex, 2 to 5 percent slopes	0	54.5	0.6%
BnC	Benndale complex, 5 to 12 percent slopes	2	273.0	2.8%
CaE	Cahaba fine sandy loam, 12 to 17 percent slopes (smithdale)	5	373.1	3.8%
Dh	Dorovan-Johnston association	85	1,002.0	10.2%
EsB	Eustis loamy sand, 0 to 5 percent slopes	0	1,444.5	14.8%
EsD	Eustis loamy sand, 5 to 12 percent slopes	2	434.5	4.4%
EsE	Wadley-Heidel complex, 8 to 15 percent slopes	5	531.0	5.4%
LeB	Lakeland sand, 0 to 5 percent slopes	0	89.9	0.9%
LeE	Lakeland sand, 5 to 17 percent slopes	3	203.7	2.1%
LuA	Lucedale sandy loam, 0 to 2 percent slopes	5	1,039.4	10.6%
LuB	Lucedale sandy loam, 2 to 5 percent slopes	7	190.5	1.9%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MIA	McLaurin fine sandy loam, 0 to 2 percent slopes	0	440.4	4.5%
MIB	McLaurin fine sandy loam, 2 to 5 percent slopes	0	1,340.7	13.7%
MIC	McLaurin fine sandy loam, 5 to 8 percent slopes	0	346.6	3.5%
MID	McLaurin fine sandy loam, 8 to 12 percent slopes (heidel)	5	275.9	2.8%
MyA	Myatt silt loam, 0 to 2 percent slopes (daleville)	100	16.3	0.2%
SnB	Susquehanna fine sandy loam, 2 to 5 percent slopes	0	22.7	0.2%
SnC	Susquehanna fine sandy loam, 5 to 8 percent slopes	0	19.8	0.2%
SuB	Susquehanna complex, 2 to 5 percent slopes	2	14.8	0.2%
SuD	Susquehanna complex, 5 to 12 percent slopes	2	23.7	0.2%
SxE	Susquehanna-Benndale complex, 12 to 17 percent slopes	2	486.1	5.0%
W	Water	0	94.1	1.0%
Totals for Area of Interest			9,790.4	100.0%

Description

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Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower



STATE OF MISSISSIPPI
TATE REEVES
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, EXECUTIVE DIRECTOR
December 11, 2020

Ms. Jennifer Mallard
U.S Army Corps of Engineers,
Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Re: US Army COE,
Nationwide Permit No. 57
WQC No. WQC2020087

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Office of Pollution Control (OPC) issues this Certification, after public notice and opportunity for public hearing, to the U.S. Army Corps of Engineers, an applicant for a Federal License or permit to conduct the following activity:

US Army COE, Nationwide Permit No. 57

Nationwide Permits (NWP) are general permits issued on a nationwide basis to streamline the authorization of activities that have no more than minimal and cumulative adverse effects on the aquatic environment. The U.S. Army Corps of Engineers issues NWPs to authorize certain activities that require Department of the Army permits under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899.

57. Electric Utility Line and Telecommunications Activities. Activities required for the construction, maintenance, repair, and removal of electric utility lines, telecommunication lines, and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Electric utility lines and telecommunication lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of electric utility lines and telecommunication lines. There must be no change in preconstruction contours of waters of the United States. An “electric utility line and telecommunication line” is defined as any cable, line, or wire for the transmission for any purpose of

electrical energy, telephone, and telegraph messages, and internet, radio, and television communication.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the electric utility line or telecommunication line crossing of each waterbody.

Electric utility line and telecommunications substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with an electric utility line or telecommunication line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead electric utility line or telecommunication line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead electric utility line or telecommunication line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of electric utility lines or telecommunication lines, including overhead lines and substations, in nontidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States.

This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-

construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize electric utility lines or telecommunication lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Electric utility lines or telecommunication lines constructed over section 10 waters and electric utility lines or telecommunication lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing electric utility lines or telecommunication lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing electric utility lines or telecommunication lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the electric utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) A section 10 permit is required; or (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the electric utility line is constructed, installed, or maintained in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the electric utility line to protect navigation.

Note 2: For electric utility line or telecommunications activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Electric utility line and telecommunications activities must comply with 33 CFR 330.6(d).

Note 3: Electric utility lines or telecommunication lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the electric utility line or telecommunication line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: This NWP authorizes electric utility line and telecommunication line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For overhead electric utility lines and telecommunication lines authorized by this NWP, a copy of the PCN and NWP verification will be provided by the Corps to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 7: For activities that require preconstruction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require preconstruction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23). [NWP No. 57, WQC2020087].

The Office of Pollution Control certifies that the above-described activity will be in compliance with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act and Section 49-17-29 of the Mississippi Code of 1972, if the applicant complies with the following conditions:

1. In cases where a PCN is required, a PCN shall be provided to the Department of Environmental Quality (Department) for projects that include channel work within waterways found on the latest version of the State of Mississippi's Section 303(d) List of Impaired Water Bodies for sediment or biological impairment or waterways with a completed Total Maximum Daily Load (TMDL) for sediment or biological impairment. This notification shall include the following:
 - a. Justification of why the impacts cannot be avoided;
 - b. Proposed best management practices that would minimize the impacts to receiving sensitive waters; and
 - c. Compensatory mitigation primarily along the same reach of stream or on another impaired stream within the same drainage basin. (Statement A, D, & E) (11 Miss. Admin. Code Pt. 6, R. 1.3.4.A(3))
2. The permittee shall obtain appropriate wastewater permits and/or approvals for the proposed activity prior to the commencement of construction activities. (Statement C) (11 Miss. Admin. Code Pt. 6, R. 1.1.1.B.)
3. For projects greater than five acres of total ground disturbances including clearing, grading, excavating, or other construction activities, the applicant shall obtain the necessary coverage under the State of Mississippi's Large Construction Storm Water General NPDES Permit. For projects greater than one, to less the five acres of total ground disturbances including clearing, grading, excavating, or other construction activities, the applicant shall follow the conditions and limitations of the State of Mississippi's Small Construction Storm Water General NPDES Permit. No construction activities shall begin until the necessary approvals and/or permits have been obtained. (Statement B & C) (11 Miss. Admin. Code Pt. 6, R. 1.1.1.B.)
4. Turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units. (Statement A) (11 Miss. Admin. Code Pt. 6, R. 2.2.A.)
5. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse. (Statement A) (11 Miss. Admin. Code Pt. 6, R. 2.2.A.(3))
6. The Department shall be furnished copies of authorizations of coverages under this NWP. (Statement D) (11 Miss. Admin. Code Pt. 6, R. 1.3.4.A.(4))

As part of the Scope of Review for Application Decisions, 11 Mississippi Administrative Code Part 6, Rule 1.3.4(B), the above conditions are necessary for the Department to ensure that appropriate measures will be taken to eliminate unreasonable degradation and irreparable harm to waters of the State, such that the activity will not meet the criteria for denial:

- (A) The proposed activity permanently alters the aquatic ecosystem such that water quality criteria are violated and/or it no longer supports its existing or classified uses. An example is the channelization of streams
- (B) Nonpoint source/storm water management practices necessary to protect water quality have not been proposed.
- (C) Denial of wastewater permits and/or approvals by the State with regard to the proposed activities.
- (D) The proposed activity in conjunction with other activities may result in adverse cumulative impacts.
- (E) The proposed activity results in significant environmental impacts which may adversely impact water quality.

The Office of Pollution Control also certifies that there are no limitations under Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the 401 Water Quality Certification. If you have any questions, please contact the Department.

Sincerely,



Krystal Rudolph, P.E., BCEE
Chief, Environmental Permits Division

KR:ld

cc: U.S. Army Corps of Engineers, Mobile District
U.S. Army Corps of Engineers, Memphis District
U.S. Army Corps of Engineers, Nashville District
U.S. Army Corps of Engineers, New Orleans District
Department of Marine Resources
U.S. Fish and Wildlife Service
U.S. Environmental Protection Agency, Region 4

Appendix G

Cultural Resources

Cultural Resources Phase I Report Sensitive Data Statement

Due to the potential for the “A Phase I Cultural Resources Survey for the Lucedale Transmission Line Rebuild, George County, Mississippi” to contain sensitive cultural resources and historic properties information, a copy of this report has been provided to RUS for their file.



MISSISSIPPI DEPARTMENT OF
ARCHIVES & HISTORY

P.O. Box 571
Jackson, MS 39205-0571
601-576-6850
mdah.ms.gov

July 13, 2021

Wetland Consulting Services, Inc.
21 Autumn Run
Hattiesburg, Mississippi 39402

RE: A Phase I Cultural Resources Survey for the Lucedale Transmission Line
Rebuild, (RUS) MDAH Project Log #06-197-21 (05-011-20), Report
#21-0226, George County

Dear Sir or Madam:

We have reviewed the May 25, 2021, cultural resources survey by Emily Warner, Principal Investigator, with TerraXplorations, Inc., received on June 29, 2021, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After reviewing the information provided, MDAH concurs with the determination that site [REDACTED] will not be adversely impacted with the following conditions: areas of site [REDACTED] with the ROW of the transmission line should have placement of wooden matting for heavy equipment to use and that the site should be avoided during wet conditions to protect from soil disturbance. The project will avoid placing transmission support structures within the site boundaries. Additionally, no clearing of vegetation will be required due to the transmission line being reconstructed from the existing one. MDAH also concurs that sites [REDACTED] and [REDACTED] be listed as NRHP unknown until the boundaries of the sites can be established but that the project should not have an adverse impact to these sites. Sites [REDACTED] and [REDACTED] are both ineligible for listing in the NRHP and the project will have no effect to these two sites. With these conditions, we have no reservations with the project.

There is a possibility that unrecorded cultural resources may be encountered during the undertaking. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13.

Please provide a copy of this letter to Ms. Warner. If you have any questions, please let me know.

Sincerely,

Hal Bell
Review and Compliance Officer

FOR: Katie Blount
State Historic Preservation Officer

Hank Sossaman

"Crom: Hal Bell <hbell@mdah.ms.gov>
Sent: Monday, June 1, 2020 4:16 PM
To: Hank Sossaman
Subject: Re: MDAH Project Log #03-119-20

{***External Email - Use caution clicking links or opening attachments***}

Mr. Sossaman,

Your project was logged into our system on May 4, 2020. MDAH Project Log #05-011-20.

The Mississippi Department of Archives and History values our role in the Section 106 Process and our relationships with our State and Federal Partners. Due to the COVID situation, our office remains under a "Safer at Home" policy, and our staff continue to work from home unless an emergency situation requires our presence in the office. While the Historic Preservation Division made every effort to meet our requirements under Section 106 of the National Historic Preservation Act during the transition to working remotely, limitations of personnel and technology have resulted in our need to extend our comment period in accordance to guidance from the Advisory Council and the National Conference of State Historic Preservation Officers. Thus, projects received for comment between the period of March 15 through June 12, 2020 **may** take up to 45 days for a response. Additionally, our submission process has transitioned to digital only. We apologize for the inconvenience but remain committed to being effective consultation partners in historic Preservation.

Please don't hesitate to reach out if you have any questions.

Hal Bell

Review and Compliance Officer
Historic Preservation Division
Mississippi Department of Archives and History
Office: (601) 576-6957
Email: hbell@mdah.ms.gov

From: Hank Sossaman <hsossaman@cooperativeenergy.com>
Sent: Monday, June 1, 2020 3:34 PM
To: Hal Bell <hbell@mdah.ms.gov>
Subject: RE: MDAH Project Log #03-119-20

Hi Mr. Bell,

We have yet to receive a response to our Request for Cultural Resource Assessment for our proposed Rebuild Lines 71, 72, & 73 in George County.

:hanks,
Hank

Hon. Aimee K. Jorjani
Chairman

Leonard A. Forsman
Vice Chairman

John M. Fowler
Executive Director



BLANKET EXTENSION REGARDING SECTION 106 REVIEW OF UNDERTAKINGS RESPONDING TO COVID-19 EMERGENCY AND DISASTER DECLARATIONS

April 3, 2020

The regulations implementing Section 106 of the National Historic Preservation Act (Section 106), at 36 C.F.R. 800.12, provide for special procedures that may be used by federal agencies to comply with Section 106 regarding undertakings that respond to a disaster or emergency declared by the President, a tribal government, or the governor of a state, or which respond to other immediate threats to life or property. Those procedures may be used for undertakings that will be implemented within 30 days after the declaration. However, that time period can be extended by the Advisory Council on Historic Preservation (ACHP).

Pursuant to 36 C.F.R. 800.12(d), the ACHP has extended, until May 29, 2020, that time period for all federal agencies regarding undertakings that respond to the following emergencies and disaster declarations on the outbreak of coronavirus disease (COVID-19):

- National emergency declared by President Trump on March 13, 2020 under 501(b) of the Stafford Disaster Relief and Emergency Assistance Act (42 USC 5121-5207) and the National Emergencies Act (50 U.S.C. 1601 et seq.); and
- All COVID-19 emergencies or disaster declarations that (a) have already been issued by the President, a tribal government, or the governor of a state, or (b) may be issued by any of them while this extension is in place.

This extension applies to state or local government officials that serve as the agency official for Section 106 compliance in place of the relevant federal agency.

Again, the Section 106 emergency procedures under 36 C.F.R. 800.12 can only be used for undertakings that respond to COVID-19 emergencies or disaster declarations. Such undertakings may include projects such as new construction or adaptation of existing buildings for COVID-19 testing, treatment, or quarantining; creation of COVID-19 temporary facilities; and development of infrastructure specifically built to serve COVID-19 facilities and services.

The emergency procedures under 36 C.F.R. 800.12 give federal agencies two options for handling the mentioned types of undertakings that respond to a declared emergency or disaster:

- (a) follow an existing agreement regarding such emergencies or disasters, including a Programmatic Agreement, approved by the ACHP; or, absent such an agreement,
- (b) follow a very shortened process whereby they notify the ACHP, the relevant State or Tribal Historic Preservation Officer (SHPO/THPO), Indian tribe, and Native Hawaiian organization (NHO) prior to the undertaking, and afford them an opportunity to comment within seven days of

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov



HISTORIC PRESERVATION DIVISION
P. O. BOX 571
Jackson, MS 39205-0571
Phone 601-576-6940 Fax 601-576-6955
Website: mdah.ms.gov

June 17, 2020

Mr. Hank Sossaman
Cooperative Energy
Post Office Box 15849
Hattiesburg, Mississippi 39404-5849

RE: Proposed rebuilding of existing Cooperative Energy 69kV transmission line in an existing right-of-way, (RUS), MDAH Project Log #05-011-18, George County

Dear Mr. Sossaman:

We have reviewed your April 27, 2020, request for a cultural resources assessment, received May 4, 2020, for the above referenced project, in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, due to the topography of the project area and presence of recorded sites in close proximity, it is our recommendation that a cultural resources survey should be performed by a qualified cultural resources professional. The resulting report should reference the project log number above on the title page.

A list of individuals who have represented themselves as being willing and qualified to do archaeological survey work in Mississippi will be furnished upon request. A copy of this letter should be made available to the contracting archaeologist(s).

If you have any questions, please contact us.

Sincerely,

A handwritten signature in black ink that reads "Hal Bell". The signature is written in a cursive, slightly slanted style.

Hal Bell
Review and Compliance Officer

FOR: Katie Blount
State Historic Preservation Officer



Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

April 27, 2020

Inter-agency Coordinator
Mississippi Department of Archives and History
P. O. Box 571
Jackson, MS 39205-0571

Re: *Proposed Reconstruction of Cooperative Energy 69kV
Transmission Lines in George County, Mississippi;*

Dear Sir or Madam:

Enclosed is the completed form *Request for Cultural Resources Assessment* on subject proposed reconstruction. If you need any additional information, please advise.

We are writing this new correspondence to ensure the project will be processed under Section 106.

Best Regards,

A handwritten signature in black ink, appearing to read "Hank Sossaman".

Hank Sossaman
Environmental Specialist

Enclosures

Rec'd _____

Ch# _____

NIE _____

Survey _____

REQUEST FOR CULTURAL RESOURCE ASSESSMENT

Forwarding of this completed form to the Mississippi State Historic Preservation Officer constitutes a request for a cultural resources assessment in accordance with 36 CFR 800. This assessment, independent of the A-95 review, is required for all construction projects which will be funded, assisted, or licensed by a federal agency.

I. Applicant Cooperative Energy County of project G_e_o_r_g_e
 Applicant's address P.O., O., B.--'o<- "x, 1-'--'5..., 8'-'4"'9'----- City Hattiesburg, Mississippi Zip 39404
 Contact person H_a_n_k_S_o_s_s_a_m_a_n Telephone (601) 268-2083
 Contact person's address, if different from applicant's _____
 Street, P.O. Box _____ City _____ Zip _____
 If applicant is not a federal agency, to which federal agency is applicant applying: Rural Utilities Service (RUS)
 Federal Program: _____ Circle type of assistance so _____ Other _____
 Signature of applicant or contact person requesting this assessment— _____ I _____

Date April 27, 2020

- II. i. Briefly describe this project. Rebuild existing transmission line in an existing right-of-way in Jefferson Davis, Lawrence, and Marion Counties, Mississippi, See item 12.
 If program involves more than one project/activity, complete separate assessment for each one.
2. Has the identical project been previously submitted for cultural resource assessment? YES NO ?
 (If YES, enclose copy of State Historic Preservation Officer's comments, if available, and disregard remaining questions.)
3. Project Location
 a. Attach a county, city, or USGS quadmap indicating the precise location of the project and the acreage involved. If program involves more than one project/activity, one map indicating all projects is sufficient.
 b. Approximately how many acres are in the project area? Acres -359
 c. If the project is outside city limits, give a quarter-by-quarter section, township, and range description (not necessary if the project map contains the information),
See items 12
4. To your knowledge, has a cultural resources survey been conducted in the project area? YES NO ?
 (if YES, attach survey report.)
5. a. Will the project involve an addition to, or destruction, alteration, or renovation of any structure? If NO, proceed to item 6. YES NO x
 b. Was affected structure built before World War II? If NO, proceed to item 6. yes _ no _
 c. Who owns the structure?
 d. What was the approximate date of construction?
 e. Attach snapshots of front and rear elevations; another snapshot should indicate the location of any proposed addition/alteration.
 f. Have plans and specifications for the renovation, alteration, or addition been completed? Yes no
 g. Attach plans. (Plans for a new structure to replace a demolished one should not be attached.)

6. a. Will construction take place adjacent to any structure which is approximately fifty years old or older? If NO, proceed to item 7. YES _NO _X_
b. Give address of structure (s), and, if known owner's name and, telephone. _____

c. Give approximate construction date of structure(s) _____
d. Attach snapshots of structure(s) and on project map indicate its location in relation to the project.

7. Has the ground at the project location been previously developed, graded, or disturbed (other than in connection with any structure described in item 5)? YES..JLNO ____
If YES, describe disturbed/developed portion (graded, formed, etc.) and indicate on project map. A electric transmission line was constructed in 1974 on the proposed

project site.

8. a. Will this project necessitate the acquisition of fill material? If NO, proceed to item 9. YES_No..x____
b. Approximately how many cubic yards of material will be acquired? cu.yd._____
c. Has the site from which material will be acquired been selected? If NO, proceed to item 9. Yes no _X_
d. Indicate borrow area(s) on project map and GIVE APPROXIMATE ACREAGE of each borrow site. Acres_____
e. Has material been taken from the borrow area(s) for other projects? Yes_ no _
9. a. Does this project involve road/street construction? If NO, proceed to item 10. YES_NO...IL_
b. Give special attention to item 6 AND indicate on project map each:
1. New right-of-way
2. New streeVroad construction
3. StreeVroad to be overlaid
4. StreeVroad to be widened

10. Will this project affect any property which is of apparent educational or scientific interest? YES ____NO ..x..._
If YES, describe the interest (geological, biological, etc.) _____

11. Describe the present use and condition of the property. Utility right-of-way.

12. If necessary, elaborate on the above questions, and/or include any additional information which you think would be helpful in the review of this project.

The existing transmission line 71 begins in the South½ of the North½ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest¼ of the Southwest¼ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest ¼ of the Southwest ¼ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast ¼ of the Northeast ¼ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast¼ of the Southeast¼ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast ¼ of the Northeast¼ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

State Historic Preservation Officer
Att'n: Interagency Coordinator
Mississippi Department of Archives and History
P. O. Box 571
Jackson, MS 39205
Telephone (601) 354-7326



Hank Sossaman

Environmental Specialist

Cooperative Energy

PO Box 15849

Hattiesburg, MS, 39404

Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

1/3/2022

Cyrus Ben

Chief

Mississippi Band of Choctaw Indians

PO Box 6010

Choctaw, MS, 39350

Subject: USDA RD RUS Applicant THPO Recommended Finding of No Adverse Effects
Rebuild Lines 71, 72, & 73
George County, Mississippi

Dear Chief Ben:

Cooperative Energy plans to seek financial assistance from the USDA Rural Development (RD), Rural Utilities Service (RUS) under its Electric Program for Rebuild Lines 71, 72, & 73 (Project). This Project will not be using the NPA.¹

The proposed action will occupy a total of approximately three hundred fifty nine (359) acres of land in George County, Mississippi. Approximately seven-tenths (0.68) acres of land will be converted directly. This direct conversion will be augured transmission support pole and guy-wire anchor placement. This project will be located within existing overhead electric transmission line right-of-way (ROW). There is no applicable address for the project area. This project will reconstruct three existing 69kV transmission lines by Cooperative Energy in George County. Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek) were identified in the Useful Life Study contained within the 2011 Long Range Transmission Study as near their end of useful life. The clearing of trees will not be necessary during construction. The ROW for these transmission lines was cleared and established decades ago. Some routine vegetation management may be necessary prior to beginning

¹ *Nationwide Programmatic Agreement among the U.S. Department of Agriculture Rural Development Programs, National Conference of State Historic Preservation Officers, Tribal Signatories, and The Advisory Council on Historic Preservation for Sequencing Section 106 (NPA).*

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If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

etc.). "Indirect" effects to historic properties are those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable.

At the direction of RUS, on 1/3/2022 Cooperative Energy notified the following Indian tribes about the Rebuild Lines 71, 72, & 73: Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, and the Mississippi Band of Choctaw Indians. The Coushatta Tribe of Louisiana's Section 106 Coordinator responded with an email dated September 16, 2021. This email from the Coushatta Tribe states that based on the proposed project information Cooperative Energy provided that the project will not have a negative impact on any archaeological, historic, or cultural resources of the Coushatta People. Accordingly, the Tribe does not wish to consult further on this project. If any inadvertent discoveries are made in the course of the project, the Tribe expects to be contacted immediately and reserve the right to consult with Cooperative Energy at that time. No response has been received from the Choctaw Nation of Oklahoma or the Mississippi Band of Choctaw.

The enclosed report titled, A Phase I Cultural Resources Survey for the Lucedale Transmission Line Rebuild, George County, Mississippi describes the results of the survey of the APE. An Early Mississippian shell midden site was discovered outside of the APE and in the north portion of the transmission line right-of-way corridor. [Cooperative Energy will protect the shell midden site by avoiding it. If avoidance cannot be accomplished, wooden matting will be deployed to cover the site if equipment and/or materials will be required to traverse the site. Based on the findings of the Phase I Survey Report issued May 2021, a finding of no adverse effect in accordance with 36 CFR § 800.5(b) is appropriate for the referenced project.

Accordingly, the Cooperative Energy is submitting a recommended finding of no adverse effect in accordance with 36 CFR § 800.5(b) and supporting documentation for review and consideration by your Tribe.

Please provide your concurrence or objection, **electronically** within 30 days of your receipt of this recommended finding. In accordance with 36 CFR § 800.3(c)(4), RUS will proceed to the next step in review if we do not receive a response from you within thirty days. Please direct any questions you may have to Ms. Katherine Mathis at katherine.mathis@usda.gov.

Sincerely,



Hank Sossaman
Environmental Specialist
Cooperative Energy

Enclosure(s)

CC



Hank Sossaman

Environmental Specialist

Cooperative Energy

PO Box 15849

Hattiesburg, MS, 39404

Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

1/3/2022

Ian Thompson

THPO

Choctaw Nation of Oklahoma

PO Box 1210

Durant, OK, 74702-1210

Subject: USDA RD RUS Applicant THPO Recommended Finding of No Adverse Effects
Rebuild Lines 71, 72, & 73
George County, Mississippi

Dear THPO Thompson:

Cooperative Energy plans to seek financial assistance from the USDA Rural Development (RD), Rural Utilities Service (RUS) under its Electric Program for Rebuild Lines 71, 72, & 73 (Project). This Project will not be using the NPA.¹

The proposed action will occupy a total of approximately three hundred fifty nine (359) acres of land in George County, Mississippi. Approximately seven-tenths (0.68) acres of land will be converted directly. This direct conversion will be augured transmission support pole and guy-wire anchor placement. This project will be located within existing overhead electric transmission line right-of-way (ROW). There is no applicable address for the project area. This project will reconstruct three existing 69kV transmission lines by Cooperative Energy in George County. Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek) were identified in the Useful Life Study contained within the 2011 Long Range Transmission Study as near their end of useful life. The clearing of trees will not be necessary during construction. The ROW for these transmission lines was cleared and established decades ago. Some routine vegetation management may be necessary prior to beginning

¹ *Nationwide Programmatic Agreement among the U.S. Department of Agriculture Rural Development Programs, National Conference of State Historic Preservation Officers, Tribal Signatories, and The Advisory Council on Historic Preservation for Sequencing Section 106 (NPA).*

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reconstruction of the project. The existing width of the ROW will remain at the current 100-foot width for each of the three transmission lines. The total linear length of the project will be approximately twenty nine and one-half (29.45) miles long. No land will be purchased for this project. No new or additional ROW easements will be procured for this project. No grading, paving, or fencing will be necessary for this project. The rebuilding of the transmission lines will include Optical Ground Wire (OPGW), providing a fiber communication link to improve the reliability of the communications network. The OPGW will be placed in the secure topmost position of the transmission line. This means the activity of hanging the OPGW will be aerial in nature. The OPGW serves to shield conductor wires, all three phases, from lightning while providing a telecommunications path for internal as well as third party communications. The OPGW contains optical fibers which will be used for telecommunications purposes. All three transmission line rebuilds will include 161kV insulation. Construction at 161kV insulation provides system flexibility for future projects that could allow Cooperative Energy to assume transmission service for additional neighboring electric power company (Mississippi Power) area load. All three transmission line rebuilds will also utilize 795 Aluminum Conductor Steel Reinforced (ACSR) wire and modern steel and/or concrete poles and cross-arms. The purpose of the Project is to rebuild overhead electric transmission Lines 71, 72, 73. The existing Lines 71, 72, and 73 were originally constructed in the early 1970's. The overhead electric transmission line support structures used during the original construction were treated wood poles. These wood poles have reached the end of their useful life. Because of this, the need for the Project is to replace the wood transmission line support poles that have reached the end of their useful life with modern steel / concrete poles. The addition of the OPGW will modernize the ground wire with contemporary grounding and fiber optic communications technology. The reconstruction of the Project is needed to ensure future bulk electric power transmission reliability in the George County area. This future reliability is also needed to ensure our Distribution Member, Singing River Electric will be supplied with uninterrupted and reliable bulk electric power. Singing River Electric supplies distributed electric power to several critical entities such as hospitals, convalesce homes, federal installations, etc. that rely on electric power to sustain and improve human life.

If RUS elects to fund the Project, they will become undertakings subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800.

RUS defines the area of potential effect (APE), as an area that includes all Project construction and excavation activity required to construct, modify, improve, or maintain any facilities; any right-of-way or easement areas necessary for the construction, operation, and maintenance of the Project; all areas used for excavation of borrow material and habitat creation; all construction staging areas, access routes, utilities, spoil areas, and stockpiling areas. Impacts that come from the undertaking at the same time and place with no intervening causes, are considered "direct" regardless of its specific type (e.g., whether it is visual, physical, auditory,

Hank Sossaman

From: Kassie Dawsey <KDawsey@coushatta.org>
Sent: Thursday, September 16, 2021 11:35 AM
To: Hank Sossaman
Subject: USDA RD, Rebuild Transmission Lines 71, 72, & 73, George County, Mississippi

{*External Email - Use caution clicking links or opening attachments***}**

Thank you for requesting our 106/EA determination. Based on the information provided, I do not believe that this project will have a negative impact on any archaeological, historic, or cultural resources of the Coushatta people. Accordingly, we do not wish to consult further on this project. If any inadvertent discoveries are made in the course of this project, we expect to be contacted immediately and reserve the right to consult with you at that time.

Aliilamo

Kassie Dawsey
Section 106 Coordinator
Coushatta Tribe of Louisiana
Department of Cultural, Historical, and Natural Resources
P.O. Box 10
Elton, Louisiana 70532
Phone: 337-584-1585
Fax: 337-584-1616



Tribal Directory Assessment Information



Contact Information for Tribes with Interests in George County, Mississippi

Tribal Name

County Name

— Choctaw Nation of Oklahoma

George

Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Ian Thompson	THPO	PO Box 1210 Durant, OK 74702-1210	(800) 522- 6170, ext. 2216	(580) 920- 3102		ithompson@c hoctawnation. com	www.choctaw nation.com
Gary Batton	Chief	PO Drawer 1210 Durant, OK 74702	(580) 924- 8280	(580) 924- 1150		gbatton@cho ctawnation.co m	www.choctaw nation.com

— Coushatta Tribe of Louisiana

George

Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Linda Langley	THPO	PO Box 10 Elton, LA 70532	(337) 584- 1560	(337) 584- 1616		llangley@mcn eese.edu	http://koasatih eritage.org/
David Sickey	Chairman	PO Box 818 Elton, LA 70532	(337) 584- 1401	(337) 584- 1507		dsickey@cou shatta.org	http://koasatih eritage.org/

— Mississippi Band of Choctaw Indians

George

Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Cyrus Ben	Chief	PO Box 6010 Choctaw, MS 39350	(601) 656- 5251	(601) 650- 1606		info@choctaw .org	www.choctaw. org

1 - 3 of 3 results

« < 1 > » 10 ▾

Hank Sossaman

From: Hank Sossaman
Sent: Wednesday, August 18, 2021 1:23 PM
To: llangley@mcneese.edu
Subject: Project in George County Mississippi
Attachments: Tribal Initiation letter 2021.pdf; L071_Quad.pdf; L072_Env_Quad.pdf; L073_Env_Quad.pdf

Dear Ms. Langley,

Attached please a letter and maps concerning a proposed project by Cooperative Energy in George County, Mississippi. We are placing hardcopies of these documents and maps into the USPS for delivery to PO Box 10 in Elton.

Sincerely,



Hank Sossaman
Environmental Specialist
Cooperative Energy
Internal Ext. 2330
Office 228 Carley Building
Phone 601-261-2330





**Cooperative
ENERGY**

Hank Sossaman
Environmental Specialist
Cooperative Energy
PO Box 15849
Hattiesburg, MS, 39404

Private Mail Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

8/18/2021

Ms. Linda Langley
Tribal Historic Preservation Officer
PO Box 10
Elton, LA 70532 (and email llangley@mcneese.edu)

Subject: United States Department of Agriculture (USDA) – Rural Development (RD) RUS
Applicant THPO Section 106 Initiation
Rebuild Transmission Lines 71, 72, & 73
George County, Mississippi

Dear Ms. Langley:

Cooperative Energy plans to seek financial assistance from the USDA Rural Development (RD), Rural Utilities Service (RUS) under its Electric Program for the Rebuild 69kV Transmission Lines 71, 72, & 73 (Project). This Project will not be using the NPA.¹

The proposed action will occupy a total of approximately three hundred fifty nine (359) acres of land in George County, Mississippi. Approximately seven-tenths (0.68) acres of land will be converted directly. This direct conversion will be augured transmission support pole and guy-wire anchor placement. This project will be located within existing overhead electric transmission line right-of-way (ROW). There is no applicable address for the project area. This project will reconstruct three existing 69kV transmission lines by Cooperative Energy in George County. Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek) were identified in the Useful Life Study contained within the 2011 Long Range Transmission Study as near their end of useful life. The clearing of trees will not be necessary during construction. The ROW for these transmission lines was cleared and established decades ago. Some routine vegetation management may be necessary prior to beginning reconstruction of the project. The existing width of the ROW will remain at the current 100-foot width for each of the three transmission lines. The total linear length of the project will be

¹ *Nationwide Programmatic Agreement among the U.S. Department of Agriculture Rural Development Programs, National Conference of State Historic Preservation Officers, Tribal Signatories, and The Advisory Council on Historic Preservation for Sequencing Section 106 (NPA).*

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If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

approximately twenty nine and one-half (29.45) miles long. No land will be purchased for this project. No new or additional ROW easements will be procured for this project. No grading, paving, or fencing will be necessary for this project. The rebuilding of the transmission lines will include Optical Ground Wire (OPGW), providing a fiber communication link to improve the reliability of the communications network. The OPGW will be placed in the secure topmost position of the transmission line. This means the activity of hanging the OPGW will be aerial in nature. The OPGW serves to shield conductor wires, all three phases, from lightning while providing a telecommunications path for internal as well as third party communications. The OPGW contains optical fibers which will be used for telecommunications purposes. All three transmission line rebuilds will include 161kV insulation. Construction at 161kV insulation provides system flexibility for future projects that could allow Cooperative Energy to assume transmission service for additional neighboring electric power company (Mississippi Power) area load. All three transmission line rebuilds will also utilize 795 Aluminum Conductor Steel Reinforced (ACSR) wire and modern steel and/or concrete poles and cross-arms. The purpose of the Project is to rebuild overhead electric transmission Lines 71, 72, 73. The existing Lines 71, 72, and 73 were originally constructed in the early 1970's. The overhead electric transmission line support structures used during the original construction were treated wood poles. These wood poles have reached the end of their useful life. Because of this, the need for the Project is to replace the wood transmission line support poles that have reached the end of their useful life with modern steel / concrete poles. The addition of the OPGW will modernize the ground wire with contemporary grounding and fiber optic communications technology. The reconstruction of the Project is needed to ensure future bulk electric power transmission reliability in the George County area. This future reliability is also needed to ensure our Distribution Member, Singing River Electric will be supplied with uninterrupted and reliable bulk electric power. Singing River Electric supplies distributed electric power to several critical entities such as hospitals, convalesce homes, federal installations, etc. that rely on electric power to sustain and improve human life.

If RUS elects to fund the Project, it will become an undertaking subject to review under Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108, and its implementing regulations, 36 CFR Part 800.

RUS defines the area of potential effect (APE), as an area that includes all Project construction and excavation activity required to construct, modify, improve, or maintain any facilities; any right-of-way or easement areas necessary for the construction, operation, and maintenance of the Project; all areas used for excavation of borrow material and habitat creation; all construction staging areas, access routes, utilities, spoil areas, and stockpiling areas. Impacts that come from the undertaking at the same time and place with no intervening causes, are considered "direct" regardless of its specific type (e.g., whether it is visual, physical, auditory, etc.). "Indirect" effects to historic properties are those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable.

Based on this definition, Cooperative Energy proposes that the APE for the referenced project consists of 69kV Transmission Line 71, (Benndale – Basin), 69kV Transmission Line 72 (Basin – Agricola), 69kV Transmission Line 73 (Agricola – Rocky Creek), Transmission line support structures / poles (count TBD), 161kV 795 Aluminum Conductor Steel Reinforced (ACSR) wire, 161kV Insulation, Optical Ground Wire (OPGW) containing fiber optic communication link equipment located and as shown on the enclosed map. The geographic scope of the APE will not be final until a determination is made by RUS pursuant to 36 CFR § 800.4(a)(1). The APE does not include any tribal lands as defined pursuant to 36 CFR § 800.16(x).

Pursuant to 36 CFR § 800.2(c)(4), and 7 CFR § 1970.5(b)(2) of the regulations, "Environmental Policies and Procedures" (7 CFR Part 1970), RUS has issued a blanket delegation for its applicants to initiate and proceed through Section 106 review if there is agreement.

In delegating this authority, RUS is advocating for the direct interaction between its RUS Electric program applicants and Indian tribes. RUS believes this interaction, prior to direct agency involvement, will support and encourage the consideration of impacts to historic properties of importance to Indian tribes earlier in project planning.

Cooperative Energy is notifying you about the referenced project because of the possible interest of the Coushatta Tribe of Louisiana in Jefferson Davis Parish. Should the Coushatta Tribe of Louisiana elect to participate in Section 106 review of the referenced project, please notify me in writing via letter or email as soon as possible at the following addresses – Hank Sossaman, Cooperative Energy, PO Box 15849, Hattiesburg, MS 39404-5849 or email at hsossaman@cooperativeenergy.com.

Please include with your affirmative response, a description of any specific historic properties or important tribal resources in the APE and your recommendations about the level of effort needed to identify additional historic properties which might be affected by the referenced project. Cooperative Energy will respect the confidentiality of the information which you provide to the fullest extent possible.

If at any time you wish to share your interests, recommendations and concerns directly with RUS, as the agency responsible for conducting Section 106 review, or to request that RUS participate directly in Section 106 review, please notify me at once, preferably via email. However, you may contact RUS directly. If you wish to do so, please submit your request to Ms. Katherine Mathis at katherine.mathis@usda.gov.

Please submit your response **electronically** by 9/31/2021. RUS will proceed to the next step in Section 106 review if you fail to provide a timely response. Should you have any questions or require additional information you may contact me at the mailing address and email provided above.



Post Office Box 9849
Hattiesburg, MS 38404-9849
(601) 268-2083

CooperativeEnergy.com

April 27, 2020

Dr. Ian Thompson
Director Historic Preservation Department
Choctaw Nation of Oklahoma
P.O. Drawer 1210
Durant, OK 74702-1210

Dear Dr. Thompson:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

This correspondence from our electric cooperative is simply a courtesy notification of the proposed action and is not intended to be consultation.

Cooperative Energy will be required to submit an environmental assessment of this project to the RUS.

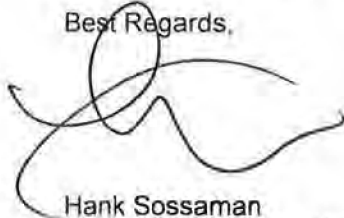
RUS, an Agency which administers the U. S. Department of Agriculture's Rural Development, Utilities Programs is authorized to provide financial assistance for infrastructure development in rural areas under its Electric Program in accordance with 7 CFR Part 1970.

The RUS is considering funding this application, thereby making the proposal an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800).

Enclosed please find county and quadrangle maps of the proposed site.

Cooperative Energy appreciates your attention to this matter.

Best Regards,

A handwritten signature in black ink, appearing to read 'Hank Sossaman', with a large, stylized loop at the beginning and a long, sweeping underline.

Hank Sossaman
Environmental Specialist

Enclosures



One Office Building
Hattiesburg, MS 39404-5549
(601) 704-2055

CooperativeEnergy.com

April 27, 2020

Phyllis Anderson
Mississippi Band of Choctaw Indians
101 Industrial Road
Choctaw, MS 39350

Dear Ms. Anderson:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

This correspondence from our electric cooperative is simply a courtesy notification of the proposed action and is not intended to be consultation.

Cooperative Energy will be required to submit an environmental assessment of this project to the RUS.

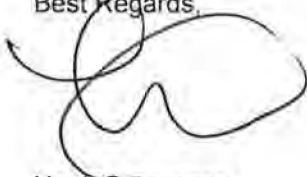
RUS, an Agency which administers the U. S. Department of Agriculture's Rural Development, Utilities Programs is authorized to provide financial assistance for infrastructure development in rural areas under its Electric Program in accordance with 7 CFR Part 1970.

The RUS is considering funding this application, thereby making the proposal an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800).

Enclosed please find county and quadrangle maps of the proposed site.

Cooperative Energy appreciates your attention to this matter.

Best Regards,

A handwritten signature in black ink, appearing to be 'Hank Sossaman', written over a circular stamp or seal.

Hank Sossaman
Environmental Specialist

Enclosures

Appendix H

Biological Resources

Threatened and Endangered Species Report Sensitive Data Statement

Due to the potential for the “Threatened and Endangered Species Report / Project – Rebuild Transmission Lines – 71, 72, & 73” to contain sensitive species location information, a copy of this report has been provided to RUS for their file.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900 Fax: (601)965-4340



August 31, 2020

IN REPLY REFER TO:
2020-I-751E

Hank Sossaman
Cooperative Energy
Post Office Box 15849
Hattiesburg, Mississippi 3940

Dear Mr. Sossaman:

The Fish and Wildlife Service (Service) has reviewed your June 11, 2020 survey report for the proposed Cooperative Energy Transmission Lines 71, 72, and 73 Rebuild Project in George County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The results of the field survey revealed the presence of the federally threatened gopher tortoise (*Gopherus polyphemus*) in the project action area. Several gopher tortoise burrows were observed and recorded within or adjacent to the proposed project right-of-way (ROW). Suitable habitat for the black pinesnake (*Pituophis melanoleucus*) was also observed in or adjacent to the project area. No other species were observed.

Provided Cooperative Energy adopt standard gopher tortoise conservation measures that avoid impacts to the gopher tortoise and its burrow, the Service has determined the proposed project may affect, but is not likely to adversely affect the gopher tortoise. Conservation measures should include flagging all burrows, installing silt screen fencing a minimum of 25 feet from all burrows and keeping heavy equipment out of this buffer (hand clearing of trees and shrubs is acceptable), educating workers on tortoise burrow protection, and other similar measures. Furthermore, since black pinesnake habitat can be found in or adjacent to the project area, we recommend no harm to snakes that may be encountered during project activities. Provided conservation measures are implemented and snakes are not harmed during project activities, the Service has determined the proposed project may affect, but is not likely to adversely affect the black pinesnake.

Based on the absence of Louisiana quillwort in streams identified as potential habitat during field surveys, the Service has determined that the proposed project may affect, but is unlikely to adversely affect the Louisiana quillwort.

No further coordination is required with this office unless there are changes in the scope or location of the proposed project. Also, you are advised that if this project is federally funded or requires a federal permit, the lead federal agency, in accordance with that agency's procedures, may require further coordination with this office in order to ensure compliance with the ESA.

If you have any questions, please contact Tamara Campbell of our office, telephone: (601) 321-1138.

Sincerely,

Stephen Ricks

Stephen M. Ricks

Field Supervisor

Mississippi Field Office

Hank Sossaman

From: Hank Sossaman
Sent: Thursday, August 20, 2020 10:22 AM
To: Campbell, Tamara (tamara_campbell@fws.gov)
Subject: Cooperative Energy - George County
Attachments: Consult-TE Survey-71 George County.pdf

Hi Tamara,

Attached please find a T&E survey report for a project yall preliminarily desktop reviewed back in April. We look forward to hearing back from you on this proposed action.

Thanks and best regards,



Hank Sossaman
Environmental Specialist
Cooperative Energy
Internal Ext. 2330
Office 228 Carley Building
Phone 601-261-2330





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mississippi Ecological Services Field Office

6578 Dogwood View Parkway, Suite A

Jackson, Mississippi 39213

Phone: (601)965-4900 Fax: (601)965-4340



April 30, 2020

IN REPLY REFER TO:
2020-I-751

Hank Sossaman
Cooperative Energy
Post Office Box 15849
Hattiesburg, Mississippi 39404

Dear Mr. Sossaman:

The Fish and Wildlife Service (Service) has reviewed the information in the letter dated April 27, 2020, regarding the proposed Rebuild Lines 71, 72, & 73 Project in George County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Several federally listed species can be found in or near the project area: Gulf sturgeon, wood stork, pearl darter, yellow blotched map turtle, Louisiana quillwort, dusky gopher frog, gopher tortoise, and black pinesnake. However, based on the fact that the project does not include activities that would result in direct or indirect impacts to major rivers, it's unlikely that the Gulf sturgeon, pearl darter, or the yellow blotched map turtle would be adversely impacted by the proposed project. Furthermore, based on the fact that adult wood storks would be expected to avoid the project area, it's unlikely that this species would be adversely impacted by the project. Also, given no critical habitat for the dusky gopher frog will be impacted, it's unlikely that this species would be adversely impacted by the project.

The endangered Louisiana quillwort can be found in or near the project area. It is a small, nonflowering grass-like semi-aquatic to aquatic plant. Mature plants are six to ten inches long, mostly evergreen, with spore-bearing structures below ground. Surveys need to be conducted during the appropriate field season when the plants are visible, typically November into May. Timing varies depending upon rainfall, as plants completely die back and are not visible when the intermittent streams, which are habitat for this species, have dried-up. As such, it is recommended that known sites be visited prior to initiating surveys to determine if plants will likely be visible.

Additionally, records reveal that the threatened gopher tortoise and black pinesnake can be found in or near the proposed project area. These species occupy a wide range of upland habitat types. The general physical and biotic features thought to characterize suitable adult tortoise habitat are a presence of well-drained, sandy soils, which allow easy burrowing; an abundance of

herbaceous ground cover; and generally open canopy and sparse shrub cover. The black pinesnake and gopher tortoise share similar habitat, but adult black pinesnakes typically use rotted tree stumps and root systems for retreat and hibernation.

We recommend a survey for Louisiana quillwort, black pinesnake, and the gopher tortoise be conducted in advance of construction of the project. If any of these species or its burrow are discovered, further coordination with this office will be necessary.

If you have any questions, please contact Tamara Campbell of our office, telephone: (601) 321-1138.

Sincerely,

Stephen Ricks

Stephen M. Ricks
Field Supervisor
Mississippi Field Office



Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083
CooperativeEnergy.com

April 27, 2020

U. S. Fish & Wildlife Service
Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213

Dear Madam or Sir:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

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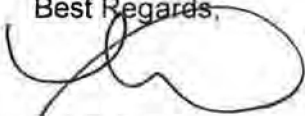
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The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage uprates become necessary.

Please advise if there are any environmental constraints affecting endangered species.

We are contacting the Mobile District Corps of Engineers for assistance in determining impacts on wetlands.

Best Regards,

A handwritten signature in black ink, appearing to read 'Hank Sossaman', with a large, stylized loop at the end.

Hank Sossaman
Environmental Specialist
Enclosures

Threatened & Endangered Species Evaluation Table
Cooperative Energy
Rebuild Lines 71, 72, & 73
August 23, 2021

Common Name	Scientific Name	Federal Status	Critical Habitat Present	Critical Habitat	Description of Suitable Habitat (cite source(s)*)	Proposed Finding of Effect	Explain Reasoning for Proposed Determination (cite source **)
Wood Stork	<i>Mycteria americana</i>	Threatened	No	No	Wooded and wetland areas *	Not adversely impacted	Species expected to avoid the area**
Black Pine Snake	<i>Pituophis melanoleucus lodingi</i>	Threatened	Yes	Final	Well drained, sandy soil, herbaceous ground cover, sparse shrub cover, and open canopy	May affect, but is not likely to adversely affect the species.	No harm will be permitted to any snakes during activities. ***
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	Threatened	No	No	pine and scrubby flatwoods, pine rocklands, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats****	May affect, but is not likely to adversely affect the species.	No harm will be permitted to any snakes during activities. ***
Gopher Tortoise	<i>Gopherus polyphemus</i>	Threatened	Yes	Final	Well drained, sandy soil, herbaceous ground cover, sparse shrub cover, and open canopy	May affect, but is not likely to adversely affect the species.	No harm will be permitted to any snakes during activities. ***
Yellow-blotched Map Turtle	<i>Graptemys flavimaculata</i>	Threatened	No	No	rivers and streams	May affect, but is not likely to adversely affect the species.	No project activities will occur in rivers**
Dusky Gopher Frog	<i>Rana sevosa</i>	Endangered	No	No	upland forested areas, historically dominated by longleaf pine, and temporary wetlands imbedded within the forested landscape*****	Will not be adversely impacted by project.	No critical habitat will be impacted**
Gulf Sturgeon	<i>Acipenser oxyrinchus (=oxyrinchus) desotoi</i>	Threatened	No	No	rivers and streams	May affect, but is not likely to adversely affect the species.	No project activities will occur in rivers**
Pearl Darter	<i>Percina aurura</i>	Threatened	No	No	rivers and streams	May affect, but is not likely to adversely affect the species.	No project activities will occur in rivers**
Louisiana Quillwort	<i>Isoetes louisianaensis</i>	Endangered	No	No	intermittent streams and waters	May affect, but is not likely to adversely affect the species.	No species identified during field survey***

* USFWS Letter dated 04/30/2020

** USFWS Letter dated 04/30/2020

*** USFWS Letter dated 08/31/2020

****Eastern Indigo Snake: Species Profile - Everglades National Park (U.S. National Park Service) (nps.gov)

*****2018_GopherFrogFactsheet.pdf (fws.gov)



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900 Fax: (601) 965-4340
<http://www.fws.gov/mississippiES/endsp.html>

In Reply Refer To:

August 23, 2021

Consultation Code: 04EM1000-2021-SLI-1220

Event Code: 04EM1000-2021-E-02761

Project Name: Rebuild Lines 71, 72, & 73 in George County, Mississippi

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 ECOS-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 ECOS-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:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. Submit consultation requests electronically to the following email: msfosection7consultation@fws.gov

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - 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:

Mississippi Ecological Services Field Office

6578 Dogwood View Parkway, Suite A

Jackson, MS 39213-7856

(601) 965-4900

Project Summary

Consultation Code: 04EM1000-2021-SLI-1220

Event Code: 04EM1000-2021-E-02761

Project Name: Rebuild Lines 71, 72, & 73 in George County, Mississippi

Project Type: TRANSMISSION LINE

Project Description: The proposed action will occupy a total of approximately three hundred fifty nine (359) acres of land in George County, Mississippi. Approximately seven-tenths (0.68) acres of land will be converted directly. This direct conversion will be augured transmission support pole and guy-wire anchor placement. This project will be located within existing overhead electric transmission line right-of-way (ROW). There is no applicable address for the project area.

This project will reconstruct three existing 69kV transmission lines by Cooperative Energy in George County. Transmission Lines 71 (Benndale – Basin), 72 (Basin – Agricola), and 73 (Agricola – Rocky Creek) were identified in the Useful Life Study contained within the 2011 Long Range Transmission Study as near their end of useful life. The clearing of trees will not be necessary during construction. The ROW for these transmission lines was cleared and established decades ago. Some routine vegetation management may be necessary prior to beginning reconstruction of the project. The existing width of the ROW will remain at the current 100-foot width for each of the three transmission lines. The total linear length of the project will be approximately twenty nine and one-half (29.45) miles long. No land will be purchased for this project. No new or additional ROW easements will be procured for this project. No grading, paving, or fencing will be necessary for this project.

The rebuilding of the transmission lines will include Optical Ground Wire (OPGW), providing a fiber communication link to improve the reliability of the communications network. All three transmission line rebuilds will include 161kV insulation. Construction at 161kV insulation provides system flexibility for future projects that could allow Cooperative Energy to assume transmission service for additional neighboring electric power company (Mississippi Power) area load. All three transmission line rebuilds will also utilize 795 Aluminum Conductor Steel Reinforced (ACSR) wire and modern steel and/or concrete poles and cross-arms. The overall Need for the Project is to replace wood transmission line support poles that have reached the end of their useful life with modern steel / concrete poles. This is needed to ensure future bulk electric power transmission reliability in the George County area. This future reliability is also needed to ensure our Distribution Member, Singing River Electric will be supplied with uninterrupted and reliable bulk electric power. Singing River Electric supplies electric power to several critical entities such as hospitals, convalesce homes, federal installations, etc. that rely on electric power to sustain and improve human life. The preferred

construction commencement date is August 25, 2021 or as soon as feasible.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@30.86154865,-88.79225172190974,14z>



Counties: George County, Mississippi

Endangered Species Act Species

There is a total of 9 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 Fisheries¹, 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.

Birds

NAME	STATUS
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
Black Pine Snake <i>Pituophis melanoleucus lodingi</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/452	Threatened
Eastern Indigo Snake <i>Drymarchon corais couperi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Gopher Tortoise <i>Gopherus polyphemus</i> Population: West of Mobile and Tombigbee Rivers No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994	Threatened
Yellow-blotched Map Turtle <i>Graptemys flavimaculata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7730	Threatened

Amphibians

NAME	STATUS
Dusky Gopher Frog <i>Rana sevosa</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5600	Endangered

Fishes

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/651	Threatened
Pearl Darter <i>Percina aurora</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3970	Threatened

Ferns and Allies

NAME	STATUS
Louisiana Quillwort <i>Isoetes louisianensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7756	Endangered

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> https://ecos.fws.gov/ecp/species/651#crithab	Final

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.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
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)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31

NAME	BREEDING SEASON
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

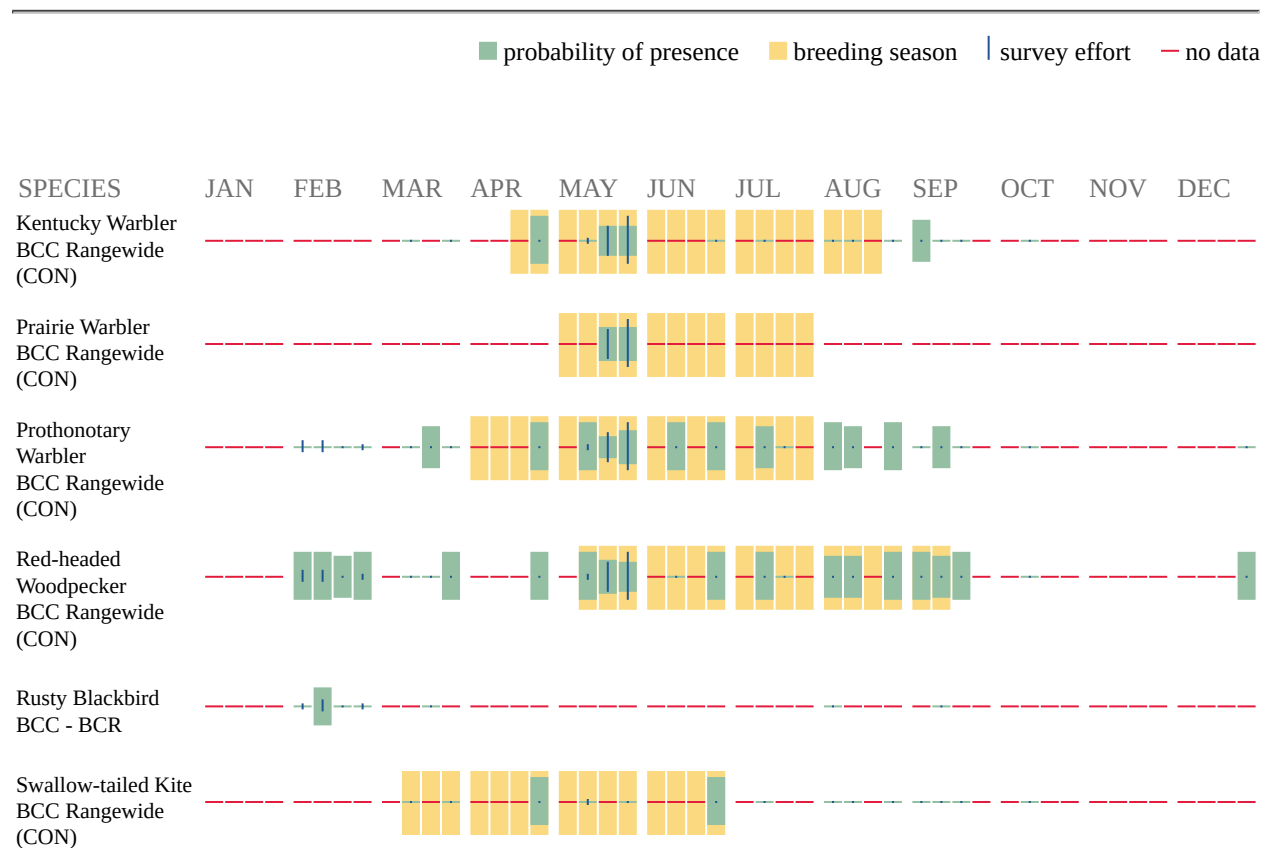
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Wood Thrush
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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](#)
- [PEM1Ad](#)
- [PEM1C](#)
- [PEM1B](#)

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1/4A](#)
- [PFO1/4C](#)
- [PFO1/SS3B](#)
- [PFO1A](#)
- [PFO1C](#)
- [PFO4/EM1B](#)
- [PFO6F](#)
- [PSS1C](#)
- [PSS7/EM1A](#)
- [PSS7/EM1B](#)
- [PFO6Fh](#)
- [PSS7/EM1Bd](#)

FRESHWATER POND

- [PUBHh](#)

RIVERINE

- [R4SBC](#)
 - [R5UBH](#)
 - [R2UBH](#)
-

SPECIES DATA AND CRITERIA

<u>Common Name</u>	<u>Date</u>	<u>Seasonal/Daily</u>	<u>Season</u>	<u>Observed</u>	<u>Density (#km/2)</u>	<u>Units</u>	<u>Proposed</u>	<u>Confirmed</u>
<u>Swainson's Warbler</u>	2001	S	breeding	9		Adults only	-	D1
<u>Swallow-tailed Kite</u>	2001	S	breeding	2		Breeding pairs	-	D1
<u>Wood Stork</u>	2000	S	non-breeding	10		Individuals	-	D1

OWNERSHIP

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Ownership</u>
1/1/2008	100	Non-profit/Land Trust - The Nature Conservancy
1/1/2008		Owned and managed by The Nature Conservancy.

HABITAT

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Habitat</u>
1/1/2008	5	Water/Open Water/Natural Lake (oxbow/meander scar)
	95	Forested Upland/Deciduous forest/Bottomland Hardwood Forest
1/1/2008		Much of the bottomland hardwood forest is mature with scattered openings resulting from forestry and past wildlife game management practices. More than ninety percent of the site is classified as a wetland and several oxbow lakes exist.

LAND USE

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Land Use</u>
1/1/2008	100	nature conservation and research/Conservation/ Natural Area
1/1/2008		

THREATS

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Threat</u>
1/1/2008	-	Pollution
	-	Invasive species/Non-native animals (other than birds)
	-	Invasive species/Non-native plants

CONSERVATION ISSUES

1/1/2008	This IBA is dedicated as a wetland mitigation site for state transportation projects that displace bottomland hardwood forests. Most of the preserve is part of The Nature Conservancy's Old Fort Bayou Wetland Mitigation Bank to the south, which is another Important Bird Area. The few small areas that have been converted to pine plantations are being harvested and restored to upland hardwood habitats. Control of exotic plants, especially Cogon Grass, was initiated in 2002. Archaeological surveys were begun in 2002.
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PASCAGOULA RIVER AND WARD BAYOU WILDLIFE MANAGEMENT AREAS

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Name	Pascagoula River and Ward Bayou Wildlife Management Areas		
Status	Recognized	State	Mississippi
Priority	State	Counties	George, Jackson
Proposed Criteria	-		
Confirmed Criteria	D4i, D4vii, D1		

Central Coordinates	Area (acres)	Elevation (meters)
30.61667, -88.61667	50,360	Min: Max: Avg:

Bird Conservation Region

Gulf Coast Prairie

SITE DESCRIPTION

This site is within the Pascagoula River watershed, the only large, unimpeded river system in the lower 48 United States. This state owned property stretches along 50 miles of the Pascagoula River. Because of the unaltered state of the Pascagoula River, the majority of the site is subject to natural seasonal flooding. The Mississippi Department of Wildlife, Fisheries and Parks owns and manages these contiguous wildlife management areas primarily for hunting and fishing. This site also provides opportunities for paddling, birdwatching and general nature observation. The Pascagoula River Wildlife Management Area was one of the most significant conservation land purchases by a state when it was acquired in the 1970s; Ward Bayou Wildlife Management Area was acquired as mitigation for the loss of forested wetlands during the construction of the Tennessee-Tombigbee Waterway.

ORNITHOLOGICAL SIGNIFICANCE

This IBA has been identified as an important site for the conservation of Swallow-tailed Kites. It provides an important north-south corridor for songbirds migrating across the Gulf of Mexico and is comprised mainly of bottomland hardwood forests with many scattered oxbow lakes.



PASCAGOULA RIVER AND WARD BAYOU WILDLIFE MANAGEMENT AREAS

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SPECIES DATA AND CRITERIA

<u>Common Name</u>	<u>Date</u>	<u>Seasonal/Daily</u>	<u>Season</u>	<u>Observed</u>	<u>Density (#km/2)</u>	<u>Units</u>	<u>Proposed</u>	<u>Confirmed</u>
<u>Rusty Blackbird</u>	2000	S	non-br (during br season)	80		Unknown	-	D1
<u>Swallow-tailed Kite</u>	2000	S	breeding	40		Breeding pairs	-	D1
	1998	S	non-breeding	125		Individuals	-	D1
Source : Post-breeding dispersal/congregation.								
<u>Wood Stork</u>	2000	S	passage	10		Unknown	-	D1

OWNERSHIP

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Ownership</u>
1/1/2008	-	State
	-	State/Wildlife Management Area
1/1/2008		



PASCAGOULA RIVER AND WARD BAYOU WILDLIFE MANAGEMENT AREAS

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HABITAT

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Habitat</u>
1/1/2008	-	Forested Upland/Deciduous forest/Bottomland Hardwood Forest
1/1/2008		

LAND USE

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Land Use</u>
1/1/2008	-	nature conservation and research/Conservation/ Natural Area
1/1/2008		

THREATS

<u>Assessment Date</u>	<u>% of IBA</u>	<u>Threat</u>
1/1/2008	-	Unknown
	-	Pollution
	-	Invasive species
	-	Recreation/tourism/Other

CONSERVATION ISSUES

1/1/2008	Due to the continual loss of mature bottomland hardwood forests in the region, these public areas are becoming increasingly important for sustaining healthy Swallow-tailed Kite populations. Exotic invasive plants such as Cogon Grass, Japanese Climbing Fern and Japanese Privet could change and disrupt the natural plant communities and impair habitats for nesting and migrating birds. The formation of the Pascagoula River Basin Alliance in 2001 is generating additional interest in the long-term conservation of this IBA and adjoining areas along the river. Various research projects have been conducted to acquire baseline information about bird populations, but continual bird monitoring is critical for assessing the success of management activities. Preliminary radar observations indicate the area supports significant concentrations of Neotropical migrants during spring and fall.
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U.S. Fish & Wildlife Service

Bald Eagle

Haliaeetus leucocephalus



Jim Hudgins/USFWS

A North American species with a historic range from Alaska and Canada to northern Mexico, the bald eagle is an Endangered Species Act success story.

Forty years ago, our national symbol was in danger of extinction throughout most of its range. Habitat destruction and degradation, illegal shooting, and the contamination of its food source, largely as a consequence of DDT, decimated the eagle population.

The federal government's banning of DDT and related pesticides, habitat protection afforded by the Endangered Species Act, and conservation actions taken by the American public have helped bald eagles make a remarkable recovery.

Bald Eagle Biology

Distinguished in the adult plumage by a white head and white tail, bald eagles are powerful, brown birds that may weigh 14 pounds and have a wingspan of 8 feet. Male eagles are smaller, weighing as much as 10 pounds and have a wingspan of 6 feet. Sometimes confused with golden eagles, bald eagles are mostly dark brown until they are four to five years old and acquire their characteristic coloring. There is a distinction between the two species, though, even during the early years. Only the tops of the bald eagle's legs have feathers. The legs of golden eagles are feathered all the way down.

Bald eagles live near rivers, lakes, and marshes where they can find fish, their staple food. As their populations grow, however, bald eagles are expanding their range, even nesting in urban areas. Bald eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion.

Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.

Bald eagles usually choose the tops of large trees to build nests, which they typically use and enlarge each year. However, nests have also been found on cliffs, the ground, and even on human-made structures like cell phone towers.

Nests may reach 10 feet across and weigh a half ton. Bald eagles may also have one or more alternate nests within their breeding territory. The birds travel great distances but usually return to breeding grounds within 100 miles of the place where they were raised. Bald eagles may live 15 to 25 years in the wild, longer in captivity.

Breeding bald eagles typically lay one to three eggs once a year, and they hatch after about 35 days. The young eagles are flying within three months and are on their own about a month later. However, disease, lack of food, bad weather, or human interference can kill many eaglets. Recent studies show that approximately 70 percent survive their first year of life.

The Plight of the Bald Eagle

When America adopted the bald eagle as the national symbol in 1782, anecdotal accounts stated the country may have had as many as 100,000 nesting eagles. The first major decline of the species probably began in the mid to late 1800's, coinciding with the decline of waterfowl, shorebirds, and other prey.

Although they primarily eat fish and carrion, bald eagles used to be considered marauders that preyed on chickens, lambs, and domestic livestock. Consequently, the large raptors were shot in an effort to eliminate a perceived threat. Coupled with the loss of nesting habitat, bald eagle populations declined.

In 1940, noting that the species was "threatened with extinction," Congress passed the Bald Eagle Protection Act, which prohibited killing, selling, or possessing the species. A 1962 amendment added the golden eagle, and the law became the Bald and Golden Eagle Protection Act.

Shortly after World War II, DDT was hailed as a new pesticide to control mosquitoes and other insects. However, DDT and its residues washed into nearby waterways, where aquatic plants and fish absorbed it. Bald eagles, in turn, were poisoned with DDT when they ate the contaminated fish. The chemical interfered with the ability of the birds to produce strong eggshells.

As a result, their eggs had shells so thin that they often broke during incubation or otherwise failed to hatch. DDT also affected other species such as peregrine falcons and brown pelicans. Some other pesticides related to DDT are suspected to have caused increased mortality, in addition to the harmful effects on reproduction.

By 1963, with only 417 nesting pairs of bald eagles known to exist, the species was in danger of extinction.

The Road Back

As the dangers of DDT became known, in large part due to the 1962 publication of Rachel Carson's book *Silent Spring*, the Environmental Protection Agency took the historic and, at the time, controversial step of banning the use of DDT and some related pesticides in the United States. That was in 1972, and it was the first step on the road to recovery for the bald eagle.

In 1967, the Secretary of Interior listed bald eagles south of the 40th parallel under the Endangered Species Preservation Act of 1966. Following enactment of the Endangered Species Act of 1973, the Service listed the species in 1978 as endangered throughout the lower 48 states, except in Michigan, Minnesota, Oregon, Washington, and Wisconsin where it was designated as threatened.

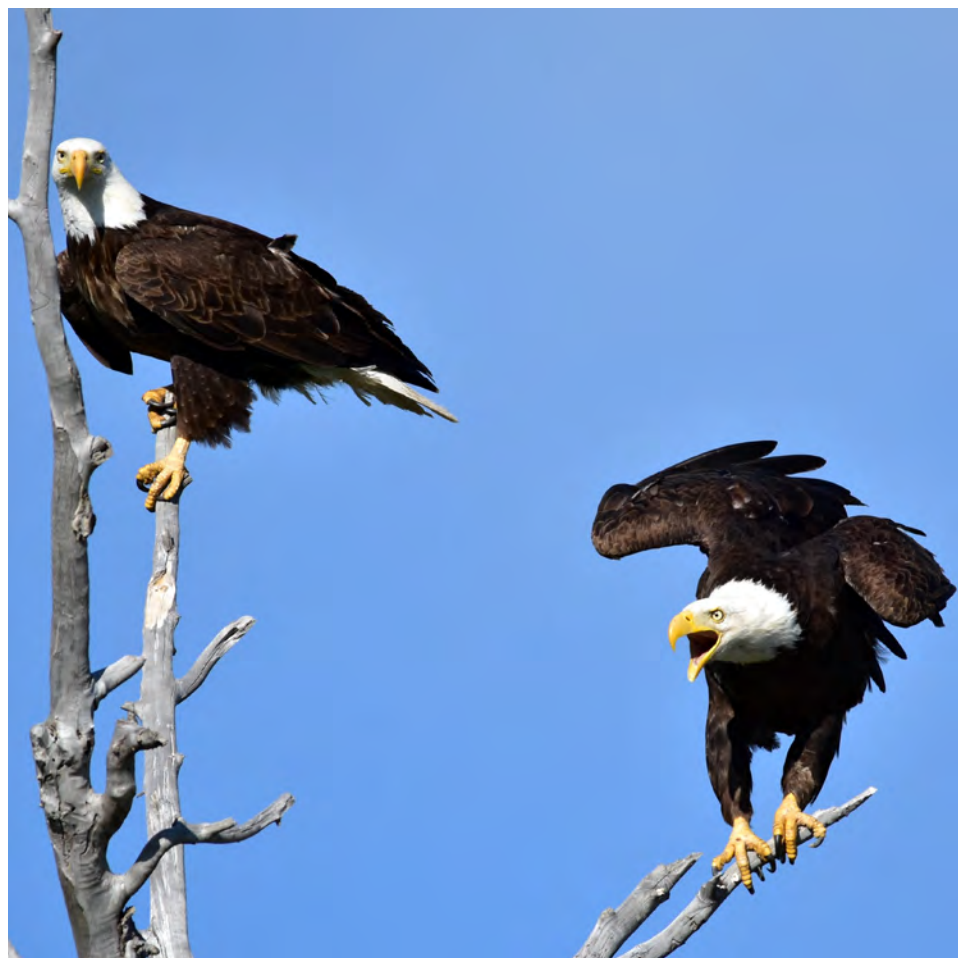
The species was not listed as threatened or endangered in Hawaii because it does not occur there, or in Alaska because populations there have remained robust.

Listing the species as endangered provided the springboard for the Service and its partners to accelerate the pace of recovery through captive breeding programs, reintroduction efforts, law enforcement, and nest site protection during the breeding season.

Population Milestones

In July 1995, the Service announced that bald eagles in the lower 48 states had recovered to the point where those populations previously considered endangered could be reclassified to the less critical category of threatened.

Then in 2007, the Service estimated there were at least 9,789 nesting pairs of bald eagles in the contiguous United States. Bald eagles staged a remarkable population rebound and recovered to the point that they no longer needed the protection of the



Tom Koerner/USFWS

Endangered Species Act. Thus, on June 28, 2007, the Service announced the recovery of our nation's symbol and removal from the list of threatened and endangered species.

Continued Population Growth

In 2016, the Service published the bald eagle population status report as part of a Programmatic Environmental Impact Statement. In that report which analyzed data from 2009, the bald eagle population in the lower 48 states was estimated to be 72,434 individuals, including 30,548 breeding pairs.

Then in 2021, the Service published a technical update that provided the newest estimates for the bald eagle population in the lower 48 states for the period 2018-2019, totaling 316,700 individuals, which included 71,467 breeding pairs.

What Lies Ahead

The recovery of the bald eagle is one of the most well-known conservation success stories of all time. The Service continues to work with our partners in state and federal agencies, tribes, non-government organizations and private landowners to ensure that our nation's symbol flourishes.

Although the Service removed the bald eagle from the list of threatened and endangered species under the Endangered Species Act, the bird continues to be protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Both laws prohibit killing, selling or otherwise harming eagles, their nests, or eggs.

The Service developed guidelines to help landowners avoid disturbing eagles and encourage beneficial conservation practices.

For more information on the recovery of bald eagles, please visit <https://www.fws.gov/birds/management/managed-species/eagle-management.php>

**U.S. Fish & Wildlife Service
Migratory Bird Program
5275 Leesburg Pike, MS: MB
Falls Church, VA 22041**

**703/358-1714
www.fws.gov/birds/**

February 2021



U.S. Fish & Wildlife Service

Golden Eagles

Status Fact Sheet



Golden Eagle
Photo: George Gentry/USFWS

Golden Eagles (*Aquila chrysaetos canadensis*) can be found from the tundra, through grasslands, forested habitat and woodland brushlands, south to arid deserts, including Death Valley, California. They are aerial predators and eat small to mid sized reptiles, birds, and mammals up to the size of mule deer fawns and coyote pups. They also are known to scavenge and utilize carrion.

Golden Eagles build nests on cliffs or in the largest trees of forested stands that often afford an unobstructed view of the surrounding habitat. Their nests are usually, sticks and soft material added to existing nests, or new nests that are constructed to create strong, flat or bowl shaped platforms.

Golden Eagles avoid nesting near urban habitat and do not generally nest in densely forested habitat. Individuals will occasionally nest near semi urban areas where housing density is low and in farmland habitat; however Golden Eagles

have been noted to be sensitive to some forms of human presence. Golden Eagles lay one to four eggs, with two eggs being most common and four eggs most rare. The laying interval between eggs ranges between three to five days.

Golden Eagle Migration

Golden Eagles will migrate from the Canadian provinces and northern tier and northeastern states to areas that are milder in the winter and/or may have less snow cover. During winter, Golden Eagles are found throughout the continental United States. Golden Eagles tend to migrate during midday along north-south oriented cliff lines, ridges, and escarpments, where they are buoyed by uplift from deflected winds. Golden Eagles will forage during migration flights and use lift from heated air from open landscapes to move efficiently during migration and seasonal movements, gliding from one thermal to the next and sometimes moving in groups with other raptor species.

Status of Golden Eagles

The most recent survey of Golden Eagles across four large Bird Conservation Regions (BCRs) in the West (80 percent of the species' range in the lower 48 states is in these BCRs) provided an estimate of 20,722 Golden Eagles of all ages across the survey area. The best available survey data the U.S. Fish and Wildlife has for Golden Eagles indicate, at best, a stable population in the four Bird Conservation Regions, with a possible decline in the population of juvenile Golden Eagles in the southern Rockies. The Service extrapolates those survey data to estimate that there may be 30,000 Golden Eagles across the United States. However, Golden Eagle populations are believed to undergo a (roughly) ten year cycle, so having only four years data (surveys 2006 – 2009) limits the Service's ability to assess the long-term population trend. Size and

shape, and distribution of golden eagle nesting territories vary with topography and prey availability. Disturbances near areas that are important for roosting or foraging can stress eagles to a degree that leads to reproductive failure or mortality elsewhere

Protection of Golden Eagles

Bald and Golden eagles are protected by three federal laws: The Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and the Lacey Act. These laws prohibit the possession, use and sale of eagle feathers and parts as well as a number of other activities, including the transportation of eagles and feathers and parts that have been illegally obtained. The Eagle Act has prohibited take of Bald Eagles since 1940 and Golden Eagles since 1962. Take means pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb. Such restrictions help ensure the future viability of eagles in the wild. The U.S. Fish and Wildlife Service has long recognized the religious and cultural significance of eagles to Native Americans and works to accommodate these special needs. The Service operates the National Eagle Repository as a clearinghouse for eagles and eagle parts to provide Native Americans with eagle feathers for religious and cultural use.

U.S. Fish & Wildlife Service
<http://www.fws.gov>
1800/344 WILD

February 2011

Appendix I

Water Resources



STATE OF MISSISSIPPI
TATE REEVES

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, INTERIM EXECUTIVE DIRECTOR

May 6, 2020

Hank Sossaman
Cooperative Energy
PO Box 15849
Hattiesburg, MS 39404

Dear Mr. Sossaman:

Re: Rebuild Line 71, 72, & 73
Electrical System Improvements
Environmental Assessment
George County

We have reviewed the information submitted on the referenced proposed project. From the information provided, we find no expected adverse environmental impact from the construction of the proposed project.

Please be aware if the project is disturbing more than 1 acre, it will require coverage under a construction general permit for control of stormwater/sediment runoff. For coverage required prior to commencement of construction, please contact the appropriate MDEQ Permitting branch. For wetlands permitting concerns, please contact the US Army Corp of Engineers and the MDEQ Water Quality Certification Branch.

From the information provided, we find no expected adverse environmental impact from the construction of the proposed project. This letter should not be interpreted as equivalent to any approval or permit that may be required for this project. Please be reminded that it is the full responsibility of the owner to ensure all other approvals, permits, clearances, easements, agreements, etc., which may be required prior to or during construction of the project have been or will be obtained.

If you have any questions, please contact me at (601) 961-5067.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dmitry Asanov".

Dmitriy A. Asanov, E.I.T.
Municipal and Private Facilities Branch
Environmental Permits Division



Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

April 27, 2020

Mississippi Department
of Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385

To Whom It May Concern:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage updates become necessary.

Cooperative Energy will be required to submit an environmental assessment of the project to the USDA's Rural Utilities Services (RUS).

The project referred to is shown on the enclosed maps. Please advise if there are any environmental constraints associated with this project area that should be avoided or dealt with under your jurisdiction.

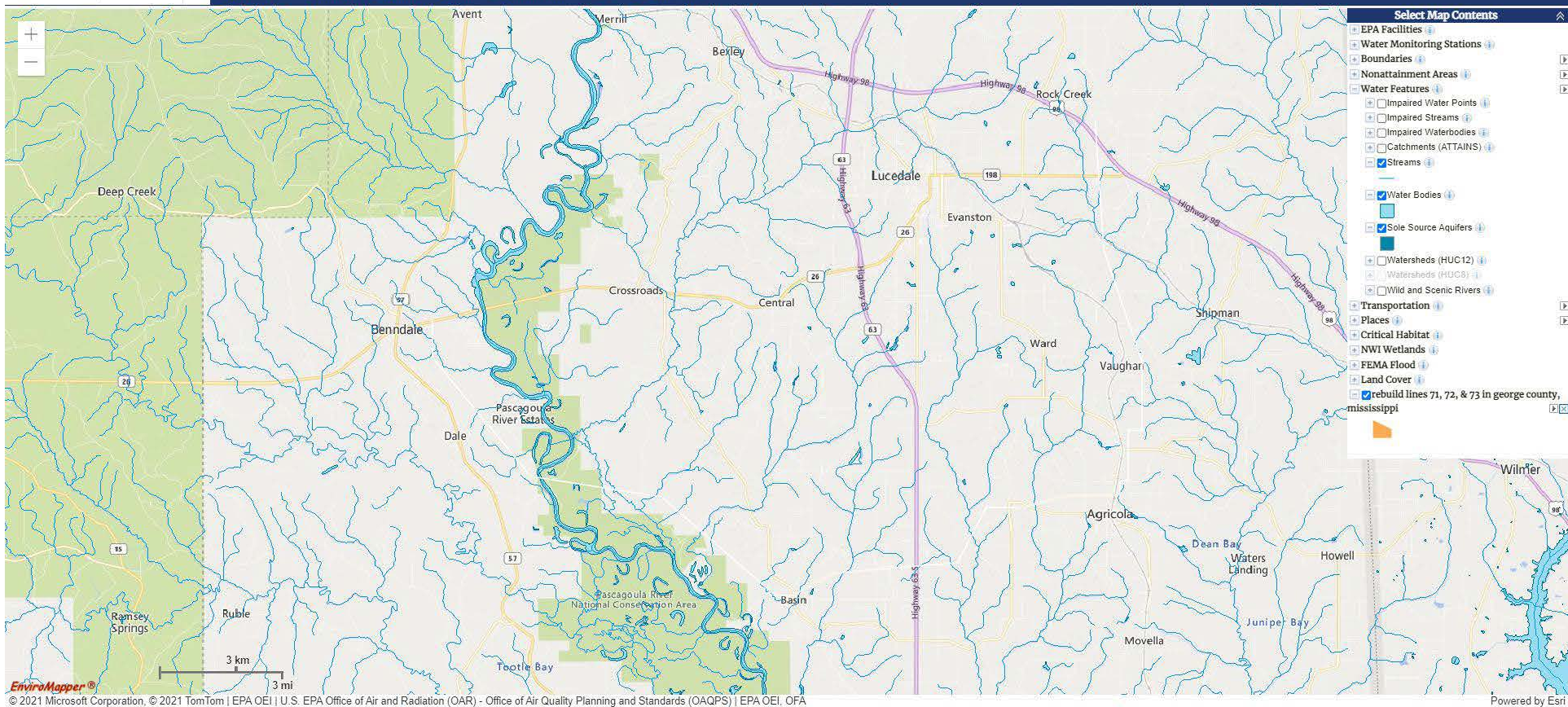
If there are any indications of environmental constraints within the boundaries of this project that must be addressed, please notify us as soon as possible so that such problems can be resolved. If none exist, a letter from your office would be greatly appreciated so that it may be incorporated as a part of the environmental assessment.

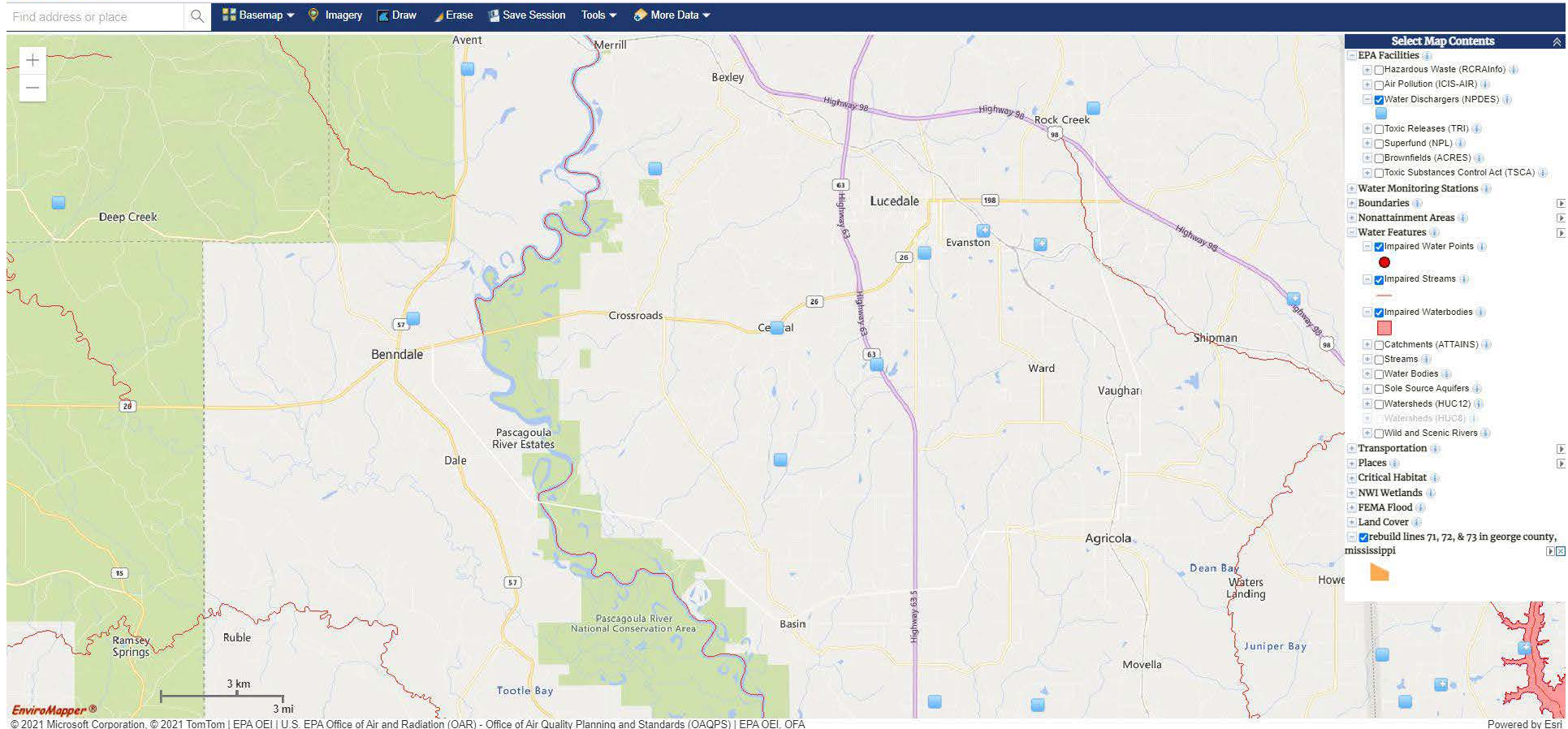
Best regards,

A handwritten signature in black ink, appearing to read 'Hank Sossaman', written over the printed name.

Hank Sossaman
Environmental Specialist

Find address or place | Basemap | Imagery | Draw | Erase | Save Session | Tools | More Data





Appendix J


Socioeconomics & Environmental Justice

QuickFacts

George County, Mississippi

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

All Topics	George County, Mississippi
Population estimates, July 1, 2019, (V2019)	24,500
 PEOPLE	
Population	
Population estimates, July 1, 2019, (V2019)	24,500
Population estimates base, April 1, 2010, (V2019)	22,583
Population, percent change - April 1, 2010 (estimates base) to July 1, 2019, (V2019)	8.5%
Population, Census, April 1, 2020	24,350
Population, Census, April 1, 2010	22,578
Age and Sex	
Persons under 5 years, percent	▲ 7.5%
Persons under 18 years, percent	▲ 26.4%
Persons 65 years and over, percent	▲ 14.6%
Female persons, percent	▲ 49.5%
Race and Hispanic Origin	
White alone, percent	▲ 89.7%
Black or African American alone, percent (a)	▲ 7.7%
American Indian and Alaska Native alone, percent (a)	▲ 0.5%
Asian alone, percent (a)	▲ 0.8%
Native Hawaiian and Other Pacific Islander alone, percent (a)	▲ Z
Two or More Races, percent	▲ 1.2%
Hispanic or Latino, percent (b)	▲ 3.0%
White alone, not Hispanic or Latino, percent	▲ 87.0%
Population Characteristics	
Veterans, 2015-2019	1,559
Foreign born persons, percent, 2015-2019	1.1%
Housing	
Housing units, July 1, 2019, (V2019)	9,590
Owner-occupied housing unit rate, 2015-2019	81.8%
Median value of owner-occupied housing units, 2015-2019	\$110,800
Median selected monthly owner costs -with a mortgage, 2015-2019	\$1,076
Median selected monthly owner costs -without a mortgage, 2015-2019	\$309
Median gross rent, 2015-2019	\$764
Building permits, 2020	4
Families & Living Arrangements	
Households, 2015-2019	7,582
Persons per household, 2015-2019	3.08
Living in same house 1 year ago, percent of persons age 1 year+, 2015-2019	91.5%
Language other than English spoken at home, percent of persons age 5 years+, 2015-2019	3.7%
Computer and Internet Use	
Households with a computer, percent, 2015-2019	78.1%
Households with a broadband Internet subscription, percent, 2015-2019	64.5%
Education	
High school graduate or higher, percent of persons age 25 years+, 2015-2019	84.3%
Bachelor's degree or higher, percent of persons age 25 years+, 2015-2019	13.8%
Health	
With a disability, under age 65 years, percent, 2015-2019	13.3%
Persons without health insurance, under age 65 years, percent	▲ 16.8%
Economy	
In civilian labor force, total, percent of population age 16 years+, 2015-2019	52.3%
In civilian labor force, female, percent of population age 16 years+, 2015-2019	47.1%
Total accommodation and food services sales, 2012 (\$1,000) (c)	15,413
Total health care and social assistance receipts/revenue, 2012 (\$1,000) (c)	74,890

Total manufacturers shipments, 2012 (\$1,000) (c)	D
Total retail sales, 2012 (\$1,000) (c)	229,453
Total retail sales per capita, 2012 (c)	\$10,007
Transportation	
Mean travel time to work (minutes), workers age 16 years+, 2015-2019	33.1
Income & Poverty	
Median household income (in 2019 dollars), 2015-2019	\$47,292
Per capita income in past 12 months (in 2019 dollars), 2015-2019	\$22,732
Persons in poverty, percent	▲ 18.6%

BUSINESSES

Businesses

Total employer establishments, 2019	338
Total employment, 2019	3,625
Total annual payroll, 2019 (\$1,000)	125,841
Total employment, percent change, 2018-2019	-2.6%
Total nonemployer establishments, 2018	1,467
All firms, 2012	1,585
Men-owned firms, 2012	704
Women-owned firms, 2012	668
Minority-owned firms, 2012	158
Nonminority-owned firms, 2012	1,341
Veteran-owned firms, 2012	77
Nonveteran-owned firms, 2012	1,393

GEOGRAPHY

Geography

Population per square mile, 2010	47.2
Land area in square miles, 2010	478.71
FIPS Code	28039

About datasets used in this table

Value Notes

Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info icon to the row in TABLE view to learn about sampling error.

The vintage year (e.g., V2019) refers to the final year of the series (2010 thru 2019). Different vintage years of estimates are not comparable.

Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

- D Suppressed to avoid disclosure of confidential information
- F Fewer than 25 firms
- FN Footnote on this item in place of data
- NA Not available
- S Suppressed; does not meet publication standards
- X Not applicable
- Z Value greater than zero but less than half unit of measure shown
- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper in open ended distribution.
- N Data for this geographic area cannot be displayed because the number of sample cases is too small.

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

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QuickFacts

Mississippi; United States

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

Table

All Topics	Mississippi	United States
Population estimates, July 1, 2019, (V2019)	2,976,149	328,239,523
 PEOPLE		
Population		
Population estimates, July 1, 2019, (V2019)	2,976,149	328,239,523
Population estimates base, April 1, 2010, (V2019)	2,968,130	308,758,105
Population, percent change - April 1, 2010 (estimates base) to July 1, 2019, (V2019)	0.3%	6.3%
Population, Census, April 1, 2020	2,961,279	331,449,281
Population, Census, April 1, 2010	2,967,297	308,745,538
Age and Sex		
Persons under 5 years, percent	▲ 6.2%	▲ 6.0%
Persons under 18 years, percent	▲ 23.5%	▲ 22.3%
Persons 65 years and over, percent	▲ 16.4%	▲ 16.5%
Female persons, percent	▲ 51.5%	▲ 50.8%
Race and Hispanic Origin		
White alone, percent	▲ 59.1%	▲ 76.3%
Black or African American alone, percent (a)	▲ 37.8%	▲ 13.4%
American Indian and Alaska Native alone, percent (a)	▲ 0.6%	▲ 1.3%
Asian alone, percent (a)	▲ 1.1%	▲ 5.9%
Native Hawaiian and Other Pacific Islander alone, percent (a)	▲ 0.1%	▲ 0.2%
Two or More Races, percent	▲ 1.3%	▲ 2.8%
Hispanic or Latino, percent (b)	▲ 3.4%	▲ 18.5%
White alone, not Hispanic or Latino, percent	▲ 56.4%	▲ 60.1%
Population Characteristics		
Veterans, 2015-2019	165,538	18,230,322
Foreign born persons, percent, 2015-2019	2.4%	13.6%
Housing		
Housing units, July 1, 2019, (V2019)	1,339,021	139,684,244
Owner-occupied housing unit rate, 2015-2019	68.2%	64.0%
Median value of owner-occupied housing units, 2015-2019	\$119,000	\$217,500
Median selected monthly owner costs -with a mortgage, 2015-2019	\$1,147	\$1,595
Median selected monthly owner costs -without a mortgage, 2015-2019	\$359	\$500
Median gross rent, 2015-2019	\$780	\$1,062
Building permits, 2020	7,810	1,471,141
Families & Living Arrangements		
Households, 2015-2019	1,104,394	120,756,048
Persons per household, 2015-2019	2.62	2.62
Living in same house 1 year ago, percent of persons age 1 year+, 2015-2019	86.9%	85.8%
Language other than English spoken at home, percent of persons age 5 years+, 2015-2019	4.0%	21.6%
Computer and Internet Use		
Households with a computer, percent, 2015-2019	83.8%	90.3%
Households with a broadband Internet subscription, percent, 2015-2019	71.5%	82.7%
Education		
High school graduate or higher, percent of persons age 25 years+, 2015-2019	84.5%	88.0%
Bachelor's degree or higher, percent of persons age 25 years+, 2015-2019	22.0%	32.1%
Health		
With a disability, under age 65 years, percent, 2015-2019	11.9%	8.6%
Persons without health insurance, under age 65 years, percent	▲ 15.4%	▲ 9.5%
Economy		
In civilian labor force, total, percent of population age 16 years+, 2015-2019	56.7%	63.0%
In civilian labor force, female, percent of population age 16 years+, 2015-2019	53.4%	58.3%

Total accommodation and food services sales, 2012 (\$1,000) (c)	6,899,175	708,138,598
Total health care and social assistance receipts/revenue, 2012 (\$1,000) (c)	18,630,587	2,040,441,203
Total manufacturers shipments, 2012 (\$1,000) (c)	66,441,608	5,696,729,632
Total retail sales, 2012 (\$1,000) (c)	37,053,190	4,219,821,871
Total retail sales per capita, 2012 (c)	\$12,413	\$13,443

Transportation

Mean travel time to work (minutes), workers age 16 years+, 2015-2019	24.8	26.9
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Income & Poverty

Median household income (in 2019 dollars), 2015-2019	\$45,081	\$62,843
Per capita income in past 12 months (in 2019 dollars), 2015-2019	\$24,369	\$34,103
Persons in poverty, percent	▲ 19.6%	▲ 10.5%

BUSINESSES

Businesses

Total employer establishments, 2019	59,130	7,959,103
Total employment, 2019	958,126	132,989,428
Total annual payroll, 2019 (\$1,000)	37,730,520	7,428,553,593
Total employment, percent change, 2018-2019	1.4%	1.6%
Total nonemployer establishments, 2018	222,159	26,485,532
All firms, 2012	235,454	27,626,360
Men-owned firms, 2012	125,079	14,844,597
Women-owned firms, 2012	89,159	9,878,397
Minority-owned firms, 2012	74,824	7,952,386
Nonminority-owned firms, 2012	155,094	18,987,918
Veteran-owned firms, 2012	26,789	2,521,682
Nonveteran-owned firms, 2012	198,566	24,070,665


GEOGRAPHY

Geography

Population per square mile, 2010	63.2	87.4
Land area in square miles, 2010	46,923.27	3,531,905.43
FIPS Code	28	1

Value Notes

 Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info  icon to the row in TABLE view to learn about sampling error.

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Fact Notes

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- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

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EPA EJSCREEN

EPA's Environmental Justice Screening and Mapping Tool (Version 2020)

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☒ Compare to US☐ Compare to State

Category:

Environmental Indicators

Demographic Indicators

EJ Indexes

Variable:

Demographic Index

People of Color Population

Low Income Population

Linguistically Isolated

Less Than HS Education

Under Age 5

Over Age 64

Add to Map

Select Map Contents

☒ rebuild lines 71, 72, & 7...

☒ EJSCREEN Map

Demographic Index (National Percentiles)

95 - 100 percentile

90 - 95 percentile

80 - 90 percentile

70 - 80 percentile

60 - 70 percentile

50 - 60 percentile

Less than 50 percentile

Data not available

BenndaleDaleBasin

LucedaleEvanstonVaughanAgricola

Escalante River

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Category:

Environmental Indicators

Demographic Indicators

EJ Indexes

Variable:

Demographic Index

People of Color Population

Low Income Population

Linguistically Isolated

Less Than HS Education

Under Age 5

Over Age 64

Add to Map

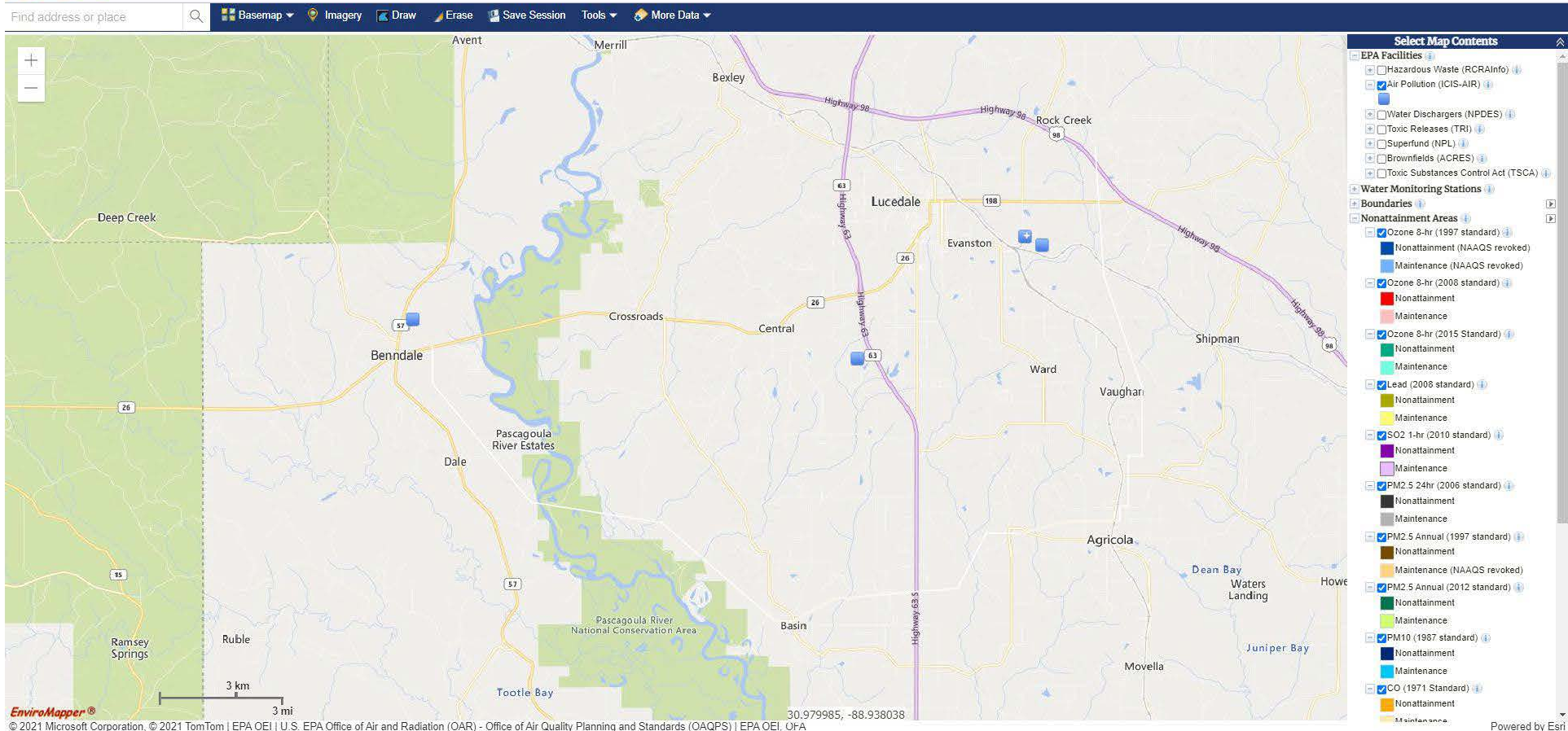
EnviroMapper®

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

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Appendix K

Air Quality





STATE OF MISSISSIPPI
TATE REEVES

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, INTERIM EXECUTIVE DIRECTOR

May 6, 2020

Hank Sossaman
Cooperative Energy
PO Box 15849
Hattiesburg, MS 39404

Dear Mr. Sossaman:

Re: Rebuild Line 71, 72, & 73
Electrical System Improvements
Environmental Assessment
George County

We have reviewed the information submitted on the referenced proposed project. From the information provided, we find no expected adverse environmental impact from the construction of the proposed project.

Please be aware if the project is disturbing more than 1 acre, it will require coverage under a construction general permit for control of stormwater/sediment runoff. For coverage required prior to commencement of construction, please contact the appropriate MDEQ Permitting branch. For wetlands permitting concerns, please contact the US Army Corp of Engineers and the MDEQ Water Quality Certification Branch.

From the information provided, we find no expected adverse environmental impact from the construction of the proposed project. This letter should not be interpreted as equivalent to any approval or permit that may be required for this project. Please be reminded that it is the full responsibility of the owner to ensure all other approvals, permits, clearances, easements, agreements, etc., which may be required prior to or during construction of the project have been or will be obtained.

If you have any questions, please contact me at (601) 961-5067.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dmitry Asanov".

Dmitriy A. Asanov, E.I.T.
Municipal and Private Facilities Branch
Environmental Permits Division



Post Office Box 15849
Hattiesburg, MS 39404-5849
(601) 268-2083

CooperativeEnergy.com

April 27, 2020

Mississippi Department
of Environmental Quality
P.O. Box 10385
Jackson, MS 39289-0385

To Whom It May Concern:

Notice is hereby given that Cooperative Energy of Hattiesburg, Mississippi will submit loan applications to the Rural Utilities Service (RUS) for the purpose of financing the reconstruction of the following facilities referred to as the proposed Rebuild Lines 71, 72, & 73 Project in George County, MS:

The existing transmission line 71 begins in the South $\frac{1}{2}$ of the North $\frac{1}{2}$ of Section 16, Township 2 South, Range 8 West, in George County, Mississippi at Cooperative Energy's existing Benndale 69kV substation, then runs generally South 0.6 miles, then runs generally Southeasterly approximately 4.1 miles, then runs generally East for approximately 3.3 miles, then runs generally Southeasterly approximately 3.5 miles, then generally East approximately 0.6 miles, then to Cooperative Energy's existing Basin 69 kilovolt (kV) Gang Operated Air Brake (GOAB) located in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi.

The existing transmission line 72 begins in the Southwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 13, Township 3 South, Range 7 West, in George County, Mississippi at Cooperative Energy's existing Basin GOAB 69kV Switching Station, then runs generally West 0.18 miles, then runs generally Northeast approximately 1.00 mile, then runs generally East for approximately 2.89 miles, then runs generally Northeast approximately 1.54 miles, then runs generally East approximately 0.94 miles, then runs generally Northeast approximately 1.02 miles, then runs generally East 1.28 miles, then generally North 0.30 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The existing transmission line 73 begins in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 30, Township 1 South, Range 5 West, in George County, Mississippi at Cooperative Energy's existing Rocky Creek 69kV Switching Station, then runs generally West 0.08 miles, then runs generally South approximately 0.64 miles, then runs generally Southwest for approximately 0.33 miles, then runs generally South approximately 1.36 miles, then runs generally Southeast approximately 2.82 miles, then runs generally South approximately 1.26 miles, then runs generally West 0.27 miles, then runs generally South 1.02 miles, then runs generally West 0.22 miles, then runs generally South 0.20 miles to Cooperative Energy's existing Agricola 69kV Switching Station located in the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 6, Township 3 South, Range 5 West, in George County, Mississippi.

The rebuild will replace end of life wood transmission poles with modern steel/concrete poles. The rebuilt transmission lines will be insulated to 161kV for the purpose of flexibility should future voltage updates become necessary.

Cooperative Energy will be required to submit an environmental assessment of the project to the USDA's Rural Utilities Services (RUS).

The project referred to is shown on the enclosed maps. Please advise if there are any environmental constraints associated with this project area that should be avoided or dealt with under your jurisdiction.

If there are any indications of environmental constraints within the boundaries of this project that must be addressed, please notify us as soon as possible so that such problems can be resolved. If none exist, a letter from your office would be greatly appreciated so that it may be incorporated as a part of the environmental assessment.

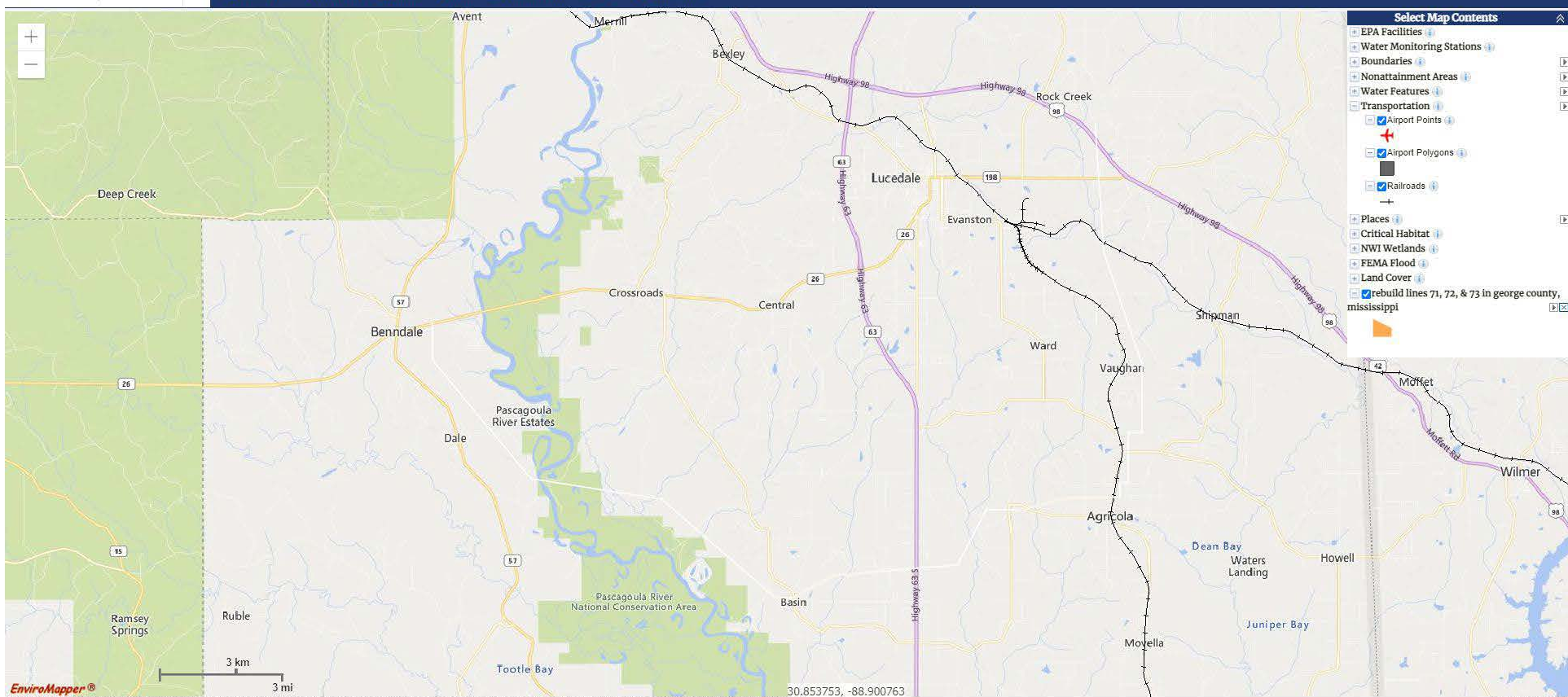
Best regards,

A handwritten signature in black ink, appearing to read 'Hank Sossaman', written over the printed name.

Hank Sossaman
Environmental Specialist

Appendix L

Transportation



Appendix M

Environmental Risk Management

