Environmental Assessment

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Prepared for:

U.S. Department of Agriculture, Rural Utilities Service

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ACRONYMS AND ABBREVIATIONS

AECC	Arkansas Electric Cooperative Corporation
ADEQ	Arkansas Department of Energy and Environment, Division of Environmental Quality
AGI	American Geosciences Institute
AGS	Arkansas Geological Survey
AHPP	Arkansas Historic Preservation Program
AMA	Allgeier, Martin, and Associates, Inc.
AMASDA	Automated Management of Archeological Site Data in Arkansas
APE	Area of Potential Effect
APP	Avian Protection Plan
APSC	Arkansas Public Service Commission
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CECC	Carroll Electric Cooperative Corporation
CECPN	Certificate of Environmental Compatibility and Public Need
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
ECDs	erosion control devices
EIS	Environmental Impact Statement and Alternative Route Analysis
EMF	electric and magnetic fields
EMR	electric and magnetic radiation
ESA	Endangered Species Act
EPRI	Electric Power Research Institute
FAA	Federal Aviation Administration
FPO	Federal Preservation Office
FEMA	Federal Emergency Management Agency
GIS	geographic information system
GLO	General Land Office
HUC	Hydrologic Unit Code

kV	kilovolt
MBTA	Migratory Bird Treaty Act
Merjent	Merjent, Inc.
NESC	National Electric Safety Code
NEPA	National Environmental Policy Act
NHO	Native Hawaiian Organization
NHPA	National Historic Preservation Act
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
Project	Dry Creek to Smyrna Transmission Line Project
RD	Rural Development
RUS	U.S. Department of Agriculture Rural Utilities Service
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SOI	Secretary of the Interior
STAA	Short Term Activity Authorization
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 PURPOSE AND NEED

1.1 Project Description

Carroll Electric Cooperative Corporation (CECC) is proposing to construct and operate the Dry Creek to Smyrna Transmission Line Project (Project), which consists of approximately 31.4 miles of new 161 kilovolt (kV) transmission line between the Dry Creek Switching Station in Carroll County to the Smyrna Transmission-Distribution Substation in Madison County, Arkansas. CECC will utilize a 100-foot-wide right-of-way (ROW) to construct the transmission line (50 feet on either side of the line), additional ROW to install guy wires, and temporary construction access roads to construct the transmission line. About 409.8 acres of ROW and 20 acres of temporary access roads will be required to construct the transmission line. Figure 1.1 illustrates the location of the proposed transmission line and Appendix A includes detailed aerial-based route maps.

This Environmental Assessment (EA) documents route development methodologies, identifies and evaluates potential alternative routes, identifies the environmental and land use constraints within the study area, evaluates potential construction and operational impacts, and identifies measures for avoiding or minimizing construction and operational impacts. The EA may also be used to support any additional local, state, or federal permitting activities that may be required for construction of the transmission line.

U.S. Department of Agriculture (USDA), Rural Development (RD) is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service (RUS). 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 Rural Electrification Act of 1936, as amended (7 U.S.C. 901 et seq.), generally authorizes the Secretary of Agriculture to make rural electrification and telecommunication loans, and specifies eligible borrowers, references, purposes, terms and conditions, and security requirements. USDA RUS is authorized to make loans and loan guarantees to finance the construction of electric distribution, transmission, and generation facilities including system improvements and replacements required to furnish and improve electric service in rural areas, as well as demand-side management, electricity conservation programs, and on- and off-grid renewable electricity systems. CECC is requesting finance assistance from RUS for the Project.

As part of its review process, RUS is required to complete the National Environmental Policy Act (NEPA) process, along with other technical and financial considerations, in processing CECC's request for financial assistance. Other RUS actions include:

- providing engineering reviews of the purpose and need, engineering feasibility, and cost of the proposed Project;
- ensuring that the proposed Project meets the borrower's requirements and prudent utility practices;
- evaluating the financial ability of the borrower to repay its potential financial obligations to RUS;

- reviewing the alternatives to improve transmission reliability issues;

- ensuring that adequate transmission service and capacity are available to meet the proposed Project needs; and

- ensuring that NEPA and other environmental laws and requirements and RUS environmental policies and procedures are satisfied prior to taking a Federal action, including floodplain management (see Section 3.2), farmland conversion (see Section 3.1.2), and National Historic Preservation Act (NHPA) compliance (see Section 3.7).

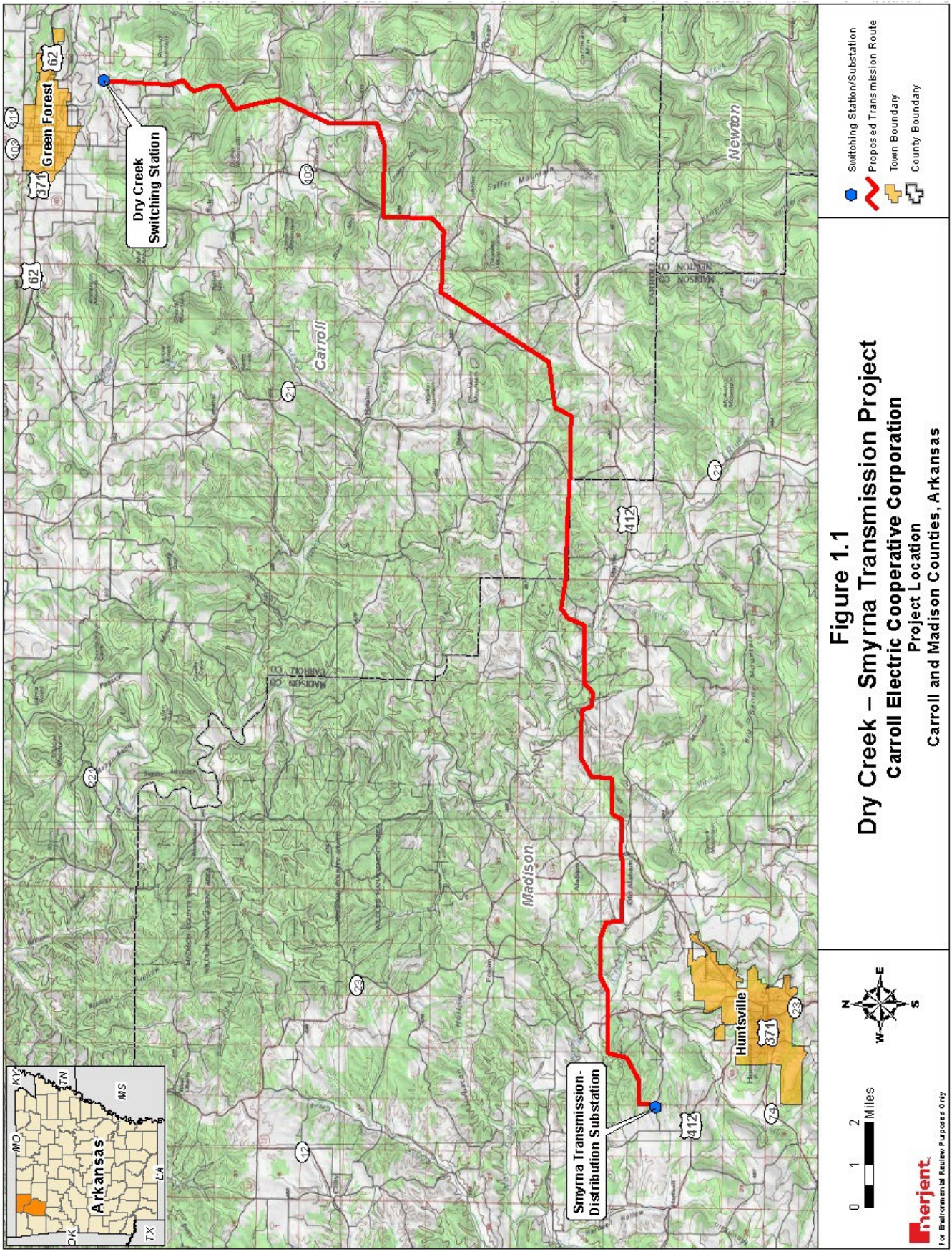
1.2 Purpose and Need of the Proposed Action

The purpose of the Project is to provide additional infrastructure to support the increasing need for energy and improve the quality of service in northwest Arkansas that spans about half of Madison County, half of Carroll County, and a small portion of Newton County. The proposed infrastructure will accommodate projected energy needs during peak demand periods and increase reliability of service for its customers. In the last year CECC has experienced two incidents this Project would have helped alleviate. First, the Arkansas Electric Cooperative Corporation (AECC) Osage Creek Transmission Substation lost one of its two power transformers, leaving a single power transformer to supply energy to the region for several weeks until the second power transformer was replaced. Had the Project been complete, grid operations would have experienced minimal impact. Second, one of the structures between CECC's Eureka Springs Substation and AECC's Osage Creek Transmission Substation failed, leaving the region to be served by a single feed from Osage Creek Transmission Substation instead of the two feeds customers normally rely on. This Project would have cut in half the distance electricity would have had to travel, reduced the voltage drop, and mitigated voltage swings the region experienced. The establishment of new transmission line infrastructure in this region is needed to ensure continuation of service and adequate voltage for users.

1.3 Project Location

The proposed transmission line is in Carroll and Madison counties, Arkansas. The north terminus for the transmission line is the Dry Creek Switching Station located approximately 1.5 miles southeast of Green Forest, Arkansas (Latitude 36.314697, Longitude -93.413562). The south terminus of the transmission line is the CECC Smyrna Transmission-Distribution Substation located approximately 2.7 miles northwest of Huntsville, Arkansas (Latitude 36.124981, Longitude -93765756).

The transmission line falls within the Ozark Plateau Physiographic Province of the United States (U.S.) Interior Highlands, which covers the majority of northern Arkansas. Topographically, the western half of transmission line is characterized by moderately rolling to relatively flat terrain. The eastern half of the transmission line is more mountainous and consists of several high ridgetops, steeply sloped terrain, and flat valley bottoms.


Dry Creek Switching Station
Green Forest
Smyrna Transmission-Distribution Substation
Huntsville
Carroll
Madison
Newton
Arkansas
Switching Station/Substation
Proposed Transmission Route
Town Boundary
County Boundary
0 1 2 Miles
Figure 1.1
Dry Creek – Smyrna Transmission Project
Carroll Electric Cooperative Corporation
Project Location
Carroll and Madison Counties, Arkansas
Merjent
For Environmental Review Purposes Only

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION AND NO ACTION

2.1 Proposed Action

2.1.1 Right-of-Way

CECC has designed the transmission line under its existing standards for 161-kV ROW, which is generally 100 feet wide for H-frame steel structures. Additional ROW is required to accommodate supportive guy wires for angle structures. In such cases, additional ROW easements are obtained on an individual basis from affected landowners.

CECC obtained easements for the ROW from all but two landowners along the preferred transmission line route. Negotiations with the remaining landowners are ongoing and will be finalized prior to initiating construction. Construction will not commence until all easements are obtained.

Property owners maintain ownership of the property with certain limitations on usage within the ROW easement. The easements restrict property owners from building permanent structures within the ROW that may hinder access for maintenance of the transmission line or ROW. Planting vegetation that has the potential to impact the reliability or safety of the transmission line will also be restricted.

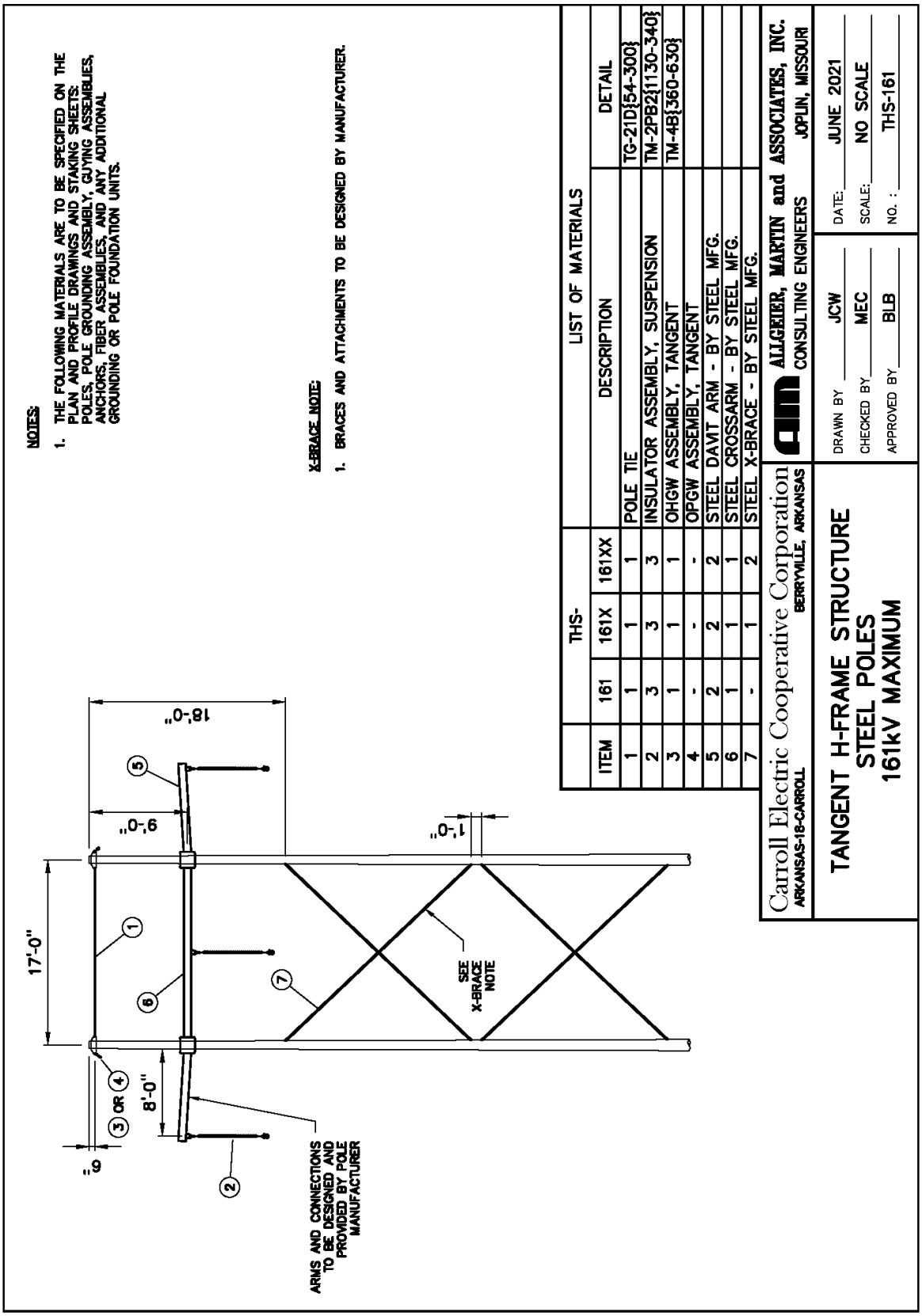
2.1.2 Structures

CECC personnel in collaboration with Allgeier, Martin, and Associates, Inc. (AMA) have designed and engineered the Project to adhere to current National Electric Safety Code (NESC) standards and clearances, the RUS Transmission Design Manual, as well as all relevant state and federal statutes. Transmission line structures will be standard insulated 161 kV overhead transmission line design primarily using two to three modular steel structures that can provide tangent, angle turns, and dead-ends. Figure 2.1 illustrates the typical design of the proposed tangent structures. Auger holes for structure footings will measure approximately 42 inches in diameter, with excavation depths between 7 and 14 feet. Structures may vary in height depending on the landscape, environmental considerations, and NESC and RUS clearance requirements but are not anticipated to typically exceed 100 feet above ground level. Span distances will generally range between 400 to 1,000 feet depending on topography and clearance requirements. The design plan calls for approximately 46 angle structures, which require guy wires. When used, guy wires will typically not extend more than 100 feet from a structure.

2.1.3 Surveying and Staking

The first step of construction will involve marking the limits of the approved 100-foot-wide construction corridor, guy wire work areas, access roads, existing utility lines, and other special areas or features. This operation may require limited clearing for line of sight and distance measuring and the use of limited personnel, small equipment, and light trucks. CECC will mark approved access roads using temporary signs or flagging. Avoidance areas will be marked and flagged to ensure protective measures are implemented around these features. CECC will notify landowners in advance of construction activities that will affect their property, business, or operations. CECC's construction contractor will contact the Arkansas One-Call system to locate, identify, and flag existing underground utilities to prevent accidental damage during transmission line construction.

Figure 2.1 Typical Tangent H-Frame Structure



2.1.4 Clearing and Grading

After staking is complete, the clearing crew will mobilize to the construction area. ROW clearing will be performed by contracted crews under the supervision of CECC personnel. Fences along the ROW will be cut and braced, and temporary gates and fences will be installed to contain livestock, if present. The ROW will then be cleared of any vegetation that will hinder erecting structures or stringing line.

The time and method of clearing ROW will consider soil stability, the protection of natural vegetation, sensitive habitats, the protection of adjacent resources such as natural habitat for plants and wildlife, and sediment deposition in wetlands or waterbodies. Clearing will be performed in a manner that will minimize impacts to these resources, as described throughout Sections 2.1.4 and 3.0. Root systems will be left in place along streambanks to aid in streambank stabilization.

2.1.5 Structure and Wire Installation

Temporary erosion controls will be installed within the ROW according to the Project's Stormwater Pollution Prevention Plan (SWPPP) immediately after initial disturbance of the soil and will be maintained throughout construction. The SWPPP has been developed to comply with the Arkansas Department of Energy and Environment, Division of Environmental Quality's (ADEQ) General Stormwater Permit. The ADEQ has reviewed the SWPPP and issued a Notice of Coverage for the Project. Temporary erosion control measures will remain in place until permanent erosion controls are installed, or restoration is complete. CECC personnel and the construction contractor will monitor the ROW to ensure erosion controls are properly installed and maintained and to determine if additional erosion controls are necessary if problem areas develop during construction or restoration. Construction may be suspended during abnormally wet conditions to prevent excessive rutting or mixing of topsoil with subsoils.

After vegetation is cleared, CECC will mark the location of each structure. Digger derrick trucks with augers will be used to dig holes to set structure footings at depths that comply with RUS overhead construction standards. Footings generally measure approximately 42 inches in diameter with depths between 7 and 14 feet. Structures are transported to the site, staged at each location, and assembled and erected within the ROW. Blocks and pulleys are used to pull the conductors through the insulators on all of the structures before the wires are tightened and secured in place. Each structure location typically requires a 30- by 30-foot work area and each conductor pull location typically require a 50- by 50-foot work area for construction. Ground disturbance will be limited to the structure and conductor pull location work areas and additional areas within the ROW to move equipment and supplies. Therefore, ground disturbances will be less then what is presented in Section 3.0 of this EA, which considers the entire 100-foot-wide ROW as the work area.

Once construction is complete, CECC will remove all construction-related equipment and debris and restore the area to its original condition, to the extent possible. Restoration will include regrading disturbed areas where necessary and reseeding to ensure ground cover is restored. CECC will work with landowners to establish vegetation that will not impact crops, that is consistent with current pasture vegetation, or that can be tilled and cultivated when the landowner decides to use the area. Best management practices (BMPs) that CECC proposes to implement to further avoid or minimize impacts on or to restore the natural and human environment are discussed throughout Section 3.0.

2.1.6 Facility Maintenance

CECC will conduct transmission line maintenance throughout its lifespan. Maintenance will include routine inspections, replacing damaged structures, and removing vegetation that poses a risk to service or safety. All maintenance activities will occur within the 100-foot-wide ROW, accessed from existing public or farm roads. The process and BMPs for routine vegetation management within the ROW is detailed in CECC's Vegetation Management Plan which can be obtained on CECC's website at: https://www.carrollecc.com/why-is-vegetation-management-important.

2.2 Other Alternatives Evaluated

AMA and CECC utilized a corridor and route evaluation process that incorporates information gathered from public sources, public feedback, and dialog with landowners who could potentially be directly affected. The information and data were compiled and managed in a geographic information system (GIS) spatial database. Using these steps, AMA and CECC identified 17 routes alternatives, including the preferred route. The corridor and route analysis processes are discussed in detail in Section 3.13 and the 17 route alternatives are presented in Figure 3.13-3.

CECC coordinated with landowners along the identified route alternatives. Based on routing conversations with landowners and consideration of the feasibility of constructing the identified route alternatives, CECC identified a preferred route that has been accepted by all but two landowners, sites structures outside of resources identified during field surveys to the extent practicable while considering engineering and span requirements, and minimizes the length of the route to the extent practicable to minimize the number of structures needed to construct the Project and cost required to construct and maintain the transmission facility.

After the 17 alternatives were evaluated with landowners and the preferred route was selected, CECC completed biological and cultural resource surveys along the preferred route. CECC and AMA utilized the survey data to adjust structure locations along the preferred route. Structures were sited to maximize distance from identified karst features, to avoid wetland and waterbodies to the extent practicable, and to avoid contributing portions of eligible cultural resource sites to the extent feasible. Where avoidance was not feasible, BMPs will be implemented to minimize and mitigate impacts to resources along the preferred route as discussed throughout Section 3.0. Where the remaining easement has not been obtained, small route variations may be incorporated to accommodate landowner negotiations. CECC does not anticipate the route variations would change significantly from the current route design.

2.3 No Action

Under the No-Action Alternative, CECC will not construct or operate the proposed 161-kV transmission line. Benefits from the proposed Project, as described in Section 1.2, will not occur. Demand for energy in the northwest-central Arkansas area is projected to continue to grow. CECC would be unable to meet this need and it is anticipated that the region would experience outages during periods of peak use. Outages would also occur as a result of damage to aging infrastructure, which could lead to both short and long-term loss of power to some users depending on the severity of damage. CECC has determined the No-Action Alternative to be unreasonable since they would be unable to meet customer needs.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

CECC has designed and sited the proposed transmission line to avoid or minimize impacts to the natural and human environment to the greatest extent practicable while meeting the Project's purpose and need. CECC will implement BMPs described in the following subsections of Section 3.0 to further minimize Project impacts. Section 5.0 compiles and presents the mitigation measures for the Project. CECC will adopt and incorporate environmental permit conditions into its construction specifications and contract documents and will enforce these conditions throughout construction and operation of the transmission line.

3.1 Land Use

3.1.1 General Land Use

Affected Environment

The proposed transmission line extents through a rural area predominantly used for cattle pasture and hay production. Of the 409.8 acres of proposed powerline easement, 189.8 acres (46%) are classified as deciduous forest, 159.3 acres (39%) as pasture or hay field, 17.4 acres (4%) as developed open space, 14.1 acres (3%) as mixed forest, 13.7 acres (3%) as herbaceous vegetation, and the remaining 5% as a mix of scrub shrub and evergreen forest (U.S. Geological Survey [USGS] 2016). Although there are occasional homes, farms, and outbuildings, there are no urban or developed areas near the Project. Of the few structures near the proposed transmission line, most are associated poultry production. All of the land within the ROW is privately owned; therefore, there are no public lands or parks within or abutting the ROW.

Formally classified lands include the following: National Park System Units which includes National Parks, National Monuments, National Preserves, National Historic Sites, National Historic Parks, National Memorials, National Battlefields, National Cemeteries, National Recreation Areas, National Seashores, National Lakeshores, National Rivers, National Parkways, National Trails, Affiliated Areas, National Heritage Areas, National Natural Landmarks and other designations managed by the National Park Service (NPS); National Monuments, managed by the Bureau of Land Management (BLM), U.S. Forest Service (USFS), and the National Oceanic and Atmospheric Administration (NOAA); National Marine Sanctuaries, National Estuarine Research Reserves, and Coastal Zones managed by NOAA; National Conservation Lands which include the National Monuments, National Conservation Areas, Wilderness Areas, Wilderness Study Areas, Wild and Scenic Rivers, National Scenic and Historic Trails, Cooperative Management and Protection Areas, Outstanding Natural Areas, and Conservation Lands of the California Desert managed by the BLM; National Forests and National Grasslands managed by the USFS; Coordination Areas, National Wildlife Refuges, and Waterfowl Production Areas managed by the U.S. Fish and Wildlife Service (USFWS); Coastal Barrier Resource System managed by USFWS and state environmental agencies; areas of state and local interest; and United Nations Educational, Scientific and Cultural Organization Biosphere Reserves.

CECC reviewed the U.S. Environmental Protection Agency (USEPA) NEPAssist database to identify potential classified lands and other environmental data that could be affected by the Project (USEPA 2022a). Results of the NEPAssist review are provided in Appendix C. No formally classified lands were identified by the NEPAssist review. According to the National Park Service Land Resources Division Boundary and Tract Data Service (NPS 2022), there are no lands managed by the NPS within 1-mile of the Project. According to the BLM National Data Map Viewer, there are no lands managed by the BLM within

1-mile of the Project (BLM 2022). The Project site was also evaluated against the National Forest System Interactive Map (USFS 2022) and USFWS Realty Tracts (USFWS 2022a) and no USFS or USFWS managed lands are within 1-mile of the Project. Results of the NPS, BLM, and USFS database revies are presented in Appendix C. No U.S. Biosphere Reserves are present in the state of Arkansas (UNESCO 2022). Therefore, no federal formally classified lands will be affected by the Project.

CECC reviewed the ADEQ's EnviroView Database and the Arkansas GIS Office public data for areas of state or local interest. Results of the state database reviews are provided in Appendix D. The only classified area crossed by the Project is the Kings River, which is designated by the ADEQ (2020a) as an extraordinary resource water and natural and scenic waterway (see Section 3.4.1). No other formally classified lands identified in the state database reviews are crossed by the Project. As shown in Appendix D, ecologically sensitive springs and seeps (see Section 3.1.3), the Withrow Springs State Park, and the War Eagle Trail within the state park are located approximately 0.5-mile north of the Project and would not be affected by the Project.

Environmental Consequence

Certain land uses will be impacted by the construction, operation, and maintenance of the transmission line but the impacts are anticipated to be negligible to minor. Clearing the ROW will result in the permanent conversion of approximately 210 acres of forested land to open land. Forest will be replaced with other herbaceous vegetation and will generally be maintained in an herbaceous state to eliminate taller trees and shrubs that could impact the transmission line. None of the forested areas that will be impacted by the Project are used for silviculture or other commercial purposes.

The primary land use impact associated with linear transmission lines is the restrictions that are detailed in easement agreements. Landowners will not be allowed to construct buildings, structures, water impoundments, or other obstructions within 50 feet of the transmission line (e.g., within the ROW). However, given the primary land use within the ROW is pasture and hay land, this restriction will not significantly alter land use within the ROW. Lands currently used for hay, rotational crops, or grazing will continue to be accessible for those uses. Where terrain is suitable, forest land converted to open land could increase hay production and grazing land.

Structures within proximity of the transmission line may be impacted by construction restrictions associated with the easement agreements. However, given the rural nature of the proposed Project, there are no inhabited structures within proximity (100 feet) of the line. All but two landowners have signed easements indicating they understand the restrictions on construction within the vicinity of the transmission line and therefore, no adverse impacts are anticipated.

Because the Project will be constructed on private land, impacts to recreational activities would be limited to use of public waters that cross public lands. The larger waterbodies that are crossed by the Project (War Eagle Creek, Kings River, Dry Fork Creek, and Osage Creek) may be used for fishing, but the location of the Project in relation to local access points to the rivers will not affect recreational fishing opportunities. Similarly, canoeing opportunities in these rivers will not be hindered by construction or operation of the Project.

Mitigation

CECC has sited the proposed transmission line in existing maintained powerline corridors and adjacent to existing electric distribution lines where possible. Because land uses will be returned to pre-construction use, no further mitigation is proposed.

3.1.2 Farmland and Soils

Affected Environment

Enders-Leesburg complex, Clarksville gravelly silt loam, Noark gravelly silt loam, and Nixa gravelly silt loam are the dominant soil associations found in the Project area. Together, these gravelly silt loam soil associations comprise 74% of the ROW. The remaining soils are comprised of loams to stony loams. Soils crossed by the Project are presented in Appendix E.

Approximately 3 percent of the ROW crosses soils associations that have a hydric soil component and are assumed to be saturated or inundated for portions of the year. These soils associations consist of Cleora fine sandy loam, Elsah silt loam, Mayes silt loam, Razort loam, and Secesh silt loam and are mostly found along the larger perennial streams crossed by the Project. Hydric soils generally have a slower infiltration rate and are prone to construction impacts such as rutting and compaction.

Prime farmland is defined by the U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS) as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses". Prime farmland is generally associated with the same hydric soils as identified above. Within the Project's ROW, the Project crosses 17.8 acres of prime farmland and 16.2 acres of farmland of statewide importance. Maps presenting prime farmland and farmland of statewide importance are provided in Appendix E.

Environmental Consequence

Construction of the transmission line has the potential to cause soil erosion or compaction. Soil erosion is generally greatest during the initial clearing of the ROW, when most vegetation is removed to provide suitable workspace for construction and installation of the transmission line. Although construction of the proposed Project will require the removal and/or disturbance of only small amounts of surface and near-surface soil material, erosion may still occur. CECC will install erosion control devices (ECDs) such as silt fence and filter logs prior to commencing ground-disturbing activities and erosion control blankets where soils are exposed and/or seeding has occurred. All disturbed areas will be revegetated per local, state, and/or federal requirements, or in accordance with landowner specifications. CECC and construction personnel will monitor the ROW to ensure ECDs are working properly, repair or replace damaged ECDs, or add additional ECDs if problem areas develop during construction or restoration of the ROW. ECDs will be removed along portions of the ROW where permanent stabilization has been achieved, which is defined as a uniform 70 percent cover of perennial non-invasive species.

The potential for soil compaction is low. Clearing of the ROW and stringing the electric wire generally requires low-weight equipment and limited travel along the ROW. Use of higher-weight equipment will be minimal and compaction impacts will be minimized by using existing public and private access roads along the ROW. In areas prone to compaction, such as areas with hydric soils, CECC will place timber mats along travel lanes to minimize rutting and soil compaction potential, as deemed necessary based on soil conditions during construction.

CECC will implement its SWPPP prior to clearing and construction. The SWPPP will utilize BMPs to ensure streams and waterways along the ROW are not affected by erosion or sedimentation and that flow is maintained at all times. There are no Section 10 navigable waters of the United States that will be crossed by the proposed route or any alternative route.

Following the completion of construction activities, disturbed areas (with the exception of previously forested areas) will quickly recover, either by reseeding, natural succession, or a combination of both. In either case, construction areas will be reclaimed with species of grasses, forbs, and shrubs that occur in adjacent habitats or are native to the region.

Through outreach, the local NRCS office determined the Project will have an indirect effect and will not prevent the land from being used in agriculture production and will not affect prime farmland or farmland of statewide importance. Therefore, the Project will not result in adverse impacts on prime farmland and farmland of statewide importance. Correspondence with the NRCS is provided in Appendix B.

Once operational, maintenance of the transmission line and vegetation within the ROW may be required. Maintenance is generally limited to small areas (e.g., less than 1 acre) and occur over short timeframes (less than 1 week in most instances), although full vegetation restoration may take several weeks. CECC will implement similar soil erosion, sediment controls, and restoration measures as described above; therefore, operation and maintenance activities, if required, will have short-term and minor impacts on soils.

Mitigation

CECC will implement its SWPPP to manage stormwater during construction and restoration of the Project. In areas prone to compaction, such as areas with hydric soils, CECC will place timber mats along travel lanes to minimize rutting and soil compaction potential, as deemed necessary based on soil conditions during construction. CECC will install ECDs such as silt fence or filter logs prior to commencing ground-disturbing activities and erosion control blankets where soils are exposed and/or seeding has occurred. All areas of ground disturbance will be rehabilitated once construction is complete. Rehabilitation will include using native species or nonpersistent annual species to revegetate work areas upon completion of construction. Successful revegetation is defined as a uniform 70 percent cover of perennial non-invasive species.

3.1.3 Geology

Affected Environment

The proposed transmission line is in the Ozark Plateau (Mountain) physiographic region in Arkansas which is characterized by steep valleys with narrow valley floors (Arkansas Geological Survey [AGS] 2021a). The Ozark Plateau region is further divided into three subregions with the proposed Project falling within the Springfield Plateau. The Springfield Plateau is less rugged than other areas of the Ozark Plateau and consists of gentle hill topography characterized by occasional steep drainages (AGS 2021a). The topography along the transmission line route has moderate relief with elevations ranging from 1,220 to 1,950 feet above sea level.

Underlying geology of the Project area consists of Mississippian age (358.9 to 323.2 million years ago) limestone and chert associated with the Boone Formation. The Boone Formation outcrops are part of the Springfield Plateau, which create some areas of steep and rugged terrain. Because much of the bedrock

in the Project area is carbonate, karst topography occurs along portions of the ROW. Karst is a distinctive geologic formation in which the landscape is shaped mainly by the dissolving action of water on carbonate bedrock. This geological process occurs over thousands of years and resulted in unusual surface and subsurface features ranging from sinkholes, losing streams, and springs to complex underground drainage systems and caves. In karst topography, creeks often connect the surface with the subsurface as they flow through these underground passageways, sometimes joining a larger stream and sometimes entering the groundwater. During biological field surveys, two sinking streams and several seep wetlands were found along the ROW.

According to the AGS (2021b), there have been no recordable earthquakes in Carroll and Madison counties, Arkansas. The nearest active tectonic feature is the New Madrid seismic zone, an active fault system that extends from Cairo, Illinois to Marked Tree, Arkansas. USGS seismic hazard maps show that the Project is in an area with medium-low seismic risk (8-16 percent of gravity) (USGS 2018). Related hazards such as soil liquefaction have a very low chance of occurrence (AGS 2021c).

Landslides refer to the gravity-induced downward and outward movement of slope-forming materials, and generally form on steep slopes or on soil materials that are susceptible to failure particularly in response to earthquakes or heavy precipitation. According to the USGS Landslide Inventory Map (2021), there are no historic landslides in the Project area.

Mineable rock in the Project area includes limestone and dolostone (AGS 2015). No active or abandoned quarries or mines are located within 0.5-mile of the Project (American Geosciences Institute [AGI] 2021). No major energy resources or oil and gas wells are known to occur within 0.5-mile of the Project (Arkansas Oil and Gas Commission 2021).

Environmental Consequence

Construction activities such as the erection of structures or the grading of temporary roads, construction areas, and staging areas will have no measurable impacts on geological features or mineral resources. Erection of the structures will require the excavation or boring of small quantities of near-surface materials (42-inches in diameter and 7 to 14 feet deep) but should have no measurable impacts on any geologic resources. Therefore, no significant effect on geologic resources will result from construction, operation, or maintenance of the transmission line.

Potential exists for sinkholes and other subsurface voids to occur within the Project area as well as potential for these to develop over time. The current design and siting of structures avoids sinkholes, and construction activities such as equipment travel and stringing of electric wires will avoid sinkholes. Ground disturbance associated with construction should not reach depths where impacts to subsurface voids will occur and should not cause voids to develop. Additionally, construction does not require excavation or grading to alter the topography as the proposed transmission line will follow natural topography.

Mitigation

Areas of sensitivity or concern, such as sinkholes, will be avoided during construction and marked with flagging, temporary fencing, or signs to ensure avoidance.

3.2 Floodplains

Affected Environment

Executive Order 11988 requires federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. RUS is responsible for complying with Executive Order 11988 when considering projects under its review. Executive Order 11988 outlines an eight-step decision-making process for reviewing projects that could impact floodplains. The eight-step decision-making process includes the following steps:

1. Determine whether the proposed action is located within the floodplain.

2. Notify the public at the earliest possible time of the Agency's intent to carry out an action in the floodplain and involve the affected and interested public in the decision-making process. This EA serves as RUS's notification to the public.

3. Identify and evaluate practicable alternatives to locating the proposed action in the floodplain including off-site and on-site alternatives, alternative configurations, other avoidance actions and the "no action" alternative, as appropriate.

4. Identify the potential direct, indirect, and cumulative impacts associated with the proposed action. Identify the floodplain's beneficial functions and values such as water quality improvement, water filtration, floodwater storage, fish and wildlife habitat, aesthetics, and biological productivity. Then analyze the impacts to the following factors: 1) Natural environment (topography, water sources, habitat areas, etc.), 2) Social concerns (aesthetics, historic and cultural values, land use patterns, etc.) 3) Economic and engineering aspects (costs of construction, transportation, access, ingress, egress, etc.), and 4) Legal considerations (permits, leases, deed restrictions, setbacks, etc.)

5. Mitigate adverse impacts. Mitigation can take the form of avoidance, minimization of floodplain impacts, or compensation for impacts, and can include all efforts to minimize the adverse impacts to floodplains identified under Step 4.

6. Re-evaluate the proposed action to determine if it is still practicable in light of the remaining exposure to flood hazards, extent to which the action will aggravate hazards and the potential to disrupt floodplain values. Alternatives preliminarily rejected at Step 3 should also be re-evaluated as to whether they are practicable in light of the information gained in Steps 4 and 5.

7. Prepare and provide the public with a finding and public explanation of the Agency's final decision that the floodplain impact is the only practicable alternative as specified in § 1970.261 (Public Notification Requirements) and that there is a significant need for the proposed action.

8. Implement proposed action with appropriate mitigation.

Federal Emergency Management Agency (FEMA) defines flood zones at varying levels based on flood risk and type of flooding. Special flood hazard areas are those that are subject to inundation by a 1-percent-annual chance, or a 100-year flood. FEMA also defines areas of minimal flood hazard that are within the 0.2-percent-annual chance, or a 500-year flood. Based on review of FEMA flood hazard maps (FEMA 2021), nine 100-year flood zones are crossed by the Project and three structures are proposed within 100-year flood zones, as discussed below. Maps presenting the location of flood zones are provided in Appendix E.

Environmental Consequence

As presented in Figure 3.2-1 below, one structure is proposed within the wide floodplain terrace along Osage Creek. Alternative route segments D and E (see Figure 3.13-3 for Route Options) also cross Osage Creek; however, the crossing distance and functions and value of the floodplain at the alternative crossing locations is similar to the preferred alternative. Therefore, we do not believe that an alternative is preferable to the current preferred route.

Figure 3.2-1. Structure location with the floodplain of Osage Creek.

As presented in Figure 3.2-2 below, one structure is proposed within the wide floodplain terrace along the Kings River. Alternative route segment H (see Figure 3.13-3 for Route Option) crosses Osage Creek about 0.25-mile north of the preferred crossing where the flood zone crossing distance is about 375 feet, which will allow structures to be placed outside the flood zone. However, the preferred route is sited along an existing electric distribution line across the Kings River and when compared to the alternative segment H, reduces tree clearing and visual impacts to landowners and to potential recreational users of Kings River. Additionally, the existing distribution line structure shows no visible evidence of scour or downstream affects to the flood zone. Therefore, we believe placement of the proposed structure will not impact flood zone function or value or cause adverse effects to downstream or adjacent property owners. We conclude the placement of the proposed structure within the Kings River floodplain is acceptable.

Figure 3.2-2. Structure location with the floodplain of the Kings River.

As presented in Figure 3.2-3 below, one structure is located on the top of a stream ravine and although the structure is mapped within a flood zone, it is likely placed outside the actual flood zone or at the upper elevation of the flood zone.

Figure 3.2-3. Structure location with the floodplain of War Eagle Creek.

Mitigation

The construction, operation, and maintenance of the transmission line will not have any adverse impacts on surface waters within or adjacent to the Project. All surface waters will be spanned and structures will be placed above the plane of ordinary high-water marks; therefore, typical water flow will not be affected. Temporary construction mat bridges and culverts will be utilized to cross smaller streams where equipment travel is required. Larger waterbodies such as War Eagle Creek, Kings River, Dry Fork Creek, and Osage Creek will not be crossed or spanned by temporary equipment bridges; equipment will access the ROW from existing access points on either side of these waterbodies. CECC has coordinated with the ADEQ regarding the use of temporary bridges and the ADEQ has confirmed that as designed, a Short Term Activity Authorization (STAA) is not required for temporary bridge use. Correspondence with the ADEQ is provided in Appendix B.

The three structures that are proposed within 100-year flood zones will be designed and constructed so as not to impede the flow of any waterway or create any hazard during flooding events. No modification to flood zone elevations or flood storage capacity will occur.

As previously stated, CECC will implement its SWPPP that will utilize BMPs to ensure streams and waterways along the ROW are not affected by erosion or sedimentation and that flow is maintained at all times. There are no Section 10 navigable waters of the United States that will be crossed by the proposed route or any alternative route.

The Kings River is designated by the ADEQ (2020b) as an extraordinary resource water and natural and scenic waterway. Structures on either side of the Kings River will be placed outside the rivers ordinary high-water mark; therefore, no direct impact to the river is anticipated. Clearing of trees adjacent to the river and the stringing of line across the river will be completed by low-weight equipment or by hand. Equipment use within the banks on the river is not anticipated; therefore, we do not believe Project activities will affect Kings River or affect its status as an extraordinary resource water and natural and scenic waterway.

3.3 Wetlands

Affected Environment

Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (U.S. Army Corps of Engineers [USACE] 1987). Wetlands serve a variety of functions including, but not limited to flood control, groundwater recharge, maintenance of biodiversity, wildlife habitat, recreational opportunities, and maintenance of water quality.

Wetland field surveys were conducted in May and October 2021 and April of 2022 to identify and document wetlands within the Project area. The wetland surveys were conducted using the on-site methodology set forth in the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the 2010 USACE Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (USACE 2012). Surveys have been completed for the entire ROW, including access roads. Table 3.3 summarizes the wetlands that occur within the ROW and along temporary access roads. Appendix F includes the Wetland and Waterbody Survey Report that was completed for the Project.

Table 3.3
Summary of Wetland Crossed by the Project (acres)

County/Facility	Emergent Wetland	Scrub-shrub Wetland	Forested Wetland
Carroll County			
Transmission Line ROW	0.90	>0.01	0.48
Access Roads	0.31	>0.01	-
Madison County			
Transmission Line ROW	0.14	-	-
Access Roads	-	-	-
Projects Total	1.36	0.02	0.48

A total of 17 wetlands will be crossed by the Project's ROW, including 15 palustrine emergent wetlands, 1 scrub-shrub wetland, and 1 forested wetland. One scrub-shrub wetland is adjacent to and one palustrine emergent wetland will be crossed by proposed access roads for the Project.

Environmental Consequence

Footing for one transmission line structure will be installed within an emergent wetland and will result in 0.05 acre of permanent wetland impact. Placement of the angled transmission line structure is based on the curved and sloped topographic setting of the area which prevented placement of the structure outside the wetland. A description of footings and structure installation procedures is provided in Section 2.1.5. No other permanent dredge or fill activities are proposed in wetlands. CECC will complete Project activities under the USACE Nationwide Permit (NWP) Program, specifically, under NWP 57 for electric utility line and telecommunications activities. CECC submitted a Pre-construction Notification to the USACE on September 15, 2022. The USACE authorized Project activities on November 3, 2022. The authorization letter from the USACE is provided in Appendix B.

Vegetation clearing and equipment travel will temporarily impact wetlands. Travel lanes will be established within the ROW to avoid wetlands to the extent practicable. Where wetland avoidance is not possible, CECC will place timber matting over the wetland to prevent rutting and soil compaction, as deemed necessary based on soil conditions during construction. Installation of ECDs and implementation of BMPs will prevent potential erosion and sedimentation impacts to wetlands that may be within or adjacent to the ROW.

Other than routine vegetation maintenance, no disturbance or impacts to wetlands will occur during normal operation of the transmission line.

Mitigation

CECC will complete Project activities under the USACE NWP 57 for electric utility line and telecommunications activities, along with NWP regional condition required in Arkansas. CECC received authorization from the USACE on November 3, 2022.

3.4 Waters Resources and Water Quality

3.4.1 Surface Waters

Affected Environment

The study area falls within the Beaver River Reservoir watershed. Interactions between water and regional geology result in a complex hydrologic environment characterized by extensive surface water sources and complicated surface and ground water interactions. The proposed transmission line falls within five Beaver River Reservoir sub-basins: Long Creek Watershed (Hydrologic Unit Code [HUC] 1101000113), Osage Creek (HUC 1101000110), Kings River (HUC 1101000111), Upper Kings River (HUC 1101000109), and War Eagle Creek (HUC 1101000106) (USEPA 2020). These watersheds ultimately flow into the White River. The White River is a major tributary of the Mississippi River and has a drainage basin of 27,765 square miles. The White River passes multiple reservoirs created by eight USACE dams. There are no Section 10 navigable waters of the United States that will be crossed by the proposed route or any alternative route.

Wetland and waterbody surveys were completed in May and October 2021 and April of 2022 along the proposed ROW and temporary access roads. Surveys have been completed for the entire ROW, including access roads.

A total of 125 streams and 11 ponds will be crossed by the Project's ROW, including 30 perennial, 34 intermittent, 59 ephemeral streams, and 2 stream where flow regime was unable to be determined. An additional 2 perennial, 1 intermittent, and 4 ephemeral streams are crossed by proposed access roads for the Project. None of the surface waters are designated as federal Wild and Scenic Rivers or Navigable Waters. The Kings River is designated by the ADEQ (2020a) as an extraordinary resource water and natural and scenic waterway.

Section 303(d) of the Clean Water Act (CWA) requires states to submit a list of water quality limited waterbodies. Arkansas's 303(d) list (ADEQ 2021) identifies War Eagle Creek as impaired for dissolved oxygen during the critical season.

Environmental Consequence

The construction, operation, and maintenance of the transmission line will not have any adverse impacts on surface waters within or adjacent to the Project. All surface waters will be spanned and structures will be placed above the plane of ordinary high-water marks; therefore, typical water flow will not be affected. Temporary construction mat bridges and culverts will be utilized to cross smaller streams where equipment travel is required. Larger streams such as War Eagle Creek, Kings River, Dry Fork Creek, and Osage Creek will not be crossed or spanned by temporary equipment bridges; equipment will access the ROW from existing access points on either side of these waterbodies. During stringing activities, wire will be pulled across these larger rivers using rope and light weight equipment working outside the river banks; therefore, no activities other than hand felling and removal of large trees within the transmission line easement will occur within the banks of the rivers. CECC's SWPPP will utilize BMPs to ensure streams and waterways along the ROW are not affected by erosion or sedimentation and that flow is maintained at all times.

Structures on either side of the Kings River will be placed outside the rivers ordinary high-water mark; therefore, no direct impact to the river is anticipated. Clearing of trees adjacent to the river and the stringing of line across the river will be completed by low-weight equipment or by hand. Equipment use within the banks on the river is not anticipated; therefore, we do not believe Project activities will affect Kings River or affect its status as an extraordinary resource water and natural and scenic waterway.

No disturbance or impacts to surface waters are anticipated during normal operation of the transmission line. Vegetation maintenance along stream banks will be managed to prevent streambank alteration and root systems will remain in place to stabilize stream banks.

Mitigation

CECC will complete Project activities under the USACE NWP 57 for electric utility line and telecommunications activities, along with NWP regional conditions required in Arkansas. CECC received authorization from the USACE on November 3, 2022.

To minimize impacts on surface waters and aquatic resources, the USFWS recommends that CECC implement its Streambank Stabilization Species Protection Measures (USFWS 2022b) and its Pipeline and

Linear Projects Species Protection Measures (USFWS 2022c). CECC will incorporate USFWS recommended mitigation measures into its construction plan. These measures are listed in Section 5.0.

3.4.2 Groundwater

Affected Environment

The Project area is contained within the Interior Highlands Aquifer System, one of three broad aquifer systems in Arkansas. The Interior Highlands Aquifer System encompasses four distinct aquifers: the Arkansas River Valley Alluvial, Ouchita Mountains, Springfield Plateau, and Ozark aquifers (Kresse et al. 2014). The Project is situated above the Ozark and Springfield Plateau aquifers. The hydrology of these aquifers is complex and controlled by the geology of the area; highly soluble limestone and dolostone. The geologic characteristics create numerous karst features such as caves, springs and sinkholes and result in frequent direct connections between surface and ground water as well as highly variable aquifer characteristics (Kresse et al. 2014).

The majority of the Project area falls within the Springfield Plateau aquifer. Groundwater from this aquifer is commonly used for small-scale water systems such as domestic and livestock use (Kresse et al. 2014). Since the majority of wells that access the Springfield Plateau aquifer are small, ground water use does not require state reporting thus, an exact amount of ground water use is unknown. Kresse et al. (2014) notes that over time, use has shifted from the aquifer to surface waters. Water quality of this aquifer is generally considered good, with naturally occurring components rarely exceeding federal drinking-water regulation (Kresse et al. 2014). That said, the previously mentioned connectivity between surface and ground water increases the chances for aquifer contamination. Agricultural activities are the most likely contaminate sources for aquifers in Carroll County; however septic systems are also cited as contaminate sources for the Springfield Plateau aquifer (Kresse et al. 2014).

According to USEPA Map of Sole Source Aquifer Locations and as presented in Figure 3.4, the nearest sole source aquifers is 190 miles southwest of the Project (USEPA 2022b).

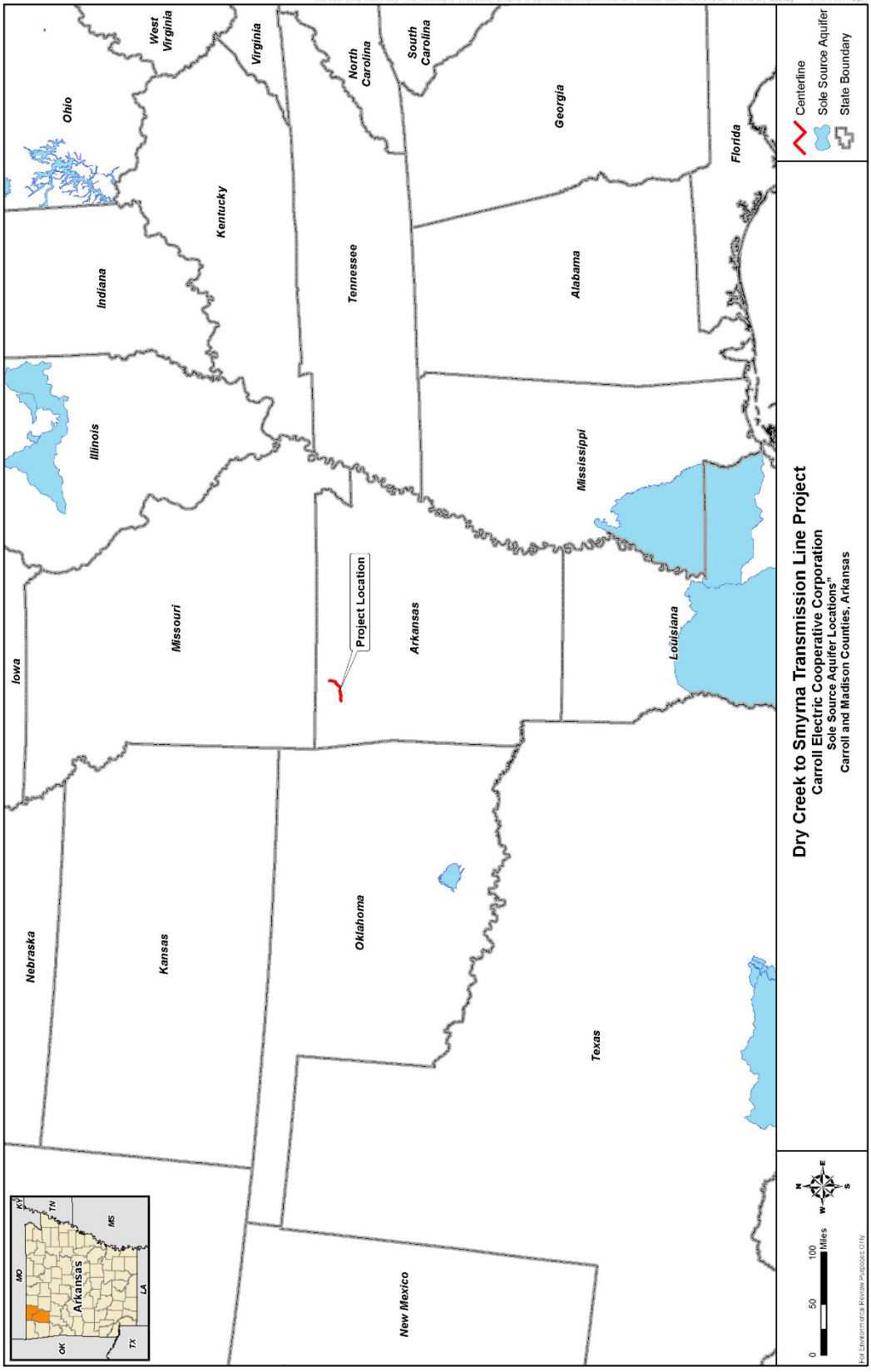
Environmental Consequence

Ground disturbance associated with structure installation will be limited to the upper 7 to 14 feet, which is above the water table of most surficial aquifers. Water wells will not be impacted by Project activities. Therefore, no direct impacts to groundwater or groundwater wells are anticipated.

Mitigation

Mitigation measures that will be implemented to protect resources are summarized in Section 5.0.

Figure 3.4 Sole Source Aquifer Locations



3.5 Coastal Resources

Affected Environment

Coastal areas and barrier systems provide diverse and unique habitats as well as protect inland areas from hurricanes, other storms, or storm surges. Much of the coastal zone continues to experience heavy pressure for residential, recreational, energy and industrial development, among many others, while simultaneously being prone to storm damage and flooding. To address the competing demands on coastal areas, Congress enacted two major laws for their protection and management. The Coastal Zone Management Act of 1972, as amended, applies to all lands on the boundary of any ocean or tributary thereof, and the Great Lakes. The Coastal Barrier Resources Act of 1982 established the John Chafee Coastal Barrier Resources System which consists of undeveloped coastal barrier lands along the Atlantic, Gulf, and Great Lakes coasts.

The state of Arkansas is not within the boundaries of a Coastal Zone or Coastal Barrier Resource Area; therefore, construction of the transmission line does not require review under the Coastal Zone Management Act or Coastal Barrier Resources Act.

Environmental Consequence

Not applicable.

Mitigation

Not applicable.

3.6 Biological Resources

3.6.1 Sensitive Species

Affected Environment

CECC and Merjent, Inc. (Merjent), CECC's environmental contractor for the Project, reviewed the USFWS' Information for Planning and Conservation website in May 2021 and December 2022 to generate a list of species and critical habitat that may be present in the Project area (Table 3.5). This review does not represent a comprehensive survey, but rather acknowledges the potential presence of federally listed species in the Project area. In June 2021, CECC and Merjent began direct consultation with the USFWS Arkansas Ecological Services Field Office. Email correspondence with the USFWS confirmed the list of species potentially present in the Project area. Agency correspondence between CECC, Merjent, and USFWS is provided in Appendix B. Consultations are further summarized in the environmental consequences section below.

During surveys in May and October 2021, Merjent reviewed the ROW for potential suitable habitat for the Missouri bladderpod. Suitable habitat for the Missouri bladderpod consists of open glades formed over dolomite and limestone bedrock in the Ozark Plateau. All the known sites in Arkansas contain treeless zones with very thin soil and exposed bedrock surrounded by open woodlands with varying degrees of cedar and other woody plant encroachment and have been partially invaded by Eastern Red Cedar (*Juniperus virginiana*). No suitable habitat for the Missouri bladderpod was found along the Project ROW.

Table 3.5
Federally Listed Species Potentially Present in the Project Area

Scientific Name	Common Name	Federal Status
Myotis septentrionalis	Northern long-eared bat	Threatened *
Myotis sodalis	Indiana bat	Endangered
Myotis grisescens	Gray bat	Endangered
Corynorhinus townsendii ingens	Ozark big-eared bat	Endangered
Charadrius melodus	Piping plover	Threatened
Laterallus jamaicensis	Eastern black rail	Threatened
Calidris canutus rufa	Rufa red knot	Threatened
Quadrula cylindrica	Rabbitsfoot	Threatened
Epioblasma triquetra	Snuffbox mussel	Endangered
Danaus plexippus	Monarch butterfly	Candidate
Physaria filiformis	Missouri bladderpod	Threatened

* The status of the Northern long-eared bat is proposed to change to federally endangered on January 30, 2023. Additional information regarding the status change can be found at: https://www.fws.gov/species-publication-action/endangered-and-threatened-wildlife-and-plants-endangered-species-39.

Environmental Consequence

On August 25, 2021, the USFWS issued a consistency letter regarding CECC's proposed determination of effect and potential Project effects on federally listed species (see Appendix B). The USFWS concurred that there is no critical habitat for federally listed species within the Project area; the Project would not affect the Eastern black rail, piping plover, and red knot; and the Project would not likely adversely affect the Missouri bladderpod, rabbitsfoot, and snuffbox; therefore, no further consultation regarding those species is required. The USFWS also concurred that the Project may affect the gray bat, Indiana bat, Northern long-eared bat, and Ozark big-eared bat. Because the Project complies with the final 4(d) rule, the USFWS stated that no further consultation regarding the Northern long-eared bat is required. The USFWS's concurrence was based on CECC's commitment to implement the USFWS's Species Protective Measures for Streambank Stabilization Projects and the Species Protective Measures for Pipeline and Linear Projects, which are discussed in Section 5.0. However, the USFWS has proposed a new rule that will take effect on January 30, 2023 that lists the Northern long-eared bat as a federally listed endangered species. CECC consulted with the USFWS in November 2022 to confirm that the Project may affect but would not likely adversely affect the Northern long-eared bat if the Project's protections measures are implemented. On November 21, 2022, the USFWS concurred the Project may affect, but would not likely adversely affect the Northern long-eared bat. Additionally, on January 12, 2023, the USFWS confirmed that the determination of may affect, but would not likely adversely affect is appropriate for the Northern long-eared bat after the species status changes from threatened to endangered. Correspondence with the USFWS is provided in Appendix B.

Technical assistance consultations with the USFWS continued for the gray bat, Indiana bat, and Ozark big-eared bat. CECC and Merjent discussed additional conservation measures to mitigate or avoid effects on these listed bat species. USFWS has stated the active season for bats in Project area is April 1 to September 30. CECC has committed to offseason clearing (November 15 to March 31) for the Project. Additionally, if clearing is necessary within 100 feet of cave openings, CECC will commit to condensed clearing schedule

within a 100-foot buffer of the cave opening and limit clearing activities between December 1 and February 15. Based on these measures, the USFWS has concurred on February 11, 2022 that Project activities may affect, but would not likely adversely affect gray bat, Indiana bat, and Ozark big-eared bat, and no further consultation with the USFWS on listed species is required. The USFWS is also considering a new rule that would list the tricolored bat as a federally listed endangered species. CECC consulted with the USFWS in November 2022 to confirm that the Project may affect but would not likely adversely affect the tricolored bat if the status of the species changes during construction and restoration of the Project and if the Project's protections measures are implemented. On November 21, 2022, the USFWS concurred the Project may affect, but would not likely adversely affect the tricolored bat, and a no jeopardy determination was made for the species. Correspondence with the USFWS is provided in Appendix B.

The USFWS has stated the nesting season for migratory songbirds in the Project area is May 15 to July 31. As indicated, CECC will clear trees outside the migratory songbird nesting season.

CECC and Merjent consulted the USFWS regarding bald eagles. The USFWS is not aware of any known eagle nests in the Project area and confirmed the nesting season for eagles is generally between December 15 to June 30. Merjent also reviewed the Natural Heritage Database and did not identify any known eagle nests in the Project area. If an active bald eagle nest is identified within 660 feet of Project activities, CECC will implement the Bald Eagle Monitoring Guidelines (USFWS 2007).

As stated in RD Instruction 1970-N Guidance, the biological resources discussion in NEPA documents must address the effects of the proposed action on biological resources, including federally listed or proposed threatened and endangered species and critical habitat as well as other species of concern, such as state-listed species, species on federally-managed land subject to habitat management plans or other conservation efforts, or species of importance found on Tribal lands. Note that while these species of concern may not be protected under the Endangered Species Act (ESA), they may still be subject to mitigation measures in approved management or recovery plans and any impacts to them should be disclosed under NEPA.

No federally managed lands are crossed by the Project and Native American Tribes have not identified any species of concern. Of the federally listed species identified by the USFWS, none are subject to habitat management, conservation plans, or recovery plans that identify other species of concern as essential to a federally listed species.

Mitigation

CECC will incorporate its Nationwide Standard Conservation Measures into its construction plan. CECC will implement the USFWS's conservations measures for linear projects which are summarized in Section 5.0. CECC has committed to offseason clearing (November 15 to March 31) for the Project. Additionally, if clearing is necessary within 100 feet of cave openings, CECC will commit to condensed clearing schedule within a 100-foot buffer of the cave opening and limit clearing activities between December 1 and February 15.

3.6.2 Migratory Birds

Affected Environment

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA), which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued

pursuant to federal regulations. Executive Order 13186 directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse impacts on migratory birds through enhanced collaboration with the USFWS. Executive Order 13186 states that emphasis should be placed on species of concern, priority habitats, and key risk factors and that focus should be given to addressing population-level impacts.

In accordance with Executive Order 13186, CECC has considered Birds of Conservation Concern of the Central Hardwoods Region and Important Bird Areas in the Project area. The species listed as Birds of Conservation Concern, released most-recently in 2021, identify bird species that represent the USFWS' highest conservation priorities (USFWS 2021). Important Bird Areas are discrete sites that provide essential habitat for one or more bird species and include habitat for breeding, wintering, and/or migrating birds (National Audubon Society 2018). No Important Bird Areas are located within 15 miles of the Project.

Environmental Consequence

The potential impacts of the Project on migratory birds will include the temporary and permanent loss and conversion of habitat associated with vegetation removal. Construction will also reduce the amount of habitat available for resources such as foraging and predator protection for migratory birds and will temporarily displace birds into adjacent habitats, which could increase the competition for food and other resources. This in turn could increase stress, susceptibility to predation, and negatively impact reproductive success. The loss of forest will present a permanent impact for migratory birds that depend on forested land.

Mitigation

CECC will complete construction tree clearing outside the migratory bird nesting season. CECC will incorporate the USFWS's Nationwide Standard Conservation Measures into its construction plan as stated in Section 5.0.

3.6.3 Bald and Golden Eagle

Affected Environment

Bald and golden eagles are protected by both the MBTA and the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits the take of bald or golden eagle adults, juveniles, or chicks including their parts, nests, or eggs without a permit; "take" is defined by the BGEPA as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. The BGEPA also addresses impacts resulting from human-induced alterations occurring around previously used nesting sites. Construction activities are prohibited within a certain distance of an active bald eagle nest during the nesting season (i.e., December 15 to June 30 in the Project area); the disturbance buffer may be 330 feet or 660 feet, depending on the activity and the presence of similar activities in the vicinity. Through discussions with the USFWS, golden eagles are unlikely to occur in the Project area and no known bald eagle nests are known to occur in the Project area.

Environmental Consequence

The potential impacts of the Project on migratory birds will include the temporary and permanent loss and conversion of habitat associated with vegetation removal. Construction will also reduce the amount

of habitat available for resources such as foraging and predator protection for migratory birds and will temporarily displace birds into adjacent habitats, which could increase the competition for food and other resources. This in turn could increase stress, susceptibility to predation, and negatively impact reproductive success. The loss of forest will present a permanent impact for migratory birds that depend on forested land.

Mitigation

CECC will complete construction tree clearing outside the migratory bird nesting season. CECC will incorporate the USFWS's Nationwide Standard Conservation Measures into its construction plan.

3.6.4 Vegetation and Invasive Species

Affected Environment

The Project area is within the Ozark Highlands Level Ill ecoregion, with a small portion falling in the Boston Mountain Level Ill ecoregion (Woods et al. 2004). These ecoregions generally correspond with the Ozark Plateau physiographic region. The native vegetation of the Ozark Highlands ecoregion is characterized by upland hardwood forests and glades. Glades occur throughout the Ozark Mountains and are characterized as open areas, often with exposed bedrock, with grasses or herbaceous plants present in areas with soil. A general habitat survey completed during the wetland and waterbody surveys in May and October 2021 did not identify any natural glades within the Project's ROW.

Upland forests in the Ozark Highlands are predominantly oak-hickory but sycamore elm-soft maple is commonly found on creek and river bottoms. North-facing slopes are covered in black, red, and white oak with an understory of flowering dogwood, serviceberry, and Carolina buckthorn. South-facing slopes are generally post oak, blackjack oak, and black hickory. Understory vegetation is adapted to deciduous forests and flowers early in the spring to take advantage of sun before tree leaf out (Arkansas Natural Heritage Commission 2008). Forest floor plants include ephemeral plants such as trillium, bloodroot, and trout lily.

The vast majority of the Project area has been altered by human use and particularly agriculture (see Section 3.1). Land use conversion for agriculture replaced the natural mosaic of upland forests and glades with a patchwork of agricultural and forested parcels. Plant species within remaining forested parcels are largely similar to natural upland forests in the Ozarks but fire suppression and introduced species have altered the overall ecological composition of these communities. Changes in the natural fire regime have resulted in dense forests where groundcover has been replaced by woody shrubs and small trees (Arkansas Natural Heritage Commission 2008).

Environmental Consequence

Vegetation impacts will result from tree and shrub clearing and mowing of herbaceous vegetation along the ROW. Clearing and mowing activities will be required to facilitate structure construction, equipment travel along the ROW, and line stringing. As discussed in Section 3.1, the Project area is a patchwork of forested and agricultural land. In many instances the transmission line parallels the edges of forested areas and will not bisect these areas. In other areas, the transmission line will extend through forested areas already largely fragmented by fields, roads, and farms. In these areas the acres of forest within the ROW are small and clearing the ROW is unlikely to considerably alter existing conditions or significantly

increase habitat fragmentation. About 210 acres of forested land will be cleared to construct and operate the transmission line.

Mitigation

CECC will implement the measures in its Vegetation Management Plan to facilitate revegetation of the ROW and maintain vegetation during operation of the transmission line.

3.6.5 Wildlife Resources

Affected Environment

Mammals, birds, amphibians, and reptiles common to the Ozark Highlands vegetation communities continue to occupy the Project area, although in general, some are rarer than others (black bear and bobcat). The rural nature of the area and patchwork of forested lands still provide habitat for many of these animals and in some cases agricultural clearing has opened lands for use by animals such as turkey and deer.

Wildlife occupying the Project area is directly related to available habitat types. Forests of the Ozark Highland ecoregion are home to numerous mammals, avian, amphibian, reptile, and aquatic species. This wildlife is likely to use more natural vegetation areas like forests, as well as those are heavily altered for human use, such as fields and pastures. Common species of mammals include white-tailed deer, coyote, gray fox, bobcat, eastern spotted and striped skunk, Virginia opossum, and northern raccoon, to name a few. In addition to these medium to large-sized mammals, a number of small rodents such as squirrels, gophers, moles, woodrats, and mice are common within this ecoregion. Common avian species include red-tailed hawk, turkey vulture, pine warbler, the downy and red-cockaded woodpeckers, northern cardinals, wild turkey, and American crow. A number of songbirds and other migrants reside in the region seasonally (either during the winter or summer months).

Numerous species of snakes, lizards, frogs, toads, turtles, and salamanders are native to the Ozark Highlands. Snakes include venomous species such as the copperhead and relative the cottonmouth, and non-venomous water snakes and garter snakes. Turtles are common in both natural and manmade water bodies and include both softshell and hardshell species such as the western spiney softshell, red-eared slider, and snapping turtle.

Environmental Consequence

Wildlife use both forested and open lands in the Project area. Limited impacts to wildlife are expected from the construction, operation, and maintenance of the transmission line. The anticipated timeframe for tree clearing and construction is to occur during the winter, a time that most wildlife in the area is inactive. It is expected that most wildlife, such as birds and larger mammals, will temporarily relocate to adjacent available habitat as construction activities commence. However, displacement impacts will be minor and short term as wildlife will be expected to return and colonize the ROW after it is restored. Therefore, the overall populations of wildlife will not be noticeably affected by the Project.

Future ROW maintenance activities may include periodic mowing and/or herbicide applications to maintain the herbaceous vegetation layer within the ROW. Additionally, larger trees outside the ROW may require removal to maintain safe operation and service of the transmission facility. These activities will be short-term, lasting only a few days every few years, and will mostly be accomplished by hand or

the use of low weight vehicles. CECC will minimize impacts on vegetation and wildlife by implementing its Vegetation Management Plan and by implementing the measures outlined in Section 3.6 for sensitive species. Therefore, maintenance of the transmission line and ROW will have short-term and minor impacts on vegetation and wildlife.

Mitigation

CECC will implement the measures in its Vegetation Management Plan to facilitate revegetation of the ROW and maintain vegetation during operation of the transmission line.

3.7 Cultural and Historic Resources

Affected Environment

Section 106 of the NHPA, as amended, requires for any federal, federally assisted, or federally licensed undertaking the federal agency consider the effect of that undertaking on any district, site, building, structure, or object that is listed on or eligible for listing on the National Register of Historic Places (NRHP) before the expenditure of any federal funds or the issuance of any federal license. This process of considering an undertaking's effect on historic properties, i.e., the "Section 106 Review," includes a cultural resource inventory.

Merjent conducted the literature search using the Automated Management of Archeological Site Data in Arkansas (AMASDA) online database in April 2021. The AMASDA literature search focused on previously conducted archaeological surveys and previously identified archaeological sites within 1-mile of the transmission line. In addition, Merjent reviewed archival resources including General Land Office (GLO) maps and historical aerial imagery to identify potential cultural features within 1-mile of the transmission line. There are 14 previous surveys within the 1-mile review area. Previous surveys were completed on behalf of highway projects, utility improvements, and two private developments. Three of the previous surveys intersect the transmission line easement.

From May 3 to June 3, 2021, Merjent completed a Phase I archaeological surveys of CECC's proposed 100-foot-wide transmission line easement, which is defined as the Project's archaeological Area of Potential Effect (APE). During the Phase I survey, Merjent archaeologists documented 23 archaeological sites that are either within the APE or a portion of the site intersects the APE. Portions of several sites extend outside the Project's APE and were not evaluated. Of the 23 sites that are within or intersect the APE, Merjent recommended 15 sites as ineligible or recommend the portion of the sites evaluated within the APE will not contribute to the site's overall NRHP eligibility, and no additional work was recommended. Phase II eligibility testing was recommended for the remaining eight sites are within or intersect the Project APE. Results of the Phase I identification survey along with Merjent's recommendations were submitted to the Arkansas Historic Preservation Program (AHPP) on October 27, 2021. The AHPP provided concurrence with Merjent's recommendations on October 28, 2021 (see Appendix B).

From October 12 to October 29, 2021, Merjent conducted additional Phase I identification surveys for the Project. The survey area included 38 access roads encompassing 19.97 acres and 4 parcels totaling 6.98 acres where survey access within the archaeological APE was previously not granted. During the survey, Merjent archaeologists documented two isolates and no new archaeological sites. Merjent recommended no additional work for the 26.95 acres. The AHPP provided concurrence with Merjent's recommendations on January 31, 2022 (see Appendix B).

Additionally, between October 12 to October 29, 2021, Merjent conducted Phase II eligibility testing of the eight sites that were recommended for further evaluation. Of the eight sites, six sites are recommended as undetermined for inclusion in the NRHP, and the portions of these sites that fall within the Project APE require no additional work. Two sites are recommended as eligible for the NRHP under Criterion D. Potential impacts to these sites are discussed below. The AHPP provided concurrence with Merjent's recommendations on August 23, 2022 (see Appendix B).

Merjent completed a historic architectural structure evaluation for the Project. The evaluation considered potential visual effects to structures that occur within 0.5-mile of the transmission line, which was defined as the Project's architectural APE. Merjent's evaluation utilized data obtained from the literature review; the NRHP; the Automated Management of Archeological Site Data in Arkansas online database; GLO maps; USGS topographic maps from 1901, 1904, 1968, 1972, and 1973; Google Earth Street View imagery, and historical aerial imagery to identify potential historic structures within the architectural APE. Using these resources, 230 intact structures occur within the APE that are more than 50 years of age.

Environmental Consequence

On August 23, 2022, the AHPP concurred that if the two potentially eligible archaeological sites are avoided, there will be no adverse effect to historic properties as a result of the undertaking. The two potentially eligible sites will not be affected by Project activities. CECC has sited transmission line structures outside the two sites and will avoid ground disturbing activities within the sites.

Regarding architectural structures, three structures were assessed during the Phase I and Phase II surveys of the Project and are recommended not eligible for inclusion on the NRHP. 59 additional structures were evaluated using available photography from Google Earth Street View. The remaining structures were not evaluated as they occur on private property with no access and photography was not available. The evaluation concluded that given the current state of disrepair or the lack of design and materials integrity, none of the structures exhibited characteristics or integrity that will make the structure/property eligible for inclusion on the NRHP. Merjent recommended that no further architectural evaluation is required. Merjent filed the report with AHPP on September 27, 2022. The AHPP provided concurrence with Merjent's evaluation and recommendations on October 27, 2022 (see Appendix B). The historic Alabam school, which is identified in the NEPAssist database search provided in Appendix C, was evaluated as part of the architectural evaluation.

Based on the archaeological and historic architectural studies and consultation with the AHPP that has been completed, we conclude the undertaking will not result in adverse effects to historic properties.

Mitigation

If the Project design changes and either of the two potentially eligible sites cannot be avoided, further consultation with the AHPP and RUS will be required. CECC will incorporate the RUS Historic (Inadvertent Discovery) Mitigation during the Project. 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, CECC will implement the mitigation measures 29 through 35 in Section 5.0.

3.8 Aesthetics and Visual Resources

Affected Environment

As described in Section 3.1, the proposed transmission line extents through a rural area predominantly used for cattle pasture and hay production. About 54 percent of the route is forest land and 46 percent is pasture, hayfield, or open space. The landscape ranges from nearly flat pasture and open land along rivers and in valleys to moderately rolling hills and ravines that are predominately forested. No formally classified lands will be affected by the Project. However, the Kings River is designated by as an extraordinary resource water and natural and scenic waterway.

Environmental Consequence

Visual impacts will result from new transmission line and new or expanded transmission line ROW. The degree of these impacts depends upon the extent of corridor sharing, the degree of shielding by terrain and vegetation, and the amount of existing human modification to the landscape. In pasture and open land, the transmission line structures will likely represent the tallest features of the landscape. In forested areas where topography is more pronounced the visibility of poles and conductors will be more limited; however, new or expanded ROW through forested areas, for example, will have additional impact on visual and aesthetic quality.

The greatest individual visual impact will be to people living very close to the transmission line. Due to the rural setting, no occupied residences are within 100-feet of the proposed transmission line. The extent and predominance of forest, riparian area, wooded draws will minimize the visual impact on residents of the Project area.

The primary public use areas within 1-mile of the Project include the Upper Smyrna Church, the Alabam Cemetery, and the Kings River. The Upper Smyrna Church is located on the southwest terminus of the Project. The approximate 3-acre Smyrna Transmission-Distribution Substation is located 150 feet from the church on the north side of County Road 8620. An H-frame transmission line of similar height currently connects to the substation and a single pole distribution line is present along County Road 8620. The proposed transmission line will be constructed adjacent to the existing H-frame transmission line where visible from the church. Based on the existing landscape and viewshed, we do not believe construction or operation of the transmission line will alter the viewshed or landscape near the Upper Smyrna Church.

The Alabam Cemetery is located on the west side of Highway 127 approximately 0.25-mile north of Highway 412 in Madison County. The transmission line will be installed to the north of the cemetery and the 100-foot-wide transmission line easement will intersect a portion of the cemetery. The easement will be cleared of trees to allow safe operation of the transmission line. The currently proposed location of three transmission line structures may be visible from the cemetery. Transmission line structure 194 will be north of the cemetery; a small row of trees between 35 and 40 feet in height are present between the cemetery and the structure. Transmission line structure 193 is northeast of the cemetery; a wooded draw will partially obstruct the line-of-sight to the structure. Transmission line structure 195 is west of the cemetery; trees along Madison Road 1455 and a wooded draw will obstruct or partially obstruct the line-of-sight to the structure. Transmission line structure 194 will be constructed approximately 125 feet north of the cemetery and will represent the greatest change in viewshed. However, the presence of trees between the cemetery and the transmission line structure will reduce visual impacts. The other transmission line structures will be visible from the cemetery but obstructed by the existing treeline.

Based on the existing landscape and the wooded nature of the landscape, we do not believe the Project will result in an adverse visual impact on the Alabam Cemetery.

The preferred route of the transmission line is sited along an existing electric distribution line across the Kings River and when compared to the alternative routes, reduces tree clearing and visual impacts to landowners and to potential recreational users of Kings River. Although the river may be used for fishing, the location of the preferred route in relation to local access points to the rivers will not likely affect recreational fishing opportunities.

Mitigation

CECC has selected a route that maximizes ROW sharing with existing transmission lines, avoids formerly classified lands and public use areas where feasible, and has been placed away from residences to the extent practicable.

3.9 Air Quality

Affected Environment

This Project is in Carroll and Madison counties, Arkansas. Ambient air quality is protected by federal, state, and local regulations. The USEPA has established National Ambient Air Quality Standards (NAAQS) for several criteria pollutants. These standards were implemented in order to protect human health, including health of defined sensitive populations, such as asthmatics, children, and the elderly. NAAQS have been established for nine criteria pollutants. Carroll and Madison counties are classified as attainment, meaning the area is in compliance with federal clean air standards. Carroll and Madison counties are designated as attainment for criteria pollutants carbon monoxide, ozone, particulate matter, nitrogen dioxide, and lead and as attainment/unclassified for sulfur dioxide (USEPA 2022c). A figure from NEPAssist depicting the nearest non-attainment area for criteria pollutants is provided in Appendix C.

Environmental Consequence

Air emissions from the construction of the Project will occur due to 1) vehicular emissions from increased traffic from the construction work force and construction deliveries, 2) internal combustion engine emissions from construction equipment, and 3) fugitive dust (particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)) emissions from site preparation and equipment travel. Emissions from construction activities can be difficult to quantify, as they are dependent on the number and type of construction vehicles in operation at any given point during construction, the number of construction workers driving to and from the site, and type of construction activities occurring, and soil conditions related to dust potential.

Generally, air emissions from construction are low and temporary in nature, fall off rapidly with distance from the construction site, and will not result in long-term impacts. No stationary emissions units (e.g., emergency generators) are being constructed as part of this Project, and none of the facilities will generate any air emissions. No NAAQS permitting analysis or permitting will be required for Project operation. Therefore, negligible impacts to air quality are expected from Project operation.

Mitigation

Air emissions from construction activities are expected to be the main effects to air quality from the Project. These effects will be largely within the Project construction areas and be minimal outside of the Project site and ROW boundaries. Air emissions from construction activities will be temporary in nature. Emissions will be from fugitive sources (dust from soil disturbance), fuel combustion from construction equipment, and fuel combustion from increased vehicular traffic. Construction equipment emissions will be controlled by use of properly maintained equipment. Vehicular emissions will be controlled by minimizing the time spent idling. Fugitive dust control mitigation measures will include, but are not limited to, the following:

- Applications of water;
- Watering of roadways after completion of grading;
- Reduction in speed on unpaved roadways;
- Use of sweepers or water trucks to remove mud at points of public street access; and
- Stabilization of dirt storage piles by seeding and mulching, tarps, or barrier fencing.

3.10 Socioeconomics and Environmental Justice

Affected Environment

This section discusses social and economic characteristics such as population, demographics, employment, and economic trends within Carroll and Madison counties, Arkansas. Also included, when relevant, are data relating to the State of Arkansas and the United States, to provide context when compared to each county. All information in this section was obtained from the U.S. Census Bureau unless cited differently.

As of 2019, Carroll and Madison counties are home to 27,965 and 16,521 people, respectively. Towns nearest the proposed Project include Green Forest and Huntsville, Arkansas. Green Forest is the largest with a population of approximately 2,972. Huntsville has a population of 2,879. The greatest period of growth in the area occurred between 1970 and 1980 when population growth was approximately 40 percent. A 3.4 and 5.4 percent growth occurred between 2010 and 2019 in Carroll and Madison counties, respectively.

The average household size in Carroll County is 2.49 people; it is slightly higher in Green Forest averaging 2.9 people. There are 11,139 households in Carroll County, of which 75.7 percent are owner-occupied units. The median value of homes in Carroll County is $136,900. The median home value in Green Forest is $82,300. The race and ethnic diversity of Carroll County is largely homogeneous with over 94.1 percent of the population white.

The average household size in Madison County is 2.57 people; it is similar in Huntsville, averaging 2.83 people. There are 6,279 households in Madison County, of which 66.8 percent are owner-occupied units. The median value of homes in Madison County is $186,100 compared to the national medium price of $217,500. The median home value in Huntsville is $104,300. The race and ethnic diversity of Madison County was largely homogeneous with over 95.6 percent of the population white.

As of 2019, the median family income in Carroll County was $46,110, which is reflected in the median income of Green Forest - $42,019 a year. In the county in 2019, approximately 53.2 percent of individuals over the age of 16 are employed. The largest industries in the county, in order of significance, include manufacturing, educational and health care services, retail trade, arts-entertainment-food services, and agriculture-forestry-mining.

As of 2019, the median family income in Madison County was $41,682 and the median income of Huntsville was $34,167 a year. In the county in 2019, approximately 51.5 percent of individuals over the age of 16 are employed, compared to 55.2 percent in the state of Arkansas. The largest industries in the county, in order of significance, include educational and health care services, manufacturing, retail trade, construction, and agriculture-forestry-mining.

Agriculture, and particularly livestock raising and processing, are major contributors to Carroll and Madison counties economy, and are known for poultry farming and processing and many specific jobs associated with these work activities are wrapped into manufacturing (e.g., food processing workers, production workers, inspectors, etc.). Carroll and Madison counties raise over 40 and 47 million broilers or meat-type chickens a year, respectively (USDA 2017). The market value of livestock and poultry sales is $360,208,000 and $273,286,000 of the total value of agricultural products sold in Carroll and Madison counties, (USDA 2017). Crop sales account for an additional $3,409,000 and $6,055,000 in Carroll and Madison counties, respectively (USDA 2017).

Affected Environment – Environmental Justice

According to the Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations Executive Order 12898, federal agencies must take 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. 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. If the percentage of minority residents of a county population exceeds the state level by more than 10 percent, it is considered to be “meaningfully greater” and an environmental justice community for the purposes of this analysis. Low-income is defined as a household income less than or equal to twice the federal poverty level. If the poverty rate for the population of the area county exceeds the state poverty rate by more than 10 percent, it is considered an area of environmental justice concern for the purposes of this analysis.

Environmental justice issues are identified by first determining whether minority or low-income populations are present. If so, then disproportionate effects on these populations would be considered. EJScreen 2.1 was used as an initial step to gather information regarding minority and/or low-income populations. USEPA recommends that screening tools such as EJScreen 2.1 be used for a “screening-level” look and a useful first step in understanding or highlighting locations that may require further review. As indicated by EJScreen 2.1 using a 1-mile buffer around the proposed transmission line, about 14 percent of the Project area population identifies as a minority population compared to the state average of 28 percent. Additionally, 39 percent of Carroll County and 42 percent of Madison County are considered low-income compared to a state average of 39 percent. Considering the parameters above, the Project will not affect environmental justice communities. The results of the EJScreen 2.1 database review are provided in Appendix G.

Environmental Consequence

Construction and operation of the transmission line will not adversely impact the socioeconomic conditions of Carroll and Madison counties. Overall, construction and operation of the line is anticipated to have beneficial impacts by providing a short-term increase in local spending and long-term job security for CECC employees who conduct maintenance and operate its transmission lines. Additionally, the transmission line will benefit local residents by providing reliable energy to homes and businesses. Construction of the transmission line will mostly be completed by non-county residents who travel to the area as work requires and therefore, will not alter the overall population, demographics, or economy in a significant way. Construction by non-local individuals may result in a minor local economy benefits from purchases of local services and lodging, but these benefits will not last beyond the Project's construction phase. Maintenance of the line will be completed by existing CECC employees.

Mitigation

All impacts are expected to be insignificant, therefore no mitigation measures have been proposed for socioeconomic conditions.

3.11 Miscellaneous Issues

3.11.1 Noise

Affected Environment

Noise is defined as any loud, discordant, or disagreeable sound or sounds. More commonly, in an environmental context, noise is defined simply as unwanted sound. Certain activities inherently produce sound levels or sound characteristics that have the potential to create noise.

The proposed transmission line will be located in rural areas of Carroll and Madison counties, Arkansas that cross over lands that are primarily pasture and forest areas (see Section 3.1). The primary ambient noise sources along the proposed transmission line are vehicular traffic on nearby roads, sounds from hay production and farming activities, insect noise (during some seasons), and rustling from wind in trees and nearby grasses.

Environmental Consequence

Noise will be generated during construction of the aboveground facilities for the Project. Noise levels will be highest in the immediate vicinity of construction activities and will diminish with distance from the work area. The actual noise levels generated by construction will vary on a daily and hourly basis, depending on the activity that is occurring, and the types and number of pieces of equipment that are operating. Most activities will not occur at the same time and are expected to occur during the daytime when the nearby residential receptors are less sensitive to noise. Any excessive construction noise should be of short duration and have minimal adverse long-term effects on residences near the construction activities.

Operational sounds from the proposed transmission line could occur during certain weather conditions. During these conditions, corona (electric partial discharge) can create a hissing or humming sound from the transmission line that is audible at varying distances. However, this is a temporary sound and is

typically masked by the inclement weather that creates conditions for corona to occur. Corona noise is generally low and requires close proximity to the transmission facilities to be audible.

Mitigation

No numerical noise limits were identified during the regulatory review of federal, state, and county ordinances; therefore, no operational mitigation options are proposed for the Project. In order to reduce the impact of construction noise on nearby residences, the majority of construction activities will occur during the day, when people are less sensitive to noise.

3.11.2 Transportation

Affected Environment

The Project area contains a network of paved and graveled public roads, along with a larger network of private two-track roads used for farming practices. State roadway crossings include Highway 23, Highway 127, Highway 21, Highway 103 S. No railroads will be crossed by the transmission line.

No Federal Aviation Administration (FAA) registered airstrips are within 10,000 feet of the proposed transmission line (FAA 2021). One private sod airstrip is within 5,000 feet of the transmission Line. The closest segment of the transmission line is 3,015 feet from the end of the airstrip. Along the parallel glidepath, the transmission line is 3,835 feet from the end of the airstrip. The edge of the airstrip is 1,301 feet above mean sea level (amsl). The proposed transmission line structures are typically 80 feet in height. The elevation of the top of the highest proposed structure in the glide path of the private airstrip is 1,522 amsl and equates to a 1:17.4 slope. Along the parallel glide path, the slope from the top of the nearest structure is 1:19.8. Therefore, the height of the proposed transmission line is within safe flight parameters for a private sod airstrip. We note that the owner of the private airstrip has executed an easement with CECC for the proposed transmission line.

Environmental Consequence

During the construction of the proposed Project, there will be short-term impacts on the transportation network. Delivery of equipment and material and general construction traffic will increase wear and tear on area roads. There will not be any construction of new roadways to access the transmission line because existing roadways and private roads will be used. The potential short-term and direct traffic impacts will include increased traffic volume and temporary lane or road closures when the line is being constructed across a roadway. Roadway closures will be planned well in advance and timed during off-peak travel times to minimize adverse effects. In addition to closures, increased travel time will occur from the movement of construction equipment and materials.

Long-term impacts on roadways in the Project Area are not anticipated. All crossings of roadways will comply with NESC clearance requirements. CECC will coordinate with agencies and obtain all necessary permits for road crossings. Once in operation, there will be periodic maintenance of the transmission line and supporting facilities; however, such activities are not anticipated to adversely affect roadway traffic volumes or patterns, and no long-term impacts to roadways and traffic are anticipated.

Mitigation

As construction and operation of the proposed Project will have only temporary impacts on transportation, no mitigation measures are planned. CECC will apply and follow any highway ROW disturbance and construction signage permits necessary at the time of construction. Any damage to existing roads or road ROW due to construction traffic will be repaired once construction is complete.

3.12 Human Health and Safety

3.12.1 Electromagnetic Fields and Interference

Affected Environment

Electric and magnetic fields (EMF) are a type of energy associated with low frequency, non-ionizing radiation that in this case is coming from a man-made source. Non-ionizing radiation has just enough energy to vibrate atoms in a molecule but not enough to remove electrons from an atom. The electric and magnetic radiation (EMR) waves emitted from powerlines is a much lower frequency than those emitted from microwaves, radio waves, or gamma rays. EMR associated with power lines is low frequency nonionizing radiation. Electrical fields are produced by the electrical current through wires and electrical devices. The strength of the EMF is proportional to the amount of current passing through the power line, the field decreases in strength as you move away (USEPA 2022d).

Environmental Consequence

There are no current studies confirming that high amounts of EMR is associated with health risks (USEPA 2022d). It is assumed there is no health risk from working within electric and magnetic fields.

Mitigation

The proposed transmission line will be designed and engineered to adhere to the current NESC standards and clearances, the RUS design manual, as well as all relevant state and federal statutes. The proposed transmission line will include proper bonding and grounding techniques. Because no inhabited structures are within 100 feet of the transmission line, interference impacts will be minimal and insignificant.

3.12.2 Environmental Risk Management

Affected Environment

It is important to evaluate whether the proposal might result in an adverse effect on public health and safety (this is an indicator of significance per 40 Code of Federal Regulations [CFR] Part 1508.27). This section addresses potential impacts from other media or resources not previously described or disclosed elsewhere in the EA.

Environmental Consequence

There are a number of risks to human health and safety possible for construction personnel on Project construction through the operation of heavy equipment, the use of tools during construction, and working in an active construction site. Additionally, hazardous substances or wastes may be released, generated, or required for construction and operation in the Project Area. However, because no substations or

transformers are proposed, hazardous materials will be limited to fuels and lubricants used for construction equipment.

Mitigation

Mitigation measures include compliance with all applicable federal and state occupational safety and health standards, NESC regulations, Occupational Health and Safety Administration guidelines, and utility design and safety standards. Additionally, construction contractors are required to adopt CECC's health and safety standards to address public and worker safety during the construction and operation of the Project. All construction sites will be managed to reduce risks to the public and workers in the area. The general public will not be allowed in any active construction sites.

3.13 Corridor Analysis

3.13.1 Route Evaluation

CECC identified the need for a new transmission line in this region to meet the needs described in Section 1.2. CECC retained the services of consulting engineer AMA to assist with and complete a routing and macro-corridor study to identify the best location for a new 161-kV transmission line from the Dry Creek Switching Station to the Smyrna Transmission-Distribution Substation in Carroll and Madison counties, Arkansas, respectively. AMA and CECC utilized a route identification process that incorporates information gathered from public sources, public feedback, and dialog with landowners who could potentially be directly affected. The information and data were compiled and managed in a GIS spatial database.

3.13.2 GIS Based Routing Study

AMA completed a routing study following guidance provided by the RUS in its Guidance for Preparing a Macro-Corridor Study (RUS 2011) and the Electric Power Research Institute (EPRI) and Georgia Transmission Corporation Overhead Electric Transmission Line Siting Methodology (EPRI 2006). These documents detail a process for combining GIS with publicly available regulatory, environmental, cultural, engineering, and economic data to identify areas suitable for new transmission lines. Processes outlined in these documents can be modified and customized to meet the needs of independent utilities.

AMA identified three overarching factors in routing the transmission line: the built environment, natural environment, and engineering. The built environment evaluates factors relating to the manmade environment, such as proximity to buildings, building density, structures eligible for the NRHP, mines, and existing utility ROWs. The natural environment evaluates factors such as streams and wetlands, floodplains, land cover, karst features, and sensitive species or habitats. Engineering considers the feasibility of the design, such as construction obstacles, span distances and clearance requirements, terrain, and maintenance requirements.

GIS served as the primary method for managing and visualizing compiled data, as well as analyzing the factors for siting the transmission line. Data from existing public sources such as the Arkansas GIS Office, NRCS soils data, FEMA floodplain data, and USGS aquifer, earthquake, landslide, and land use data were incorporated into a GIS database. Characteristics for each data factor were assigned a suitability value from zero to nine that reflected the suitability of each characteristic for construction, with a value of zero indicating greatest suitability and nine the least suitable. The suitability value for each data factor were then overlaid and tallied to generate suitability maps for the built environment, natural environment, and engineering. The three suitability maps were then combined to create an overall Project suitability map

(Figure 3.13-1). A least cost path algorithm was used to generate the most desirable macro-corridor based on the overall suitability factors (Figure 3.13-2). The suitability study and macro-corridor figures utilize a color gradient to represent factor complexity; the dark green side of the gradient represents low factor areas and the most preferred routing areas while the red/orange represents high factor areas and the least preferred routing areas.

3.13.3 Public Scoping of Route Development

The results of the suitability and routing study were presented to the CECC Project team and combined with their knowledge of the area and used to identify members of the public who will likely be directly affected by the transmission line. Identified members of the public included landowners that might be crossed by the Project and city and county officials. CECC invited property owners and city and county officials to Project meetings on July 11 and 18, 2019 held at CECC's Community Room in Huntsville, AR, and on July 25, 2019, at the Rule United Baptist Church, approximately four miles south of Green Forest, AR. The Project was also publicly noticed as part of the Certificate of Environmental Compatibility and Public Need (CECPN) process with the Arkansas Public Service Commission (APSC) to encourage any public member to provide feedback on the proposed Project.

The open house created an informal meeting environment where attendees discussed the proposed transmission line with the Project team. Exhibits that presented the Project need, routing, structure design, construction requirements, easement information, and potential impacts were used to facilitate dialogue with attendees. CECC also attempted to identify what interest an attendee had in the Project, their preference for route locations on their property, physical and engineering obstructions on properties, and general construction and operational concerns regarding the Project. The face-to-face interaction with attendees and landowners, combined with the suitability and routing study, provided the CECC Project team a solid baseline of information to evaluate and identify potential routing options.

After the open house events, the CECC Project Team met to evaluate the information exchanged with attendees. Collectively with the route suitability and macro-corridor study, AMA identified 17 potential route alternatives between the Dry Creek Switching Station to the CECC Smyrna Transmission-Distribution. These routes minimized length, collocation with existing utility ROWs, and followed existing property lines, section lines, fence rows, ditches, tree lines, and other natural boundaries, which is consistent with APSC routing guidance (Docket 89-164-U; Order #12). The route alternatives are presented in Figure 3.13-3.

3.13.4 Selection of Preferred Route

ROW agents proceeded to contact the landowners who were likely to be directly affected by the identified routes. Based on routing conversations with landowners and consideration of the feasibility of constructing the identified routing options, CECC identified a preferred route that accomplishes the following:

- meets the purpose and need of the Project by identifying a 161-kV transmission line route between the Dry Creek Switching Station to the Smyrna Transmission-Distribution Substation;

- sites the route in an unimproved, undeveloped, sparsely populated portion of northwestern Arkansas which reduces aesthetics impacts;

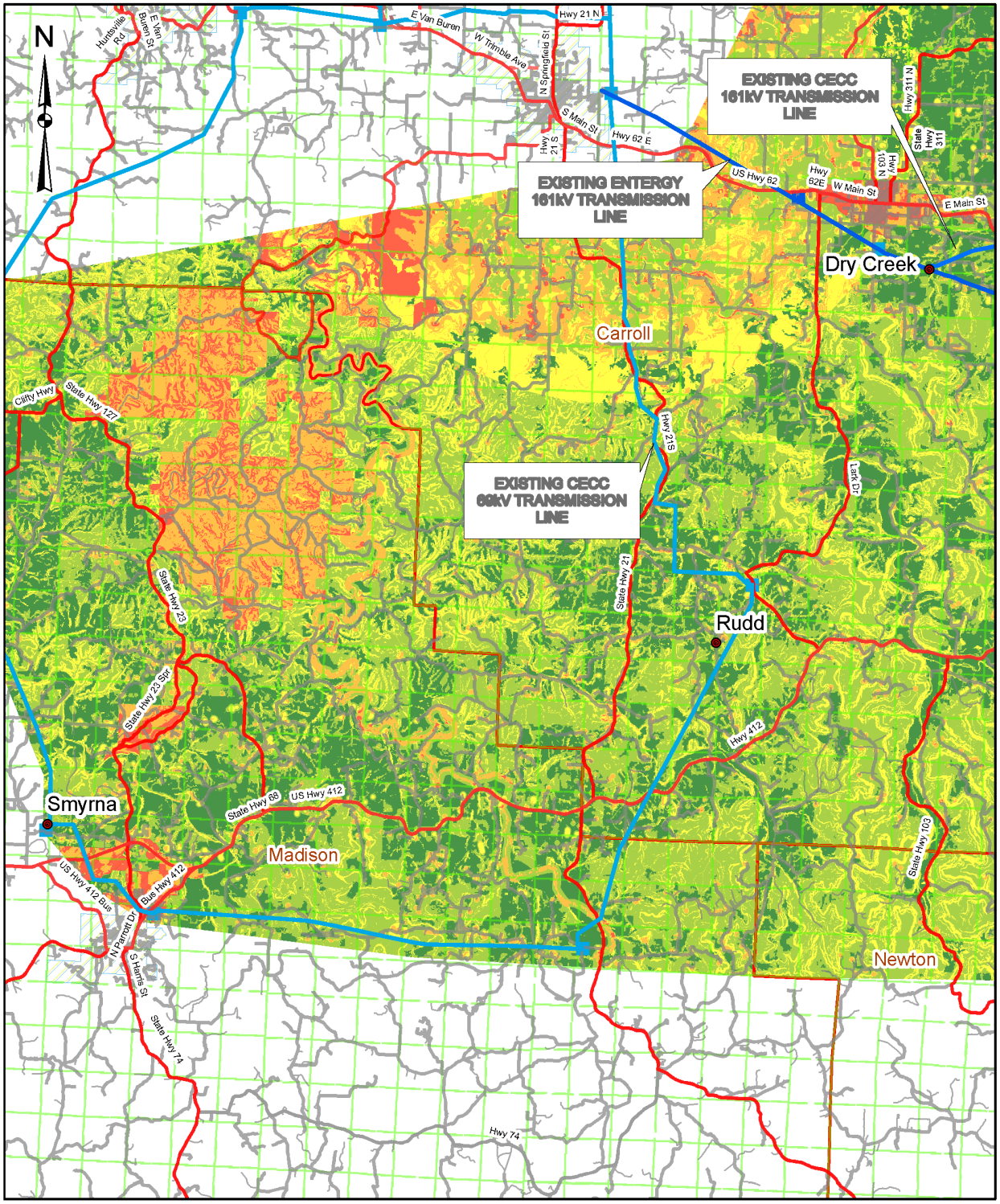
- sites the route in a corridor that has been accepted by all but two landowners along the preferred route, and the coordination with landowners to develop the route has considered existing and planned property uses and reduces irreversible and irretrievable commitment of resources to the extent practicable;

- sites structures outside of resources identified during field surveys to the extent practicable while considering engineering and span requirements and the factors above; and

- minimizes the length of the route to the extent practicable to minimize the number of structures needed to construct the Project and cost required to construct and maintain the transmission facility.

Following determination of the preferred route, CECC ROW agents contacted landowners along the route to initiate easement negotiations. CECC obtained easements for the ROW from all but two landowners along the preferred transmission line route. Negotiations with the remaining landowners are ongoing and will be finalized prior to initiating construction. Construction will not commence until all easements are obtained.

Figure 3.13-1 Project Suitability Map



Carroll Electric Cooperative Corporation DRY CREEK - SMYRNA OVERALL SUITABILITY MAP	Date: 1/20/2022 DC-SM SHEET: DC-SM-0200

Figure 3.13-2 Macro-Corridor Map

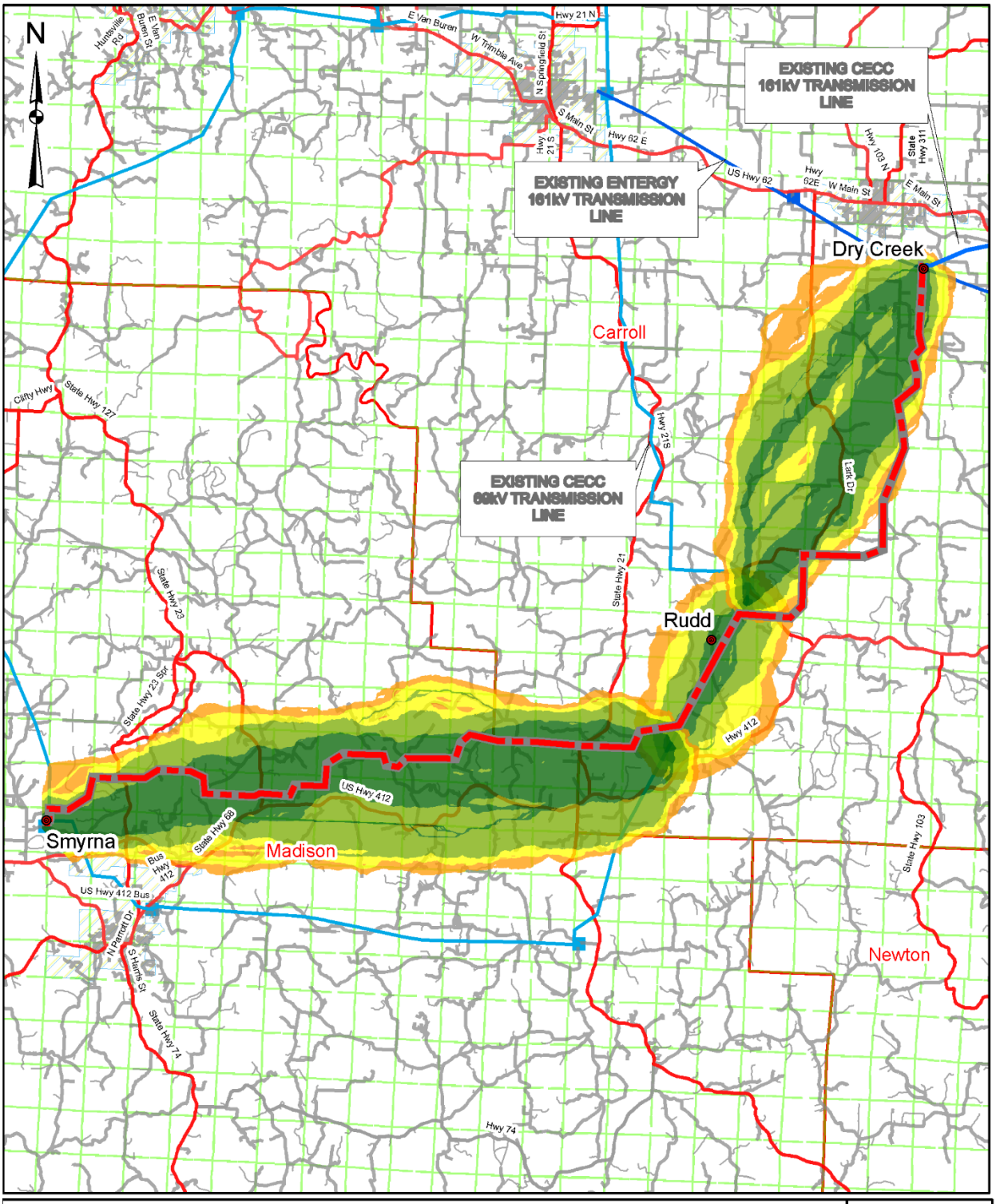
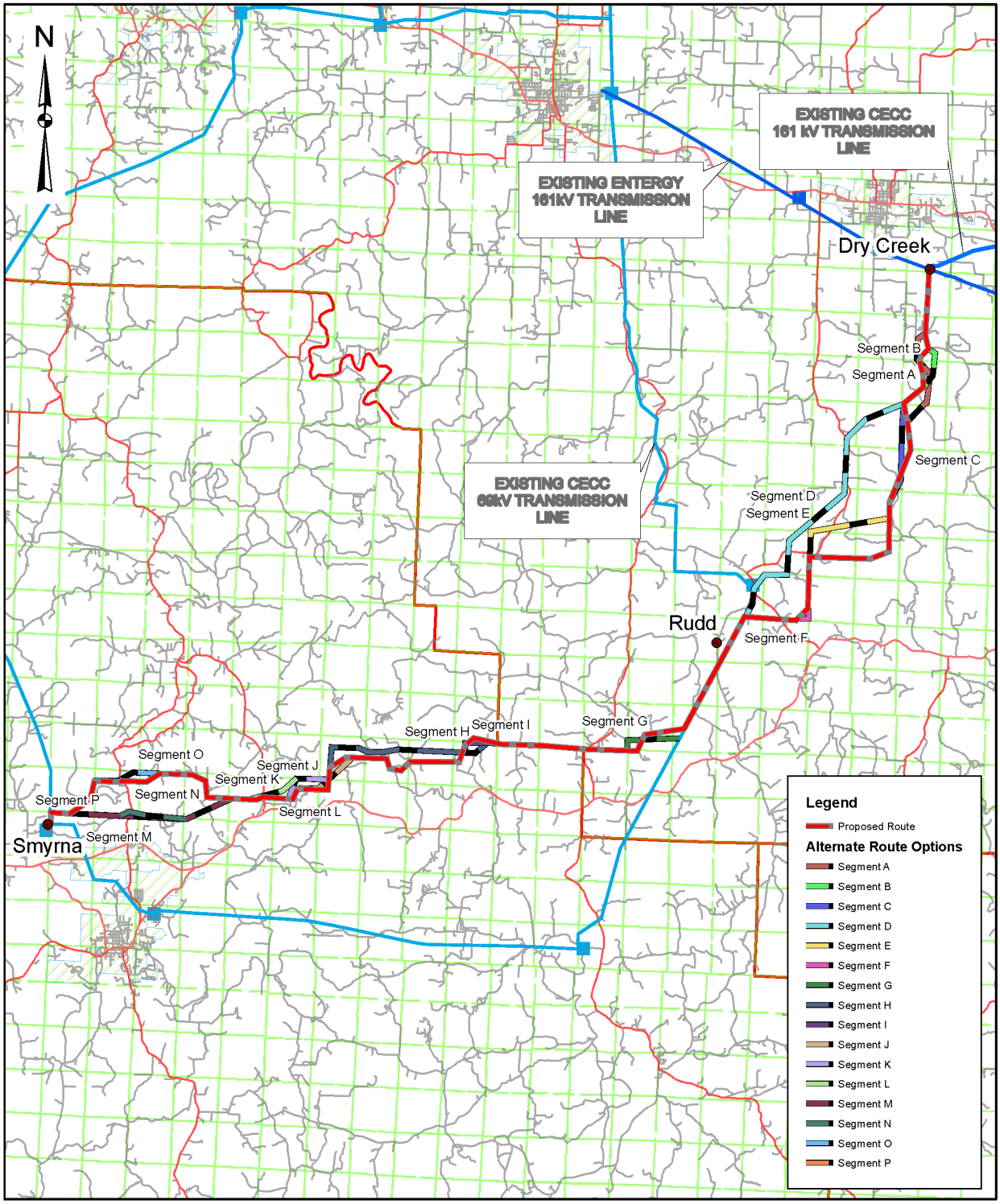


Figure 3.13-3 Route Options Map



Carroll Electric Cooperative Corporation
DRY CREEK - SMYRNA
ROUTE OPTIONS

Date: 1/20/2022
DC-SM
SHEET:
DC-SM-0202

4.0 CUMULATIVE EFFECTS

In accordance with Council on Environmental Quality (CEQ) 2022 regulations for implementing NEPA, effective May 20, 2022, we identified other actions in the vicinity of the proposed Project facilities and evaluated the potential for a cumulative impact on the environment. As defined by the CEQ, a cumulative effect is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of the agency or party undertaking such other actions. Cumulative impacts can result from individually minor, but collectively significant actions, taking place over time. The CEQ guidance states that an adequate cumulative effects analysis may be conducted by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.

As described in the previous sections, the existing environment is representative of the impacts of past projects and actions. In this analysis, we consider the impacts of past projects to have become part of the affected environment (environmental baseline), which is described and evaluated in the preceding environmental analyses; however, ongoing effects of past actions that are relevant to the analysis are also considered. "Present" projects are those currently ongoing (either being constructed or are in operation) and affecting the environment in such a manner that will contribute to a cumulative impact. "Reasonably foreseeable" projects are proposed projects or developments that have applied for a permit from a local, state, or federal authority or planned projects, which have been publicly announced.

4.1 Past Present and Reasonably Foreseeable Future Actions

Past, present, and reasonably foreseeable future actions that could have a cumulative impact on resources that could be impacted by the proposed Project are presented in Table 4.1.

Table 4.1
Cumulative Impact Table

Action Name	Present	Reasonably Foreseeable	Action Location	Action Description	Action Schedule
Private Agricultural Activities	X	X	Throughout Project Area	Hay, grazing, and poultry activities	Continuous
Electric Transmission Infrastructure	X	X	Throughout Project Area	Maintenance or enhancement of distribution and transmission infrastructure	Unknown
Transportation Infrastructure	X	X	Throughout Project Area	Maintenance or enhancement of road infrastructure	Unknown
Residential Infrastructure	X	X	Throughout Project Area	Building of single-family residences	Unknown
Nimbus Wind Farm		X	Carroll County, south of Green Forest	180-megawatt wind and associated infrastructure	Unknown

Table 4.1
Cumulative Impact Table - Continued

Action Name	Present	Reasonably Foreseeable	Action Location	Action Description	Action Schedule
Combs to Huntsville Overlay Project		X	3.2 miles southeast of the proposed project in Huntsville, Arkansas	Trenching and shoulder preparation, aggregate base course, bonded asphalt, approach gutters, guardrails, and rumble strips and pavement markings	2023

These actions are distinct and separate actions, have separate purposes and needs, and could be constructed and operated independently of the proposed Project.

4.2 Cumulative Resource Impacts

As described in Section 3.0, the Project will not impact geologic resources, floodplains, groundwater, coastal resources, or environmental justice communities; therefore, cumulative impacts on these resources will not be realized and are not evaluated in this section. Below, we assess the potential for cumulative impacts on land use, wetlands, surface waters, biological resources, cultural resources, aesthetics and visual resources, air quality and noise, socioeconomics, transportation, and human health and safety.

4.2.1 Land Use

The current land use in the Project area is predominately pasture/hay land and forest. Land use is anticipated to remain similar to current use along the transmission line ROW as grazing and hay production practices can continue within the ROW. These minor changes in overall land use will be insignificant within the Project area. After construction is complete, disturbed pasture/hay and forest areas will be revegetated as necessary. Short term construction impacts will be minimized with BMPs to control and minimize erosion. Therefore, there are minimal permanent or long-term cumulative impacts to land use expected from the proposed Project.

Construction and operation of the proposed wind farm would result in cumulative land use impacts. The creation of access and maintenance roads and turbine pads would convert land from its current use to developed land. The farm would likely require the installation of a substation and electric transmission lines to connect the Project to the energy grid.

The Combs to Huntsville Overlay Project is not expected to have a cumulative impact on land as the highway system is already in place and the project is considered maintenance of an existing road ROW.

4.2.2 Wetlands and Water Resources

The majority of the Project's wetland impacts will be temporary and wetland restored; however, 0.48 acre of forested wetland will be converted to emergent wetland within the maintained ROW and one structure will be placed in an emergent wetland resulting in 0.05-acre of wetland loss. Impacts on surface waters

will be minimized by avoiding crossing during high flow periods and using temporary bridging to cross flowing waterbodies. The wind and road projects would likely result in temporary wetland and surface water impacts during construction, and permanent access roads associated with the wind project would likely cross and permanently impact some wetland resources and surface waters. We anticipate turbine pads could be sited to avoid permanent wetland and surface water impacts and any future residential development in the Project area would avoid wetland and surface water impacts.

The wind and road projects would likely require permits from the USACE and implementation of permit and regional conditions would minimize wetland and surface water impacts. Proper implementation of BMPs for erosion and sediment control as required by state stormwater permit requirements will also minimize or avoid wetland and surface water impacts; therefore, we do not anticipate significant cumulative impacts on wetlands and surface waters.

4.2.3 Biological Resources

The proposed Project, wind project, and to a lesser degree residential development would contribute to cumulative vegetation and wildlife impacts in the Project area. Construction activity and traffic in the Project area could temporarily displace wildlife species and tree clearing would fragment forested habitats and effect wildlife movement. These impacts increase if multiple projects were to occur at the same time and within the same location. Temporary displacement of species might occur due to vehicle traffic and construction activities. The majority of species affected would be able to safely move away from any impacts and any disruption would be short-term. Once construction of the Project has been completed, it is anticipated that wildlife would return to normal with minimal permanent effects.

Additional utility ROWs, permanent access roads or driveways, and operational wind turbines would convert forested habitat to maintained utility ROW, developed land, and residential land. We assume that the wind project would be subject to similar federal review and consultation with the USFWS as the proposed Project. As such, cumulative impacts on such species would be considered and reduced or eliminated through conservation and mitigation measures identified during those consultations and measures such as tree clearing restrictions would be implemented to minimize impacts on sensitive species such as bats.

4.2.4 Cultural and Historic Properties

Transmission line structures have been sited to avoid archaeological cultural resources and it is likely that the wind project would also be designed to avoid archaeological cultural resources. If any sites are identified during the construction phase, construction would be halted immediately and RUS, AHPP, any interested tribe, and any other necessary consulting parties would be notified in order to initiate the procedures outlined in 36 CRF Part 800. Therefore, we do not anticipate any cumulative impacts on cultural resources.

4.2.5 Aesthetics and Visual Resources

In addition to the proposed Project's aesthetics and visual impacts, construction and operation of a 180-megawatt wind farm would have cumulative visual impacts in the Project area. Wind turbines would likely be placed at higher elevations and would be visible for miles. Residents and common commuters in the area would likely see both the transmission line and wind farm from various vantage points in the landscape and from public roads.

4.2.6 Air Quality and Noise

Construction of the transmission line, wind farm, and road maintenance would have similar construction related emissions and noise. Generally, air and noise emissions from construction are low and temporary in nature, fall off rapidly with distance from the construction site, and would not result in long-term impacts. These emissions would only be cumulative if project activities occur at the same time and are in proximity to each other. Due to the distance between the proposed project and the transmission line, we do not anticipate cumulative air or noise impacts. If the wind farm and transmission line were built at the same time and in proximity to each other, locals may experience a minor increase in cumulative air and noise impacts. However, measures to minimize these impacts, such as dust control, reduced idling time, and proper equipment maintenance would reduce emission impacts. Once construction activities are complete, construction-related emissions would end. The proposed Project is not expected to be a significant increase of current emissions compared to current ambient air and noise in the area and no permanent or long-term cumulative impacts to air quality and noise is anticipated.

4.2.7 Socioeconomics and Environmental Justice

Construction of the proposed Project is not anticipated to negatively impact the local economy or public services provided in the area. Temporary jobs or job security from construction of the projects would be created for local and regional construction workers. Because the purpose of the transmission line, wind farm, and road maintenance is to provide additional power and electric reliability to the local and regional communities, or to improve public commuting and travel, there would be a socioeconomic positive impact to the community. As stated in Section 3.10, the proposed Project is not in an environmental justice community.

4.2.8 Transportation

Construction and operation of the projects 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. However, there would not be any ongoing traffic related to project operations except periodic inspections and maintenance. 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.

4.2.9 Human Health and Safety

There are a number of risks to human health and safety possible for construction personnel on Project construction through the operation of heavy equipment, the use of tools during construction, and working in an active construction site. Additionally, hazardous substances or wastes may be released, generated, or required for construction and operation in the Project Area. These hazards would be mitigated by compliance with all applicable federal and state occupational safety and health standards, NESC regulations, Occupational Health and Safety Administration guidelines, and utility design and safety standards. Local emergency and health services would be called upon to provide first aid and assistance in the event of an accident or emergency. All construction sites would be managed to reduce risks to the public and workers in the area. The general public would not be allowed in any active construction sites.

Any transmission line constructed as part of the wind farm may also result in EMR and EMF; however, because the transmission line would not likely be constructed in proximity to the proposed transmission line, cumulative EMR or EMF impacts are not anticipated.

4.2.10 Cumulative Effects Conclusion

Construction of the Project, in addition to other projects within project area, could have minor cumulative impacts on a range of environmental resources, as discussed above. The majority of the cumulative impacts would be minor and temporary during construction. However, some long-term and permanent cumulative impacts would occur in forested areas and associated with wildlife habitats. Some cumulative benefits include new jobs and improvement of local road and electric infrastructure. For federally regulated projects, there are laws and regulations in place that protect waterbodies and wetlands, threatened and endangered species, and historic properties. We only have limited information about potential or foreseeable private projects in the region, such as residential development. For some resources, there are also state laws and regulations that apply to private projects. Given the Project BMPs, design features, and mitigation measures that would be implemented, and the federal and state laws and regulations protecting resources that would apply to the other projects, we conclude that when added to other present and reasonably foreseeable future actions, cumulative impacts on environmental resources within the Project area would not be significant.

5.0 SUMMARY OF MITIGATION

BMP and mitigation measures 1 through 7 are general mitigation measures that CECC will implement to protect resources.

1. Areas of sensitivity or concern that will be avoided during construction will be marked with flagging, temporary fencing, or signs to ensure avoidance.

2. In areas prone to compaction, such as areas with hydric soils, CECC will place timber mats along travel lanes to minimize rutting and soil compaction potential, as deemed necessary based on soil conditions during construction.

3. CECC will install ECDs such as silt fence or filter logs prior to commencing ground-disturbing activities and erosion control blankets where soils are exposed and/or seeding has occurred.

4. CECC will develop and implement a SWPPP to minimize erosion and sediment transport on disturbed soils. The SWPPP will include requirements for BMP installation, ROW monitoring, and BMP repair.

5. CECC will complete Project activities under the USACE NWP 57 for electric utility line and telecommunications activities, along with any regional condition required in Arkansas.

6. All areas of ground disturbance will be rehabilitated once construction is complete. Rehabilitation will include using native species or nonpersistent annual species to revegetate work areas upon completion of construction. Successful revegetation is defined as a uniform 70 percent cover of perennial non-invasive species.

7. CECC will implement its Vegetation Management Program during restoration and operation of the transmission line.

To minimize impacts on surface waters and aquatic resources, the USFWS recommends that CECC implement its Streambank Stabilization Species Protection Measures which are listed as mitigation measures 8 to 17 below (USFWS 2022b). CECC will incorporate these measures into its construction plan.

We note that other than the placement of temporary bridges and the removal of woody vegetation, no disturbances to streambanks or streambeds are anticipated and many of these recommended measures do not apply to the Project.

8. Underlay stone with geotextile filter fabric, gravel filter blanket, or equivalent best available technology.

9. Rock should be dense, durable, equidimensional (not flat or thin), angular, and clean.

10. Rock size is dependent upon bank slope and water velocity. Larger rock should be used at the base and face of the slope.

11. Grade bank slope to a maximum 1.5:1.

12. Riprap should be keyed into the stream bed to ensure its stability and effectiveness.

13. When practical, do not operate motorized equipment in the water. Work from the top of the bank.

14. The in-water portion of the Project area should be enclosed by a floating silt curtain or other site-appropriate erosion control measures during construction to exclude fish and contain turbid (muddy) waters resulting from excavation, grading, and placement of fill materials.

15. Restore damaged areas, particularly bare erodible soils, to pre-work conditions.

16. Dispose of excavated materials in upland area to prevent sediment transport to streams.

17. Bioengineering solutions should be considered as a means to minimize riprap use.

The USFWS also recommends that CECC implement its Pipeline and Linear Projects Species Protection Measures (USFWS 2022c) which are listed as measures 18 to 28 below. CECC will incorporate these measures into its construction plan. We note that many of these measures apply to pipeline construction or trenching activities and do not apply to the Project, such as the width of a typical maintained right-of-way.

18. Select pipeline corridors to avoid steeper slopes and minimize stream crossings.

19. Avoid paralleling stream channels whenever possible in new construction. If a pipeline must parallel a stream channel, maintain a 100-foot buffer on slopes less than or equal to 15 percent, a 125-foot buffer on slopes 16 to 30 percent, and a 150-foot buffer on slopes greater than 30 percent.

20. Incorporate properly installed and maintained erosion and sediment best management practices until all exposed soils are permanently stabilized.

    a. Install and maintain slope breaks at proper spacing to prevent channel formation down slope of outlets. Do not outlet slope breaks into a stream.

b. Ensure proper use, installation, and maintenance of energy dissipaters (e.g., straw logs, etc.), silt fence, and trench breaks.

c. Remove temporary sediment barriers when replaced with permanent erosion control or when revegetation is successful.

d. Stabilize bare, erodible soils with erosion control measures prior to the onset of a 0.5 inch/24 hour forecasted rainfall or when abandoning site for greater than two weeks.

e. Within 24 hours following precipitation events at Project site, all erosion and sediment control measures must be maintained and either repaired or replaced.

21. Stage equipment a minimum of 250 feet from stream banks or as far from streambank as the site characteristics allow.

22. Wet open cut trenching is not permissible. Open cut trenching in a dry channel (flow temporarily diverted) is allowed.

23. No stream channelization.

24. The maximum combined temporary/construction and maintained/permanent right-of-way width cannot exceed 50 feet. This restriction begins at the ordinary high-water mark on each side of the stream and extends out 50 feet.

25. Minimize clearing and excavation of stream banks and bed.

26. When possible, use temporary (e.g., hardwood plank bridges, etc.) or permanent bridges to move equipment across streams with flow.

27. Application of herbicides, pesticides, and fertilizes must follow label instructions. Use of chemicals in water bodies must be an approved and labeled use. Upper Little Red River Watershed and Natural Gas Industry only - in addition to the above guidelines

28. Adhere to the U.S. Fish and Wildlife Service's Arkansas Best Management Practices for Natural Gas Pipeline Construction and Maintenance Activities in the Fayetteville Shale Area – Upper Little Red River Watershed. *We note that the Project is not located within this watershed; therefore, the BMPs do not apply to the Project.*

To minimize impacts on migratory and breeding birds, the USFWS recommends that CECC implement the conservations measures in its Nationwide Standard Conservation Measures (USFWS 2016) which are referenced only. CECC will incorporate the Nationwide Standard Conservation Measures into its construction plan.

CECC will incorporate RUS's Historic (Inadvertent Discovery) Mitigation Measures during the Project, which are listed as measures 29 to 35 below. If during the course of any ground disturbance related to the 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, CECC shall comply with the following:

29. 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 Engineer to contact the appropriate RD personnel. The Engineer shall engage a Secretary of the Interior (SOI) qualified professional archaeologist 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.

30. 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 archaeologist.

31. 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).

32. 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.

33. 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.

34. 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 consulted.

35. Inadvertent discoveries on federal and tribal land shall follow the processes required by the federal or tribal entity.

6.0 COORDINATION, CONSULTATION, AND CORRESPONDENCE

Construction and operation of the transmission line requires consultation with and authorization from multiple federal, state, and local agencies. The federal, state, and local statues and permits that pertain to the proposed transmission line are summarized in Table 5.0 and further discussed below.

Table 5.0
Relevant Federal, State, and Local Authorizations

Agency / Permit / Statute	Permit or Approval Summary
U.S. Department of Agriculture, Rural Utilities Service (RUS); Rural Electrification Act of 1936	Authorization of grants or funding under the Rural Electrification Act of 1936. Under RUS's Electric Program, direct loans, grants, and other energy financing are reviewed and authorized to electric utilities to maintain, expand, upgrade, and modernize America's rural electric infrastructure.
Federal Aviation Administration (FAA); Notice of Airway Obstruction; 49 U.S.C. §1501; 14 CFR Part 77	Notification is required for structures exceeding a 50:1 height ratio within 10,000 feet of a public use or military airport with a runway <3,200 feet; structures exceeding a 100:1 height ratio within 20,000 feet of a public use or military airport with a runway >3,200 feet; structures exceeding a 25:1 slope within 5,000 feet of a heliport; or any structure height exceeding 200 feet. No public or military airstrips identified by the FAA's Airport Data and Contact Information database (FAA 2021) meet any of these parameters.
U.S. Army Corps of Engineers (USACE); Clean Water Act (CWA); 33 U.S.C § 1344; Section 404	Discharge of dredged or fill material in Waters of the U.S. including wetlands. No Section 10 Navigable Waters are crossed by the Project. CECC received authorization from the USACE on November 3, 2022.
U.S. Fish and Wildlife Service (USFWS); Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act (BGEPA); 50 CFR Part 402; 16 U.S.C. §703-712	A summary of consultation and potential effects to protected species, migratory birds, and bald eagles is provided in Section 3.6.
Arkansas Historic Preservation Program (AHPP); Section 106 of the National Historic Preservation Act (NHPA) and equivalent state statutes; 36 CFR Part 800 Act 480 of 1977, State Antiquities Act 1967, 1991, 2007	A summary of consultation and potential effects to historic properties is provided in Section 3.7.
Arkansas Public Service Commission (APSC); Certificate of Environmental Compatibility and Public Need (CECPN); Ark. Code Ann. 23-18-510	Construction of utility facilities, and specifically those that cross private land, require filing with the APSC. The APSC issued a CECPN on September 16, 2022.

Table 5.0 Relevant Federal, State, and Local Authorizations - Continued	
Agency / Permit / Statute	**Permit or Approval Summary**
ADEQ; Arkansas Construction Stormwater General Permit; 33 U.S.C. §1251 et. seq. as amended to date; Ark. Code Ann. 8-4-101 et seq. as amended to date	Discharge of storm water from construction sites to waters of the State of Arkansas. CECC submitted a Notice of Intent and SWPPP to ADEQ on November 17, 2022. CECC received Notice of Coverage from the ADEQ on December 14, 2022.
ADEQ; Section 401 of the CWA and Short Term Activity Authorization (STAA)	Discharge to waters of the State of Arkansas; Section 401 Water Quality Certification is granted through the USACE Nationwide Permit (NWP) Program under certain conditions. CECC has confirmed with the ADEQ that as designed a STAA is not required for the proposed Project activities.
Arkansas Department of Transportation and Madison County and Carroll County Road Departments; Road crossing permits	CECC will obtain any necessary permits for crossing roads and completing work within road ROWs prior to construction.

6.1 Federal Agencies

6.1.1 U.S. Army Corps of Engineers

Under Section 404 of the CWA, the discharge of dredged or fill materials, draining, excavation, or mechanized land clearing in wetlands and Waters of the U.S. is subject to USACE regulation and may be authorized by one of the USACE's NWP. NWP 57 authorizes discharges of dredged or fill material into Waters of the U.S. and structures or work in navigable waters for the construction, maintenance, or repair of electric utility lines and telecommunication lines. The Project will meet the requirements of NWP 57 and work will be completed under it. CECC submitted a Pre-construction Notification to the USACE on September 15, 2022. The USACE authorized Project activities on November 3, 2022. The authorization letter from the USACE is provided in Appendix B. CECC will ensure all general and regional conditions of NWP 57 are incorporated into construction documents, specifications, or other instructions.

6.1.2 U.S. Fish and Wildlife Service

Federal agencies are required by ESA Section 7(a)(2) to ensure that any action authorized, funded, or carried out by the agency will not jeopardize the continued existence of a federally listed threatened or endangered species or species proposed for listing, or result in the destruction or adverse modification of designated critical habitat. As the lead federal agency, the RUS is responsible for USFWS consultations to determine whether any ESA-listed species or any of their designated critical habitats will be affected.

Migratory birds are protected under the MBTA, which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued pursuant to federal regulations. Executive Order 13186 directs the lead federal agency to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse impacts on migratory birds through enhanced collaboration with the USFWS.

Bald and golden eagles are protected under the BGEPA (16 U.S.C. 668-668d). The BGEPA prohibits the take, possession, sale, offer to sell, purchase, barter, transport, export, or import, of any bald or golden

eagle, alive or dead, including any part, nest, or egg, unless allowed by permit. If a proposed project or action occurs in an area where nesting, feeding, or roosting eagles occur, the proponent often needs to implement special conservation measures to comply with the BGEPA.

In cooperation with and on behalf of RUS, CECC and Merjent consulted with the USFWS regarding federally protected species, migratory birds, and eagles. Consultation identified measures that if implemented will avoid adverse impacts to federally protected species. Further discussion regarding sensitive species is provided in Section 3.6. Correspondence with the USFWS is provided in Appendix B.

6.2 State Agencies

6.2.1 Arkansas Historic Preservation Program

Section 106 of the NHPA of 1966, as amended requires, for any federal, federally assisted, or federally licensed undertaking, that the federal agency consider the effect of that undertaking on any district, site, building, structure, or object that is listed on or eligible for listing on the NRHP before the expenditure of any federal funds or the issuance of any federal license. In cooperation with and on behalf of RUS, CECC and Merjent are coordinating with the AHPP regarding historic and prehistoric cultural resources. Further discussion regarding historic properties and cultural resources is provided in Section 3.7. Correspondence with the AHPP is provided in Appendix B.

6.2.2 Arkansas Public Service Commission

CECC applied for a CECPN from the APSC under Docket No. 22-005-U. The CECPN application included an environmental report that included information on certain environmental and land use factors, addressed relevant questions as described in the APSC regulations and filing requirements, and provided an alternative routing analysis. The APSC issued a CECPN to CECC on September 16, 2022. CECC will ensure any provisions of APSC's Order are addressed and incorporated into construction documents, specifications, or other instructions. Once incorporated, a preconstruction meeting or training will be held to ensure compliance with APSC provisions.

6.2.3 Arkansas Department of Environmental Quality

CECC will be required to obtain a construction stormwater general permit (ARR150000) from the ADEQ. CECC developed and will implement a SWPPP during construction and restoration of the Project. CECC submitted a Notice of Intent to the ADEQ on November 17, 2022. CECC received Notice of Coverage from the ADEQ on December 14, 2022. The BMPs specified in the SWPPP will be implemented and monitored in the field.

The ADEQ has granted Section 401 Water Quality Certification for activities that qualify for coverage under the USACE NWP Program (specifically NWP 57 for this proposed activity) provided all conditions of Section 401 are met (ADEQ 2020a). The proposed transmission line installation activities comply with Section 401 conditions and the ADEQ has confirmed that individual Section 401 Water Quality Certification is not required for the Project. Additionally, the ADEQ has confirmed that STAA is not required for Project activities that cross waterbodies. Correspondence with the ADEQ is provided in Appendix B.

6.3 Tribal Consultation

CECC initiated outreach with four Native American Tribes on August 25, 2021 with a letter providing a Project description, contact information, and mapping. The Tribes included the Delaware Nation, Oklahoma; Osage Nation; Shawnee Tribe; and Cherokee Nation. The letter requested any information or concerns regarding places of traditional or cultural significance. CECC received a response from the Osage Nation on November 19, 2021, requesting review of the cultural survey report for the Project. CECC provided a copy of the Phase I Survey Report to the Osage Nation on December 9, 2021. No other responses or Tribal inquiries were received during the initial outreach.

As described in Section 3.7, CECC and Merjent completed additional archaeological surveys of the Project and filed the findings with the AHPP. On November 23, 2022, RUS conducted additional written outreach with the Delaware Nation, Oklahoma; Osage Nation; Shawnee Tribe; Cherokee Nation; Apache Tribe of Oklahoma; Quapaw Nation; and Caddo Nation of Oklahoma regarding the new and previous findings and requested any information or additional concerns these Tribal Nations may have on the Project. The Cherokee Nation stated they do not have any additional comments but are to be notified if the scope of the Project changes. No other responses or Tribal inquiries were received as of the publication of this EA.

6.4 Public Review of EA

A copy of the EA may be viewed on our website at: https://www.rd.usda.gov/resources/environmental-studies/assessment/dry-creek-smyrna-transmission-line.

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8.0 LIST OF PREPARERS

This EA was prepared by Merjent under the direction of RUS and CECC. The following is a list of preparers of this document.

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Appendix A

Project Overview and Route Maps

Appendix B

Agency Correspondence

Appendix C

NEPAssist Report and Federal Database Review

Appendix D

Arkansas Department of Environmental Quality and Arkansas GIS Office Database Reviews

Appendix E

Soil and Flood Zone Maps

Appendix F

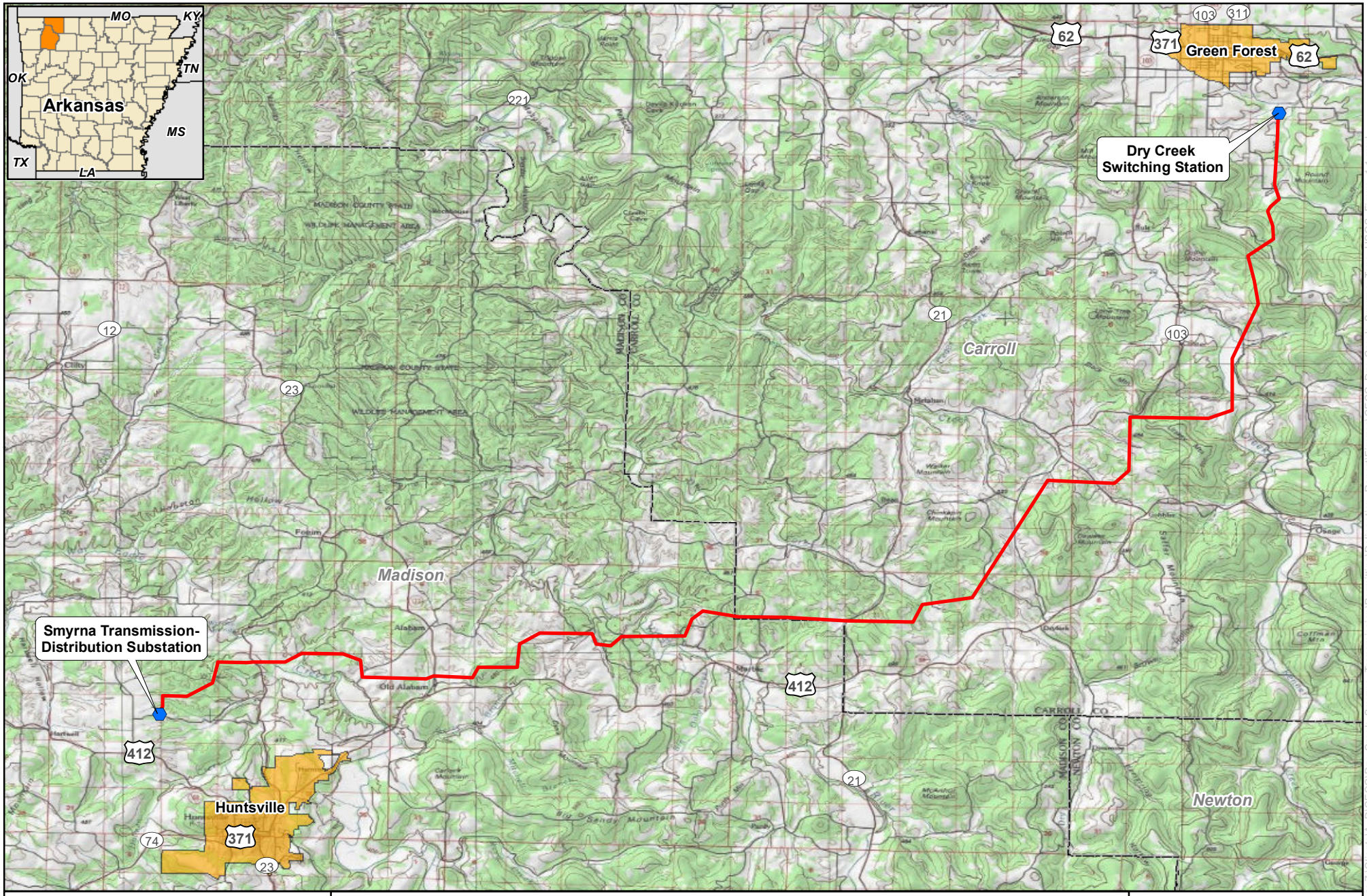
Wetland and Waterbody Survey Report

Appendix G

EJScreen 2.1 Database Review

Appendix A

Project Overview and Route Maps



Appendix A - Overview Map
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Carroll and Madison Counties, Arkansas

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\Delineation_Report\Figures\CECC_Dry_Creek_Smyrna_Topo_USGS_Figure_1.1.mxd

Date: (1/31/2022)

Prepared by: Merjent

For Environmental Review Purposes Only

Carroll County

Madison County

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

0 1 2 Miles

N W E S

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Appendix A - Index Map Sheet
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Carroll and Madison Counties, Arkansas

Centerline
Map Extent
County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\Delineation_Report\CECC_Dry_Creek_Delineation_Report_Figure_3_Index.mxd

Date: (1/26/2022)

001-02246-002

w02
w01
dp04
dp03
dp02
dp01
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
S03
S02
S01

001-02177-001

001-02242-000

001-02177-000

001-02250-000

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry Creek_Appendix\B_Project_Route_Maps.mxd

Date: (10/27/2022)

001-02323-000

dp11
dp10
w06
s06
001-02321-002
County Road 906
w07
dp12
dp13
1.4
1.5
1.6
s07
w08
s08
dp15
dp14
1.7
dp17
dp16
w09
2.2
s11
p02
s10
w10
dp18
dp19
2.1
2
1.8
1.9
s09
001-02371-000
001-02320-000
001-02321-001
County Road 993
County Road 933
County Road 993
001-02320-000

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_Maps.mxd

Date: (10/27/2022)

001-02370-001

001-02372-000

001-02371-000

001-02323-000

001-02370-001

001-02320-000

S17
S16
S15
S14
S13
S12
S11
p02
dp18
dp19
w10
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2

0 150 300 Feet

N

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

w13
s20
dp25
dp24
3.4
3.5
3.3
3.2
3.1
3.6
3.7
001-02372-000
001-02370-001
001-02370-001
w11
dp21
dp20
3
s17
s16
2.9
p03
w12
dp23
dp22
001-02476-000
s19
County Road 905
s18

0 150 300 Feet

N NE E SE S SW W NW

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland
- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix\B_Project_Route_Maps.mxd

Date: (10/27/2022)

001-01521-000

001-02476-000

001-01513-000

5.1
5
4.9
4.8
4.7
4.6
4.5
4.4
S33
S32
S31
S30
S29
S28

0 150 300 Feet

N

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-01576-001

001-01526-000

w14

5.7

5.6

5.5

s34

5.4

5.3

5.2

001-01521-000

5.1

dp26

dp27

5.8

001-01577-000

County Road 995

County Road 951

001-01513-000

0 150 300 Feet

N

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

Milepost
Wetland Data Point
Delineated Waterbody
Delineated Pond
Delineated Wetland
PEM
PFO
PSS
Access Road
Centerline
Survey Corridor
Parcel Boundary
County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-01577-000

w16

w15

w14

dp29

dp30

dp28

dp31

dp26

dp27

6.5

6.4

6.3

6.2

6.1

6

5.9

5.8

S36

S35

001-01579-000

001-01576-001

County Road 995

0 150 300 Feet

N

W

E

S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

Almond Ln

State Hwy 103

County Road 915

001-01678-000

001-01663-000

001-01662-000

001-01665-000

001-01679-000

001-01663-001

001-01684-000

8.7 8.6 8.5 8.4 8.3 8.2 8.1 8 8.8 8.9

S50 S51 S52 S49 S48 S47 S46 S45 S44 S53 S54

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-01685-000

001-01684-000

001-01679-000

001-01678-000

001-01663-001

001-01663-000

Mallard Ln

County Road 953

County Road 915

S37
S56
S55
S54
S53
S52
S51
S50

9.4
9.3
9.2
9.1
9
8.9
8.8
8.7
8.6
8.5

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-01697-000

001-01685-001

001-01685-000

001-01697-001

001-01833-000

10.1

p04

10

9.9

9.8

S57

9.7

9.6

9.5

9.4

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A...D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-01697-000

001-01697-001

001-01839-000

001-01834-000

001-01842-000

001-01840-000

001-01833-000

10.9
10.8
10.7
10.6
10.5
10.4
10.3
10.2
10.1

s60
s59
s58
p04

State Hwy 103

County Road 955

Apple Rd

0 150 300 Feet

N
W E
S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

County Road 720

001-03809-000

001-03798-000

001-03798-000

Hwy 103 S

SS1

11.4

11.3

11.5

11.2

11.1

11.6

001-03812-000

11

10.9

SS2

001-01842-000

11.7

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-03815-002

001-03812-000

001-03815-003

001-03816-001

001-03816-002

S64

S63

S62

12.3

12.2

12.1

12

11.9

11.8

11.7

0 150 300 Feet

N

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_Project_Route_Maps.mxd

Date: (10/27/2022)

County Road 241

001-03375-000

001-03928-001

001-03374-001

001-03928-000

001-03925-000

13.7 13.6 S73 13.5 13.4 S72 13.3 S71 13.2 S70 13.1

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

N W E S

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_B_Project_Route_Maps.mxd

Date: 11/27/2022

0 150 300 Feet

N W E S

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Map 22 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_Project_Route_Maps.mxd

Date: 10/27/2022

County Road 528

State Hwy 21

Highway 21 S

Oak Dr

001-03440-000

16.7

16.6

S38

S37

16.5

16.4

16.3

16.2

16.1

S36

S35

Wildcat Cir

001-03438-000

001-03437-000

0 150 300 Feet

N W E S

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Map 23 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Pr

Date: (10/27/2022)

001-03426-000

17.4
17.3
S92
17.2
S91
17.1
Carroll County
17
Madison County
16.9
S90
16.8
S89
001-03440-000
Highway 21 S
Wildcat Cir

001-09832-000
001-09825-000
001-09825-000
001-03438-000
State Hwy 21
001-03440-000

0 150 300 Feet

N W E S

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Map 24 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-03436-000

001-03426-000

18.1
18
17.9
17.8
SS5
17.7
SS4
17.6
17.5
SS3

Carroll County
Madison County

001-09832-000

Madison 1512

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

0 150 300 Feet

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For Environmental Review Purposes Only

Map 25 of 43

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

N W E S

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Map 26 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_B_Project_Route_Maps.mxd

Date: (10/27/2022)

001-10217-000
001-10211-000
001-10220-000
001-10459-000
001-10458-000
001-10455-000
19.3
19.4
19.2
19.1
19.5
19.6
19.7
19
18.9
s101
s102
s99
s100
s103
s98
p08
County Road 270
Madison 1510
County Road 271

0 150 300 Feet

N W E S

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Map 27 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

Milepost
Wetland Data Point
Delineated Waterbody
Delineated Pond
Delineated Wetland
PEM
PFO
PSS
Access Road
Centerline
Survey Corridor
Parcel Boundary
County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd
Date: (10/27/2022)

0 150 300 Feet

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Map 28 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

Republic Ranch Rd

Madison 1805

001-10440-000

001-10443-000

001-10438-000

21

21.1

20.9

Madison 1530

20.8

001-10443-001

20.7

20.6

S105

20.5

21.2

001-10436-001

001-10445-000

001-10444-000

001-10445-001

001-10437-000

0 150 300 Feet

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For Environmental Review Purposes Only

Map 29 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-10431-000

001-10440-000

001-10445-001

Madison 1500

Madison 1530

Madison 1500

001-10436-001

001-10437-000

22.1

22

21.9

21.8

21.7

21.6

21.5

21.4

21.3

21.2

S109

S108

S107

S106

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-10412-000

001-10431-000

Madison 1500

22.8
22.7
22.6
22.5
22.4
22.3
22.2
22.1
S116
S114
S113
S112
S111
S110
S131
P09

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

0 150 300 Feet

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Map 31 of 43

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland
- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_A

Date: (10/27/2022)

001-10417-001

001-10417-002

001-10584-000

001-10584-001

001-10412-000

23.6
23.5
23.4
23.3
23.2
23.1
23
22.9
22.8

w18
dp34
dp35
p10
s116
s115
s131

0 150 300 Feet

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Map 32 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

Milepost
Wetland Data Point
Delineated Waterbody
Delineated Pond
Delineated Wetland
PEM
PFO
PSS
Access Road
Centerline
Survey Corridor
Parcel Boundary
County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_B_Project_Route_Maps.mxd

Date: (10/27/2022)

001-10417-001

001-10604-000

001-10611-000

001-10602-000

001-10584-000

001-10584-001

001-10605-000

dp35

dp34

w18

23.5

s119

s118

24.4

24.3

24.2

24.1

24

23.9

23.8

23.6

s117

23.7

Driveway

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

0 150 300 Feet

N W E S

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For Environmental Review Purposes Only

Map 33 of 43

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- **Delineated Wetland**
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix_Maps.mxd

Date: (10/27/2022)

0 150 300 Feet

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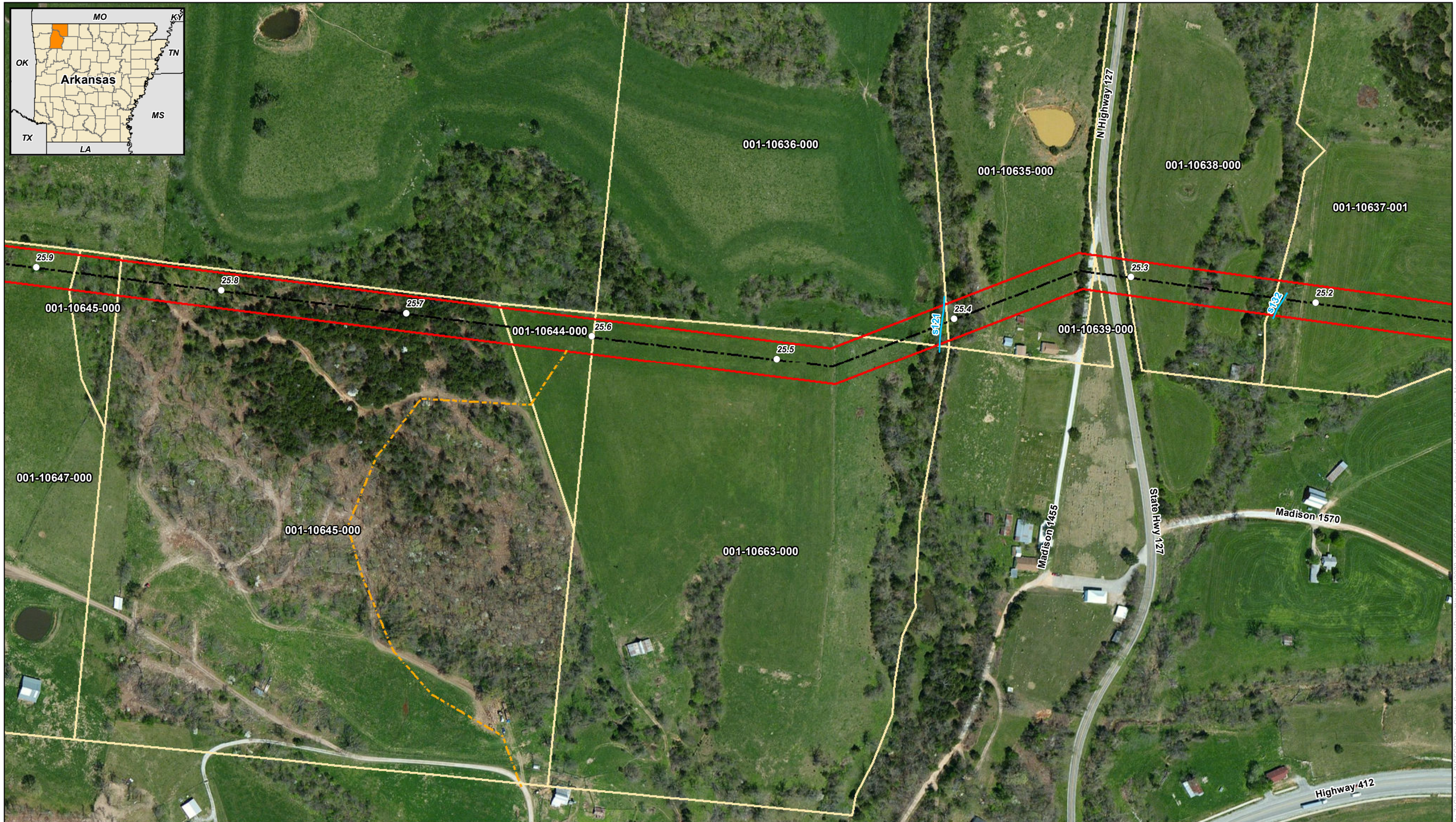
Map 34 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix\B_Project_Route_Maps.mxd

Date: (10/27/2022)



0 150 300 Feet

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Map 35 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Maps.mxd

Date: (10/27/2022)

Madison 1550

001-11228-000

Madison 1335

001-11226-000

26.7

001-11232-000

26.6 26.5 26.4 26.3 26.2 26.1 26 25.9

001-10645-000

001-10645-000

001-11239-000

001-11234-000

001-10647-000

0 150 300 Feet

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Map 36 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

Milepost
Wetland Data Point
Delineated Waterbody
Delineated Pond
Delineated Wetland
PEM
PFO
PSS
Access Road
Centerline
Survey Corridor
Parcel Boundary
County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

Driveway

Driveway

27

26.9

27.1

Madison 1550

p11

001-11226-000

27.2

001-11232-000

001-11228-000

26.8

Madison 1335

27.3

26.7

27.4

26.6

001-11239-000

001-11234-000

001-11240-000

0 150 300 Feet

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Map 37 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

Madison 1550

28
S122
27.9
27.8
27.7
27.6
27.5
27.4
28.1
Driveway

001-11240-000

001-11232-000

0 150 300 Feet

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W E
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Map 38 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_Appendix\B_Project_Route_Maps.mxd

Date: 10/27/2022

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-11269-000

001-11269-001

001-11259-000

001-11288-000

001-11270-000

Madison 8570

Highway 23

29.6 29.5 29.4 29.3 29.2 29.1 29 28.9

0 150 300 Feet

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Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

Delineated Wetland

- PEM
- PFO
- PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)

001-11288-001

30.2

S125

30.1

30

29.9

001-11288-000

29.8

S124

29.7

S123

29.6

29.5

001-11269-000

001-11270-000

29.4

29.3

001-11269-001

0 150 300 Feet

N W E S

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Map 41 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond

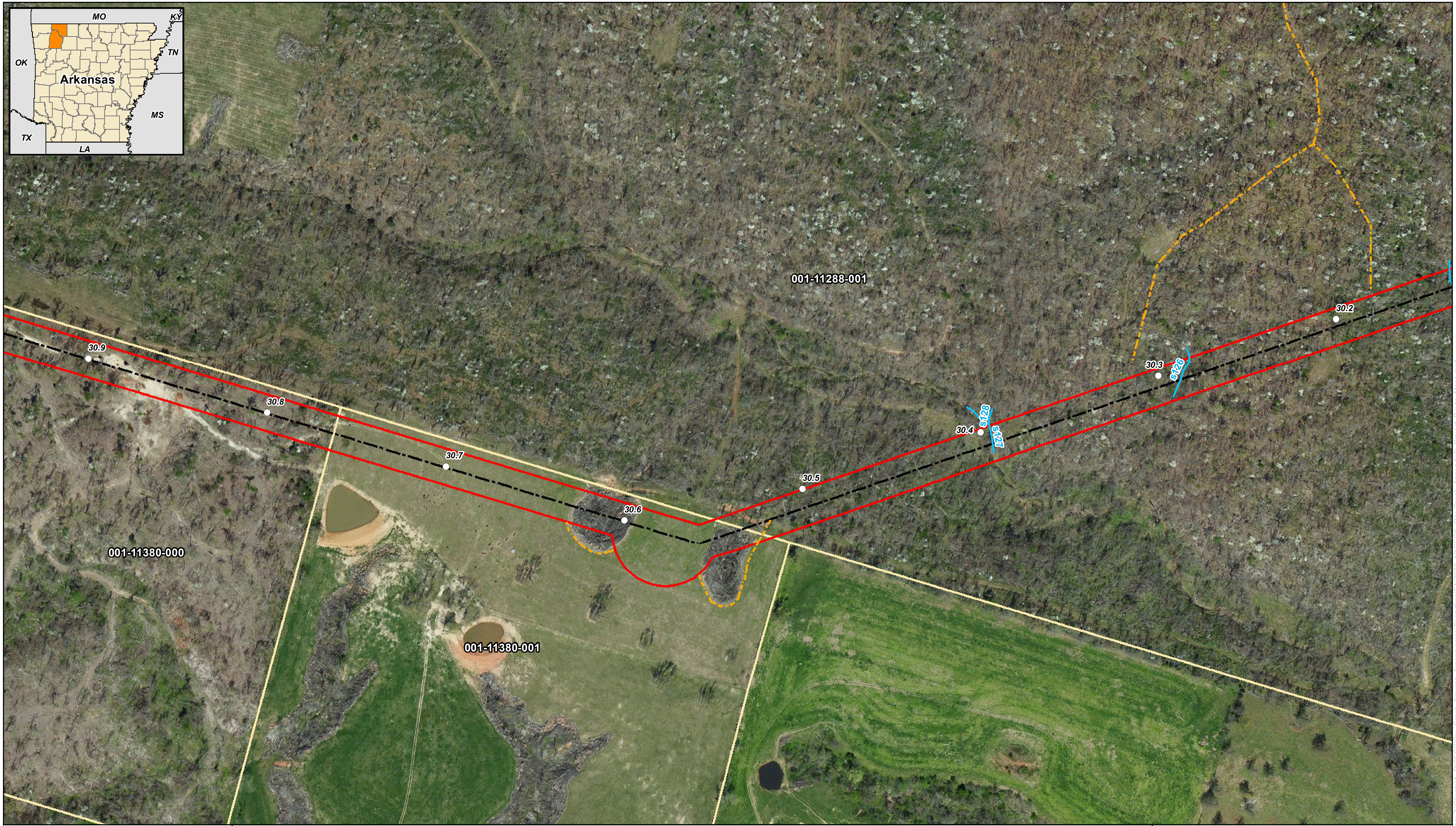
Delineated Wetland

- PEM
- PFO
- PSS

- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: (10/27/2022)



0 150 300 Feet

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Map 42 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

003-11355-000

31.3

31.4

31.2

31.1

31

30.9

001-11288-001

Madison 8620

001-11380-000

001-11380-000

30.8

001-11380-001

30.7

0 150 300 Feet

N NE E SE S SW W NW

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Map 43 of 43

Appendix A
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation
Project Route Maps
Carroll and Madison Counties, Arkansas

- Milepost
- Wetland Data Point
- Delineated Waterbody
- Delineated Pond
- Delineated Wetland
  - PEM
  - PFO
  - PSS
- Access Road
- Centerline
- Survey Corridor
- Parcel Boundary
- County Boundary

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\EA\2022_10\CECC_Dry_Creek_AppendixB_Project_Route_Maps.mxd

Date: 11/27/2022

Appendix B

Agency Correspondence

U.S. Fish and Wildlife Service Correspondence

- **January 17, 2023 No Jeopardy Determination correspondence from Steven Cummings (Carroll Electric Cooperative Corporation) to Thomas Inebit (USFWS)**
- **January 12, 2023 consultation email from Thomas Inebit (USFWS) to Steven Cummings (Carroll Electric Cooperative Corporation)**
- **December 1, 2022 Updated Species List from USFWS**
- **November 21, 2022 consultation email from Thomas Inebit (USFWS) to Steven Cummings (Carroll Electric Cooperative Corporation)**
- **February 11, 2022 consultation letter from Thomas Inebnit (USFWS) to Kory Armstrong (Merjent, Inc.)**
- **February 1, 2022 consultation letter from Kory Armstrong (Merjent, Inc.) to Thomas Inebnit (USFWS)**
- **August 25, 2021 IPaC Record Locator: 137-105079135 USFWS response to IPaC/DKey submittal from Kory Armstrong (Merjent, Inc.)**
- **May 18, 2021 consultation letter from USFWS regarding a list of potential threatened and endangered species in the Project location**

Steven Cummings

From: Steven Cummings
Sent: Tuesday, January 17, 2023 8:26 AM
To: 'Inebnit, Thomas'
Cc: Jeff Smalley
Subject: RE: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

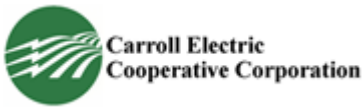
Good morning Tommy,

Carroll Electric Cooperative Corporation has made a “no jeopardy” determination for this project. Although this project “may affect” the tri-colored bat, with our proposed tree-clearing to be conducted during the bat off-season, it is “not going to jeopardize the existence of this species”.

Please let me know if you have any concerns with our determination.

Thank you,

Steven Cummings, P.E.
Staff Engineer
Carroll Electric Cooperative Corporation
P.O. Box 4000, Berryville, AR 72616
(870) 423-2161 ext. 1406
scummings@carrollecc.com



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From: Inebnit, Thomas <thomas_inebnit@fws.gov>
Sent: Thursday, January 12, 2023 10:02 AM
To: Steven Cummings <SCummings@carrollecc.com>
Cc: Jeff Smalley <JSmalley@carrollecc.com>
Subject: Re: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

*** EXTERNAL EMAIL MESSAGE ***
Yes, a NLAA would still be appropriate for any project we've already consulted on. I would recommend seeking technical assistance for any new projects just to make sure.

Also, now that the tricolored bat is "proposed", keep in mind that a "no jeopardy" determination is supposed to be made for any project that "may affect" this species. This is a simple process of having an email, memo, etc., stating that the proposed activities are "not going to jeopardize the existence of the species". This just needs to be somewhere in your administrative record. That's it. The final listing rule for the tricolored bat is expected this fall.

Tommy Inebnit
Senior Fish and Wildlife Biologist
Conservation Planning

Steven Cummings

From: Inebnit, Thomas <thomas_inebnit@fws.gov>
Sent: Thursday, January 12, 2023 10:02 AM
To: Steven Cummings
Cc: Jeff Smalley
Subject: Re: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

*** EXTERNAL EMAIL MESSAGE ***
Yes, a NLAA would still be appropriate for any project we've already consulted on. I would recommend seeking technical assistance for any new projects just to make sure.

Also, now that the tricolored bat is "proposed", keep in mind that a "no jeopardy" determination is supposed to be made for any project that "may affect" this species. This is a simple process of having an email, memo, etc., stating that the proposed activities are "not going to jeopardize the existence of the species". This just needs to be somewhere in your administrative record. That's it. The final listing rule for the tricolored bat is expected this fall.

Tommy Inebnit
Senior Fish and Wildlife Biologist
Conservation Planning

U.S. Fish and Wildlife Service
Arkansas Ecological Services Field Office
110 S Amity Rd, Ste 300
Conway, AR 72032

From: Steven Cummings <SCummings@carrollecc.com>
Sent: Thursday, January 12, 2023 9:12 AM
To: Inebnit, Thomas <thomas_inebnit@fws.gov>
Cc: Jeff Smalley <JSmalley@carrollecc.com>
Subject: RE: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

Good morning Tommy,

CECC is seeking confirmation that its NLAA determinations will not be affected by the upcoming NLEB status change from a threatened species to an endangered species (January 30, 2023) and would still be applicable to the NLEB. With our tree clearing occurring in the bat off-season, would the U.S. Fish & Wildlife still concur with our NLAA determination once the NLEB becomes an endangered species?

Thanks,

Steven Cummings, P.E.
Staff Engineer
Carroll Electric Cooperative Corporation
P.O. Box 4000, Berryville, AR 72616
(870) 423-2161 ext. 1406
scummings@carrollecc.com

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
Phone: (501) 513-4470 Fax: (501) 513-4480

In Reply Refer To: December 01, 2022
Project Code: 2023-0020526
Project Name: Dry Creek to Smyrna Transmission Line Project

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

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

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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

Attachment(s):

- Official Species List

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:

Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
(501) 513-4470

Project Summary

Project Code: 2023-0020526
Project Name: Dry Creek to Smyrna Transmission Line Project
Project Type: Transmission Line - New Constr - Above Ground
Project Description: Transmission Line
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.2200549,-93.44443688883953,14z

Counties: Carroll and Madison counties, Arkansas

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*	Threatened
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	
Piping Plover *Charadrius melodus*	Threatened
Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	
Red Knot *Calidris canutus rufa*	Threatened
There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	

Clams

NAME	STATUS
Rabbitsfoot *Quadrula cylindrica cylindrica*	Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5165	
Snuffbox Mussel *Epioblasma triquetra*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4135	

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	

Flowering Plants

NAME	STATUS
Missouri Bladderpod *Physaria filiformis*	Threatened
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5361	

Critical habitats

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

IPaC User Contact Information

Agency: Rural Development
Name: Jeff Mackenthun
Address: 1 Main Street SE, Suite 300
Address Line 2: Suite 300
City: Minneapolis
State: MN
Zip: 55414
Email jeff.mackenthun@merjent.com
Phone: 6128104795

Lead Agency Contact Information

Lead Agency: Rural Utilities Service

Jeff Mackenthun

To: Steven Cummings
Subject: RE: EXTERNAL: FW: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

---

From: Inebnit, Thomas <thomas_inebnit@fws.gov>
Sent: Monday, November 21, 2022 8:11 AM
To: Steven Cummings <SCummings@carrollecc.com>
Cc: Jeff Smalley <JSmalley@carrollecc.com>
Subject: Re: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

*** EXTERNAL EMAIL MESSAGE ***
Steven,
Thanks for notifying our office of these effects determinations for the Smyrna project. Our office concurs with these NLAA determinations for NLEB and tricolored bat (proposed). Please print this email chain and keep for your administrative records. Let me know if you need anything else. Thanks

Tommy Inebnit
Senior Fish and Wildlife Biologist
Conservation Planning

U.S. Fish and Wildlife Service
Arkansas Ecological Services Field Office
110 S Amity Rd, Ste 300
Conway, AR 72032

From: Steven Cummings <SCummings@carrollecc.com>
Sent: Friday, November 18, 2022 10:11 AM
To: Inebnit, Thomas <thomas_inebnit@fws.gov>
Cc: Jeff Smalley <JSmalley@carrollecc.com>
Subject: RE: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

Good morning Tommy,

For the transmission line project between the Dry Creek Switching Station and the Smyrna Transmission-Distribution Substation, tree clearing will occur during the winter season, November 15 – March 31. CECC is aware that this is the inactive bat season and has made the determination that the project "may affect, but is not likely to adversely affect" the Northern long-eared bat and "may affect, but is not likely to adversely affect" the tricolored bat because of the winter season tree clearing schedule.

Please let me know if you have any concerns that this project would lead to any other determination.

Thank you,

Steven Cummings, P.E.
Staff Engineer
Carroll Electric Cooperative Corporation
P.O. Box 4000, Berryville, AR 72616
(870) 423-2161 ext. 1406

scummings@carrollecc.com

Carroll Electric Cooperative Corporation

Reliable | Affordable | Locale

From: Inebnit, Thomas <thomas_inebnit@fws.gov>
Sent: Thursday, November 17, 2022 2:38 PM
To: Steven Cummings <SCummings@carrollecc.com>
Subject: Fw: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

*** EXTERNAL EMAIL MESSAGE ***

Tommy Inebnit
Senior Fish and Wildlife Biologist
Conservation Planning

U.S. Fish and Wildlife Service
Arkansas Ecological Services Field Office
110 S Amity Rd, Ste 300
Conway, AR 72032

From: Kory Armstrong <kory.armstrong@merjent.com>
Sent: Tuesday, February 1, 2022 1:12 PM
To: Inebnit, Thomas <thomas_inebnit@fws.gov>
Cc: Jeff Smalley <JSmalley@carrollecc.com>; Jeff Mackenthun <jeff.mackenthun@merjent.com>
Subject: [EXTERNAL] CECC Dry Creek to Smyrna Transmission Line Project

Good afternoon Tommy,

Attached is the consultation letter for the CECC Dry Creek to Smyrna Transmission Line project. Please let me know if you if have any questions or comments. Thanks again for your help.

Kory

Kory Armstrong
Atlanta, Georgia
417-827-4231 mobile
kory.armstrong@merjent.com

merjent.

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Minneapolis, MN 55414
612.746.3660 main
www.merjent.com

IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE
110 S. Amity Road, Suite 300
Conway, Arkansas 72032
Tel.: 501/513-4470 Fax: 501/513-4480

February 11, 2022

Kory Armstrong
Merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414

Dear Mr. Armstrong:

The U.S. Fish and Wildlife Service (Service) reviewed your letter dated February 1, 2022, and the IPaC Record Locator (137-105079135) concerning the proposed construction of the Carroll Electric Cooperative Corporation's Dry Creek to Smyrna Transmission Line Project in Carroll and Madison counties, Arkansas. Our comments are submitted in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.).

The Service concurs with your "may affect, but not likely to adversely affect" determination for the Indiana bat (*Myotis sodalis*), Gray bat (*Myotis grisescens*), and Ozark Big-eared bat (*Corynorhinus townsendii ingens*) based on the conservation measures described in your letter dated February 1, 2022. Consultation has been completed for all other species that may occur in your project area via IPaC.

We appreciate your interest in the conservation of endangered species. If you have any questions, please contact the Arkansas Ecological Services Staff at (501) 513-4483.

Sincerely,

For Melvin Tobin
Project Leader

From:	Kory Armstrong
To:	Inebnit, Thomas
Cc:	Jeff Smalley; Jeff Mackenthun
Subject:	CECC Dry Creek to Smyrna Transmission Line Project
Date:	Tuesday, February 1, 2022 1:12:40 PM
Attachments:	CECC_Dry Creek to Smyrna_Sec 7 Consultation_Final.pdf image001.png

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Good afternoon Tommy,

Attached is the consultation letter for the CECC Dry Creek to Smyrna Transmission Line project. Please let me know if you if have any questions or comments. Thanks again for your help.

Kory

Kory Armstrong
Atlanta, Georgia
417-827-4231 mobile
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February 1, 2022

Mr. Tommy Inebnit
U.S. Fish & Wildlife Service
Arkansas Ecological Services Field Office
110 S. Amity Road, Suite 300
Conway, AR 72032

Re: Carroll Electric Cooperative Corporation - Dry Creek to Smyrna Transmission Line Project
USFWS Endangered Species Act Section 7 Consultation

Mr. Inebnit:

Carroll Electric Cooperative Corporation (CECC) plans to seek financial assistance from the United States Department of Agriculture (USDA), Rural Development, Rural Utilities Service (RUS) under its Electric Program for the development of Dry Creek to Smyrna Transmission Line Project (Project). CECC owns and operates an electric transmission system in the state of Arkansas and is proposing to develop an approximately 31.4-mile transmission line to connect the Smyrna Transmission-Distribution Substation to the Dry Creek Switching Station in Carroll and Madison Counties, Arkansas. The design of the electrical facilities would be CECC's standard insulated 161 kV overhead, three-phase, shielded, transmission line design primarily using H-Frame metal structures within a new 100-foot right-of-way. The Project would resolve several contingencies and increase capacity for the transmission system presently serving customers in the area. The proposed transmission line will be subject to review and approval by the Arkansas Public Service Commission and will require National Environmental Policy Act (NEPA) review by RUS.

Bald Eagles and Raptors

CECC requested known bald eagle nest locations from U.S. Fish & Wildlife Service (USFWS) and Arkansas Natural Heritage Commission (ANHC) on September 15, 2020. Based on available data from both agencies, no known bald eagle nest locations were identified within proximity of the Project. Nesting season for bald eagles and raptors in the Project area is from December 15th to June 30th. As such, clearing activities for the Project will not have adverse impacts on bald eagles and raptors.

Migratory Birds

Based on the USFWS proposed January 7 Rule (*Regulations Governing Take of Migratory Birds;* 86 FR 1134), incidental take is not prohibited under the Migratory Bird Treaty Act (MBTA). However, the January 7 Rule is currently under legal challenges and may be revoked leading to a return to implementing the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent. As a voluntary conservation measure, CECC has committed to conducting clearing activities outside of the migratory bird nesting season (April 15th to August 15th) to avoid/minimize take of migratory birds.

Species and Critical Habitat Considered

CECC conducted a review of the USFWS Information for Planning and Consultation project planning tool (IPaC) and developed a list of species listed as endangered, threatened, proposed, or candidate under the Endangered Species Act of 1973 (ESA) that may occur in the counties crossed by the Project. This review

also sought to identify whether designated critical habitat for federally listed species intersects the Project route.

Designated critical habitat is defined as those areas that are considered crucial for the conservation of a species and that may require special management or protection; this designation is based on the presence of certain primary constituent elements (PCEs) (i.e., those physical and biological features of habitat that are considered essential for the conservation of the species). The proposed Project route does not intersect designated critical habitat units for federally protected species.

Table 1 provides the listed species that may occur in the counties crossed by the Project. For species that may be affected by the Project, an analysis of potential impacts due to the Project and a proposed ESA determination are detailed below and proposed clearing window. As noted above, designated critical habitat is not present within the Project area, and the Project will have no effect on designated critical habitat; as such, it is not discussed further.

On August 25, 2021, Merjent, on behalf of CECC, submitted an effects determination for the Project to the USFWS using the *Consultation on effects of proposed projects to threatened and endangered species in Arkansas* Determination Key (D Key) within the IPaC system. The resulting consistency letter generated by the key (IPaC Record Locator: 137-105079135 dated Aug. 25, 2021; enclosed here) stated that Project activities would have ***no effect*** on piping plovers, eastern black rails, and rufa red knots; as such, these species are not discussed further.

In addition, the consistency letter stated that Project activities ***may affect, but are not likely to adversely affect*** rabbitsfoot, snuffbox, or Missouri bladderpod. The Service concurred with these determinations, and no further consultation is required for these species; as such, they are not discussed further.

Table 1
Federally Listed Species Potentially Present in the Dry Creek to Smyrna Project Area

Scientific Name	Common Name	ESA Status	Effects Determination Under the ESA[1]	Clearing Window
Myotis septentrionalis	Northern long-eared bat	Threatened	May affect, but incidental take is not prohibited	August 1st – May 31st
Myotis sodalis	Indiana bat	Endangered	May affect	November 15th – March 31st
Myotis grisescens	Gray bat	Endangered	May affect	November 15th – March 31st
Corynorhinus townsendii ingens	Ozark big-eared bat	Endangered	May affect	November 15th – March 31st
Charadrius melodus	Piping plover	Threatened	No effect	N/A
Laterallus jamaicensis	Eastern black rail	Threatened	No effect	N/A
Calidris canutus rufa	Rufa red knot	Threatened	No effect	N/A
Quadrula cylindrica cylindrica	Rabbitsfoot	Threatened	May affect, but not likely to adversely affect	N/A
Epioblasma triquetra	Snuffbox	Endangered	May affect, but not likely to adversely affect	N/A
Physaria filiformis	Missouri bladderpod	Threatened	May affect, but not likely to adversely affect	N/A

[1] Effects determinations are based upon completion of the Consultation on effects of proposed projects to threatened and endangered species in Arkansas Determination Key in IPaC and the resulting consistency letter generated by the key (IPaC Record Locator: 137-105079135 dated Aug. 25, 2021).

Northern long-eared bat

The range of the northern long-eared bat stretches across much of the eastern and Midwestern United States. During summer, northern long-eared bats roost singly or in colonies under bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places such as caves and mines. This species is thought to be opportunistic in selecting roosts, utilizing tree species based on the tree's ability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures such as barns and sheds. In winter, northern long-eared bats utilize caves and mines as hibernacula.

On April 1, 2015, the USFWS listed the northern long-eared bat as threatened under the Endangered Species Act and simultaneously published an interim 4(d) rule; the final listing and interim 4(d) rule took effect as of May 4, 2015. On January 14, 2016 the USFWS published the final 4(d) rule identifying prohibitions that focus on protecting the bat's sensitive life stages in areas affected by white-nose syndrome.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging or raising pups in summer habitat. Bats may be injured or killed if occupied trees are cleared during this active window (i.e., April 1 – September 30), and the species may be disturbed during clearing or construction activities due to noise or human presence.

Incidental take of northern long-eared bats is not prohibited under the 4(d) rule for the species provided project activities are not conducted within 0.25 mile of known hibernacula and do not remove known roost trees or trees within 150 feet of known roosts.

CECC conducted surveys to identify suitable northern long-eared bat roosting habitat within an environmental clearance boundary (ECB) associated with the Project. Suitable habitat for northern long-eared bats is present in the Project area, and tree clearing activities will be necessary for Project activities. The Arkansas Ecological Services Field Office (ARFO) has incorporated site-specific information for the NLEB hibernacula and maternity roost tree locations into IPaC. The IPaC review for the Project confirmed the absence of known hibernacula within 0.25 mi and the absence of known roost trees within 150 feet from the Project area.

Merjent, on behalf of CECC, submitted an effects determination for northern long-eared bats to the USFWS using D Key within the IPaC system, per USFWS consultation guidelines for northern long-eared bats. The resulting consistency letter generated by the key stated that the Project may affect northern long-eared bats in a manner consistent with the description of activities addressed by the Service's Programmatic Biological Opinion (PBO) dated January 5, 2016. Any taking that may occur incidental to the Project is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). The letter confirms that the PBO satisfies the ESA Section 7(a)(2) consultation responsibilities relative to northern long-eared bats, and further consultation is not necessary.

Indiana bat

The Indiana bat is a medium-sized (3 to 3.5 inches long and wingspan of 9.5 to 10.5 inches) brown bat found throughout the eastern half of the United States. Winter Indiana bat habitat includes mines and caves where the bats hibernate generally October through March, although bats may arrive as early as late July. They require cool, humid hibernacula with stable temperatures under 50° F but above freezing; very few caves within the range of the species have these conditions. Hibernation is an adaptation for

survival during the cold winter months when prey species are not available. Bats must store energy in the form of fat before hibernating; during the six months of hibernation, this stored fat is the bat's only source of energy.

When active, the Indiana bat roosts in dead trees, dying trees, or live trees with exfoliating bark. During the summer months, most reproductive females occupy roost sites that receive direct sunlight for more than half the day. Roost trees are generally found within canopy gaps in a forest, fence line, or along a wooded edge. Maternity roosts are found in riparian zones, bottomland and floodplain habitats, wooded wetlands, as well as upland communities. Indiana bats forage in semi-open to closed forested habitats, forest edges, and riparian areas. Indiana bats exhibit fidelity to their summer habitats, returning to the same foraging and roosting areas each year.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging or raising pups in summer habitat. Bats may be injured or killed if occupied trees are cleared during this active window (i.e., April 1 – September 30), and the species may be disturbed during clearing or construction activities due to noise or human presence.

Merjent, on behalf of CECC, submitted an effects determination for Indiana bats to the USFWS using the D Key within the IPaC system. The resulting consistency letter stated that the Project may affect Indiana bats, and that further consultation with the ARFO regarding Project impacts to the species was required.

Gray bat

Gray bats are distinguished from other bats by the unicolored fur on their back. In addition, following their molt in July or August, gray bats have dark gray fur which often bleaches to a chestnut brown or russet. The gray bat occupies a limited geographic range in limestone karst areas of the southeastern United States. They are mainly found in Alabama, northern Arkansas, Kentucky, Missouri, and Tennessee. With rare exceptions, gray bats live in caves year-round. Gray bats forage along streams and in wooded riparian areas, usually between 0.6 and 2.5 miles from maternity caves. During the winter gray bats hibernate in deep, vertical caves. In the summer, they roost in caves which are scattered along rivers. These caves are in limestone karst areas. They do not use houses or barns.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging in summer habitat. Removal of foraging habitat may be detrimental to individuals if trees are cleared during the active window (i.e., April 1 – September 30). The species may also be disturbed during clearing or construction activities due to noise, vibration, and/or human presence. Due to the species' habit of living in large numbers in few caves, the gray bat is extremely susceptible to disturbance, particularly in their winter hibernacula. Construction activities conducted near occupied caves in the winter may disturb hibernating bats, causing them to utilize energy stores meant to sustain them until spring. In addition, impacts to karst may cause changes to caves that disrupt temperature, air flow, and humidity, potentially rendering a cave unsuitable for gray bats.

Merjent, on behalf of CECC, submitted an effects determination for gray bats to the USFWS using the D Key within the IPaC system. The resulting consistency letter stated that the Project may affect gray bats, and that further consultation with the ARFO regarding Project impacts to the species was required.

Ozark big-eared bat

Ozark big-eared bats are the largest subspecies of all Townsend's big-eared bats and are distinguished from other bats in the region by their exceptionally long ears (1.2 to 1.5 inches) and large wingspan of

11.6 to 12.8 inches. Their ears are connected at the base forming a V shape on the forehead. Ozark big-eared bats are similar to only one other species in Arkansas, Rafinesque's big-eared bat which has similar ear structure. However, OBEB have cream or tan fur on the stomach compared to the white stomach of a Rafinesque big-eared bat.

Ozark big-eared bats have the smallest range of any bat species in the United States being restricted to the Ozark region but only found within four counties in Arkansas: Washington, Crawford, Franklin, and Marion. The species is non-migratory and are cave obligate. They are not known to occupy trees but have been documented in manmade structures during the summer maternity season.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging in summer habitat. Removal of foraging habitat may be detrimental to individuals if trees are cleared during the active window (i.e., April 1 – September 30). Construction activities conducted near direct proximity occupied caves in the winter may disturb hibernating bats, causing them to utilize energy stores meant to sustain them until spring. In addition, impacts to karst may cause changes of the microclimate to caves that disrupt temperature, air flow, and humidity, potentially rendering a cave unsuitable for Ozark big-eared bats.

Merjent, on behalf of CECC, submitted an effects determination for Ozark big-eared bats to the USFWS using the D Key within the IPaC system. The resulting consistency letter stated that the Project may affect gray bats, and that further consultation with the ARFO regarding Project impacts to the species was required.

Summary

Merjent, on behalf of CECC, consulted with the USFWS to avoid/minimize direct impacts to Indiana bat, gray bat, and Ozark big-eared bat. CECC has committed to offseason clearing (November 15 to March 31) for the Project. USFWS has attempted to contact landowners to independently access caves near the Project to determine if the caves are occupied by any of the target species. No additional information of occupancy is available at this time. However, clearing activities are not anticipated within 100 feet of the identified cave openings. If clearing is necessary within 100 feet of cave openings, CECC will commit to condensed clearing schedule within a 100 foot buffer of the opening and limit clearing activities between December 1 and February 15. With these conservation measures in place, we believe Project activities ***may affect***, ***but are not likely to adversely affect*** the Indiana bat, gray bat, and Ozark big-eared bat. Based on the implementation of these measures we request confirmation from the USFWS regarding these determinations.

Please contact me at (417) 827-4231 or kory.armstrong@merjent.com with any questions you may have.

Respectfully submitted,

Kory Armstrong
Merjent, Inc.

Enclosures: USFWS Consistency letter generated by the key (IPaC Record Locator: 137-105079135 dated Aug. 25, 2021

cc: Jeff Mackenthun, Merjent. Inc.
Andrea Sampson, Merjent, Inc.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arkansas Ecological Services Field Office
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Conway, AR 72032-8975
Phone: (501) 513-4470 Fax: (501) 513-4480
http://www.fws.gov/arkansas-es

IPaC Record Locator: 137-105079135 August 25, 2021

Subject: Consistency letter for 'Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the Arkansas Determination Key for project review and guidance for federally listed species (Arkansas Dkey).

Dear Kory Armstrong:

The U.S. Fish and Wildlife Service (Service) received on **August 25, 2021** your effect determination(s) for the 'Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811' (the Action) using the Arkansas DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance in the Service's Arkansas DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*)	Threatened	No effect
Gray Bat (*Myotis grisescens*)	Endangered	May affect
Indiana Bat (*Myotis sodalis*)	Endangered	May affect
Missouri Bladderpod (*Physaria filiformis*)	Threatened	NLAA
Northern Long-eared Bat (*Myotis septentrionalis*)	Threatened	May affect
Ozark Big-eared Bat (*Corynorhinus (=Plecotus) townsendii ingens*)	Endangered	May affect
Piping Plover (*Charadrius melodus*)	Threatened	No effect
Rabbitsfoot (*Quadrula cylindrica cylindrica*)	Threatened	NLAA
Red Knot (*Calidris canutus rufa*)	Threatened	No effect
Snuffbox Mussel (*Epioblasma triquetra*)	Endangered	NLAA

Status

Consultation with the Service is not complete. Further consultation or coordination with the Arkansas Ecological Services Office is necessary for those species with a determination of "may affect" (MA) listed above. Please contact our office at 501-513-4470, arkansas_es_clearance@fws.gov, or your agency point of contact in the Arkansas Ecological Services Office to discuss methods to avoid or minimize potential adverse effects to those species.

The Service concurs with the NLAA determination(s) for the species listed above. Your agency has met consultation requirements by informing the Service of the "No Effect" determinations. No further consultation for this project is required for these species. This letter confirms you may rely on effect determinations provided in the Arkansas Determination Key for project review and guidance for federally listed species to satisfy agency consultation requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

The proposed project may affect the Northern Long-eared Bat. However, this project complies with the final 4(d) rule with incidental take covered by the U.S. Fish and Wildlife Service's January 5, 2016, Intra-Service Programmatic Biological Opinion on the final 4(d) rule for the NLEB addressing "Activities Excepted from Take Prohibitions. No further consultation is required for the proposed project for this species.

The Service recommends that your agency contact the Arkansas Ecological Services Field Office or re-evaluate this key in IPaC if: 1) the scope, timing, duration, or location of the proposed project changes, 2) new information reveals the action may affect listed species or designated critical habitat; 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Arkansas Ecological Services Field Office should take place before project changes are final or resources committed.

Bald and Golden Eagle Protection Act: The following resources are provided to project proponents and consulting agencies as additional information. Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service.

The Service developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with Bald Eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest. This document may be downloaded from the following site: https://www.fws.gov/southeast/our-services/permits/eagles/

To determine if your proposed activity is likely to take or disturb Bald Eagles, complete our step-by-step online self-certification process, which is located at https://www.fws.gov/southeast/our-services/eagle-technical-assistance/.

If the recommendations detailed in the National Bald Eagle Management Guidelines cannot be followed, you may apply for a permit to authorize removal or relocation of an eagle nest in certain instances. The application form is located at http://www.fws.gov/forms/3-200-72.pdf.

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

1. Name

Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811

2. Description

The following description was provided for the project 'Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811':

> Carroll Electric Cooperative Corporation (CECC) plans to seek financial assistance from the United States Department of Agriculture, Rural Development, Rural Utilities Service (RUS) under its Electric Program for the development of Dry Creek to Smyrna Transmission Line Project (Project). CECC owns and operates an electric transmission system in the state of Arkansas and is proposing to develop an approximately 30.5-mile transmission line to connect the Smyrna Transmission-Distribution Substation to the Dry Creek Switching Station in Carroll and Madison Counties, Arkansas. The design of the electrical facilities would be CECC's standard insulated 161 kV overhead, three-phase, shielded, transmission line design primarily using H-Frame metal structures within a new 100-foot right-of-way. The Project would resolve several contingencies and increase capacity for the transmission system presently serving customers in the area. The proposed transmission line will be subject to review and approval by the Arkansas Public Service Commission and will require National Environmental Policy Act review by RUS.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.2923185,-93.41775420141187,14z

Species Protection Measures
Streambank Stabilization
https://www.fws.gov/southeast/pdf/species-protective-measures/streambank-stabilization-projects.pdf

Pipeline and Linear Projects
https://www.fws.gov/southeast/pdf/species-protective-measures/pipeline-and-linear-projects.pdf

Qualification Interview

1. Have you made an effects determination of "no effect" for all species in the area of the project? A "no effect" determination means the project will have no beneficial effect, no short-term adverse effects, and no long-term adverse effects on any of the species on the IPaC-generated species list for the proposed project or those species habitat. A project with effects that cannot be meaningfully measured, detected or evaluated, effects that are extremely unlikely to occur, or entirely beneficial effects should not have a "no effect" determination. (If unsure, select "No").

   No

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

   Yes

3. Are you the the action agency or the designated non-federal representative?

   No

4. Choose the agency you represent in this consultation with the U.S. Fish and Wildlife Service:

   f. All other federal agencies or agency designees

5. [Semantic] Does the project intersect designated critical habitat for the Leopard Darter?

   Automatically answered
   No

6. [Semantic] Does the project intersect designated critical habitat for the Neosho Mucket?

   Automatically answered
   No

7. [Semantic] Does the project intersect designated critical habitat for Yellowcheek Darter?

   Automatically answered
   No

8. [Semantic] Does the project intersect designated critical habitat for Rabbitsfoot?

   Automatically answered
   No

9. [Semantic] Does the project intersect the American burying beetle consultation area?

   Automatically answered
   No

10. [Semantic] Does the project intersect the red-cockaded woodpecker AOI?

    Automatically answered
    No

11. [Semantic] Does the project intersect the Eastern black rail AOI?

    Automatically answered
    Yes

12. Will the project affect sand and gravel areas or shorelines along rivers, lakes, or reservoirs?

    No

13. Does the project take place in marshy or flooded open field habitat?

    No

14. [Semantic] Does the project intersect the red knot AOI?

    Automatically answered
    Yes

15. [Semantic (same answer as "8.1.3"] Will the project affect sand and gravel areas or shorelines along rivers, lakes, or reservoirs?

    Automatically answered
    No

16. [Semantic (same answer as "8.2"] Does the project take place in marshy or flooded open field habitat?

    Automatically answered
    No

17. [Semantic] Does the project intersect the Piping Plover AOI?

    Automatically answered
    Yes

18. [Semantic (same answer as "8.1.3 or 9.3"] Will the project affect sand and gravel areas or shorelines along rivers, lakes, or reservoirs?

    Automatically answered
    No

19. [Semantic] Does the project intersect the Whooping Crane AOI?

    Automatically answered
    No

20. [Semantic] Does the project intersect the interior least tern AOI?

    Automatically answered
    No

21. [Semantic] Does the project intersect the Gray Bat AOI?

    Automatically answered
    Yes

22. Are there any caves within 0.5 mile of the project area?

    Yes

23. [Semantic] Does the project intersect the Ozark Big-eared Bat AOI?

    Automatically answered
    Yes

24. [Sematic (same answer as question "13.2")] Is there a cave known on the site or within 0.5 mile of the project area?

    Automatically answered
    Yes

25. [Semantic] Does the project intersect the Indiana bat AOI?

    Automatically answered
    Yes

26. [Sematic (same answer as question "13.2" or "14.4")] Are there any caves within 0.5 mile of the project area?

    Automatically answered
    Yes

27. [Semantic] Does the project intersect the Northern Long-eared bat AOI?

    Automatically answered
    Yes

28. Have you determined that the proposed action will have “no effect” on the northern long-eared bat? (If you are unsure select "No")

    No

29. Will your activity purposefully Take northern long-eared bats?

    No

30. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?
    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency (Semantic: Edge In Answer Path)

    Automatically answered
    No

31. Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?
    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency (Semantic: Edge In Answer Path)

    Automatically answered
    No

32. [Semantic] Does the project intersect the Benton County Cave Crayfish AOI?

    Automatically answered
    No

33. [Semantic] Does the project intersect the Hell Creek Cave Crayfish AOI?

    Automatically answered
    No

34. [Semantic] Does the project intersect the Ozark cavefish AOI?

    Automatically answered
    No

35. [Semantic] Does the project intersect the Missouri bladderpod AOI?

    Automatically answered
    Yes

36. Is the proposed project in or near an open glade (an area with thin, poor soil and bedrock close to the surface or in rocky outcrops) or in shale barrens (Ouachita Mountains ecoregion)?

    Yes

37. Will project proponents implement Species Protective Measures for Missouri Bladderpod?

    Yes

38. [Semantic] Does the project intersect the Geocarpon AOI?

    Automatically answered
    No

39. [Semantic] Does the project intersect the running buffalo clover AOI?

    Automatically answered
    No

40. [Semantic] Does the project intersect the Pondberry AOI?

    Automatically answered
    No

41. [Semantic] Does the project occur within the survey coordination area?

    Automatically answered
    Yes

42. This project intersects a waterbody where listed aquatic species may occur. Have you contacted the Arkansas Ecological Services Office to determine if a fish, mussel, or amphibian species survey or suitable habitat survey is recommended for this project?

    Yes

43. Was a species survey recommended by the Arkansas ES Field Office?

    No

44. Does the project contain any of the following activity types:
    Boat Ramps,
    Bridges,
    Culverts,
    Development,
    Dams or Impoundments (including berms and levees),
    Streambank Stabilization (or other streambank work),
    Pipeline and linear projects,
    Water intakes/withdrawls, or
    Stream or ditch relocation?

    Yes

45. Does the project include Streambank Stabilization (or other streambank work)?

    Yes

46. Does the project include the Streambank Stabilization species protective measures, as applicable to the project and site characteristics?

    Yes

47. Does the project include Boat Ramps?

    No

48. Does the project include Bridges and Culverts?

    No

49. Does the project include Dams and Impoundments (including berms or levees)?

    No

50. Does the project include Development?

    No

51. Is the project a Pipeline or Linear Project?

    Yes

52. Does the project include the Pipeline and Linear Projects species species protective measures, as applicable to the project and site characteristics?

    Yes

53. Does the project include Water Intakes/Withdrawals?

    No

54. Does the project include Stream or Ditch Relocation?

    No

55. [Semantic] Does the project intersect the rabbitsfoot AOI?

    Automatically answered
    Yes

56. [Semantic] Does the project instersect the neosho mucket AOI?

    Automatically answered
    No

57. [Semantic] Does the project instersect the Spectaclecase AOI?

    Automatically answered
    No

58. [Semantic] Does the project instersect the snuffbox AOI?

    Automatically answered
    Yes

59. [Semantic] Does the project instersect the speckled pocketbook AOI?

    Automatically answered
    No

60. [Semantic] Does the project instersect the ouachita rock pocketbook AOI?

    Automatically answered
    No

61. [Semantic] Does the project instersect the fat pocketbook AOI?

    Automatically answered
    No

62. [Semantic] Does the project instersect the Curtis pearlymussel AOI?

    Automatically answered
    No

63. [Semantic] Does the project instersect the scaleshell AOI?

    Automatically answered
    No

64. [Semantic] Does the project instersect the pink mucket AOI?

    Automatically answered
    No

65. [Semantic] Does the project instersect the Arkansas fatmucket AOI?

    Automatically answered
    No

66. [Semantic] Does the project instersect the winged mapleleaf AOI?

    Automatically answered
    No

67. [Semantic] Does the project instersect the leopard darter AOI?

    Automatically answered
    No

68. [Semantic] Does the project instersect the Yellowcheek darter AOI?

    Automatically answered
    No

69. [Semantic] Does the project instersect the Ozark hellbender AOI?

    Automatically answered
    No

70. [Semantic] Does the project instersect the harperella AOI?

    Automatically answered
    No

71. [Semantic] Does the project instersect the pallid sturgeon AOI?

    Automatically answered
    No

Project Questionnaire

1. **If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.**
   1. Estimated total acres of forest conversion:

   0
2. 2. If known, estimated acres of forest conversion from April 1 to October 31

   0
3. 3. If known, estimated acres of forest conversion from June 1 to July 31

   0
4. **If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.**
   4. Estimated total acres of timber harvest

   00
5. 5. If known, estimated acres of timber harvest from April 1 to October 31

   0
6. 6. If known, estimated acres of timber harvest from June 1 to July 31

   0
7. **If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.**
   7. Estimated total acres of prescribed fire

   0
8. 8. If known, estimated acres of prescribed fire from April 1 to October 31

   0
9. 9. If known, estimated acres of prescribed fire from June 1 to July 31

   0
10. **If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.**
    10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

    0

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
Phone: (501) 513-4470 Fax: (501) 513-4480
http://www.fws.gov/arkansas-es

In Reply Refer To: May 18, 2021
Consultation Code: 04ER1000-2021-SLI-1023
Event Code: 04ER1000-2021-E-02870
Project Name: Dry Creek to Smyrna Transmission Line Project

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 endangered, threatened, 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.*). **This letter only provides an official species list and technical assistance; if you determine that listed species and/or designated critical habitat may be affected in any way by the proposed project, even if the effect is wholly beneficial, consultation with the Service will be necessary.**

If you determine that this project will have no effect on listed species and their habitat in any way, then you have completed Section 7 consultation with the Service and may use this letter in your project file or application.

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. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found on our website.

Please visit our website at http://www.fws.gov/arkansas-es/IPaC/home.html for species-specific guidance to avoid and minimize adverse effects to federally endangered, threatened, proposed, and candidate species. Our web site also contains additional information on species life history and habitat requirements that may be useful in project planning.

If your project involves in-stream construction activities, oil and natural gas infrastructure, road construction, transmission lines, or communication towers, please review our project specific guidance at http://www.fws.gov/arkansas-es/IPaC/ProjSpec.html.

The karst region of Arkansas is a unique region that covers the **northern third of Arkansas** and we have specific guidance to conserve sensitive cave-obligate and bat species. **Please visit http://www.fws.gov/arkansas-es/IPaC/Karst.html to determine if your project occurs in the karst region and to view karst specific-guidance.** Proper implementation and maintenance of best management practices specified in these guidance documents is necessary to avoid adverse effects to federally protected species and often avoids the more lengthy formal consultation process.

If your species list includes any mussels, Northern Long-eared Bat, Indiana Bat, Yellowcheek Darter, Red-cockaded Woodpecker, or American Burying Beetle, your project may require a presence/absence and/or habitat survey prior to commencing project activities. Please check the appropriate species-specific guidance on our website to determine if your project requires a survey. We strongly recommend that you contact the appropriate staff species lead biologist (see office directory or species page) prior to conducting presence/absence surveys to ensure the appropriate level of effort and methodology.

Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make “no effect” determinations. If you determine that your proposed action will have “no effect” on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

Through the consultation process, we will analyze information contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take “after-the-fact.” For more information regarding formal consultation and HCPs, please see the Service’s Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

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.

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.**

Attachment(s):

- Official Species List

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:

Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
(501) 513-4470

Project Summary

Consultation Code: 04ER1000-2021-SLI-1023
Event Code: 04ER1000-2021-E-02870
Project Name: Dry Creek to Smyrna Transmission Line Project
Project Type: TRANSMISSION LINE
Project Description: Carroll Electric Cooperative Corporation (CECC) owns and operates an electrical transmission system in the state of Arkansas. CECC is planning to build the Dry Creek to Smyrna Transmission Line Project (Project) - an approximate 30.5-mile transmission line to connect the Smyrna Transmission/Distribution Substation to the Dry Creek Switching Station in northern Arkansas. The purpose of the Project is to resolve several contingencies and increase capacity for the system presently serving customers in the area. The proposed transmission line will be subject to review and approval by the Arkansas Public Service Commission (ARPSC) and will require National Environmental Policy Act (NEPA) review by the Rural Utilities Service (RUS).

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.220119750000066,-93.43137458002559,14z

Counties: Carroll and Madison counties, Arkansas

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 Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* 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/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10477

Piping Plover *Charadrius melodus*	Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.
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/6039

Red Knot *Calidris canutus rufa*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1864

Clams

NAME	STATUS
Rabbitsfoot *Quadrula cylindrica cylindrica*	Threatened

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/5165

Flowering Plants

NAME	STATUS
Missouri Bladderpod *Physaria filiformis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5361

Critical habitats

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

Arkansas Historic Preservation Program Correspondence

- **October 28, 2021 consultation letter from Jessica H. Cogburn (AHPP) to Jeff Smalley (CECC) regarding concurrence with Phase I Survey (#108765)**
- **January 31, 2022 consultation letter from Jessica H. Cogburn (AHPP) to Jeff Smalley (CECC) regarding concurrence with Phase I Survey (#108765.01)**
- **August 23, 2022 consultation letter from Jessica H. Cogburn (AHPP) to Jeff Smalley (CECC) regarding concurrence with Phase I/II Survey (#108765.03)**
- **October 27, 2022 consultation letter from George Burson (AHPP) to Jeff Smalley (CECC) regarding concurrence with Architectural Evaluation (#108765.04)**

Asa Hutchinson
Governor
Stacy Hurst
Secretary

October 28, 2021

Mr. Jeff Smalley
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
PO Box 4000
Berryville, AR 72616

RE: Carroll and Madison Counties: General
Section 106 Review: USDA-RUS
Proposed Undertaking: Dry Creek to Smyrna Transmission Line Project
Cultural Resources Survey Report: *Phase I Archaeological Resources Investigation of the Dry Creek-Smyrna Transmission Project: Carroll and Madison Counties, Arkansas*
AHPP Tracking Number: 108765

Dear Mr. Smalley:

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the cultural resources survey report for the above-referenced undertaking in Carroll and Madison Counties, Arkansas. The proposed undertaking entails the development of an approximately 30.5-mile transmission line between the Smyrna Transmission-Distribution Substation and the Dry Creek Switching Station. The area of the proposed undertaking has seen an increase in the use of energy and this project would provide additional infrastructure to meet the growing need.

A phase I cultural resources survey was conducted by Merjent, Inc. archeologists of 391.52 acres within the area of potential effect (APE). The survey consisted of shovel testing where landowner access was granted in the project area. A total of 25 new archeological sites were recorded. 16.93 acres remain unsurveyed due to landowners not allowing access. If access is granted, it is recommended that these areas be surveyed as well.

A total of 468 shovel tests were excavated across the APE where ground conditions allowed. 16 historic sites, 8 precontact sites and 1 multi-component site were discovered.

Based on the provided information, we concur that sites 3CR0380, 3CR0381, 3CR0382, 3CR0384, 3CR0385, 3CR0386, 3CR0387, 3CR0388, 3MA0482, 3MA0484, 3MA0485, 3MA0486, 3CR0394, 3MA0487 and 3CR0395 are not eligible for the National Register of Historic Places (NRHP). We concur that sites 3CR0086, 3CR0383, 3CR0389, 3MA0483, 3CR0390, 3CR0393, 3MA0165 and 3CR0396 are considered undetermined for inclusion in the NRHP and that Phase II Investigations are recommended prior to implementation of the proposed undertaking to determine the NRHP status of the sites. We also concur that sites 3CR0391 and 3CR0392 are undetermined for inclusion in the NRHP but are located outside of the APE and therefore no further archeological investigation is needed.

Tribes that have expressed an interest in the area include the Cherokee Nation, the Delaware Nation, the Osage Nation, and the Shawnee Tribe. We recommend consultation in accordance with 36 CFR § 800.2(c)(2).

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, call Jessica Cogburn at 501-324-9357 or email jessica.cogburn@arkansas.gov.

Sincerely,

for
Scott Kaufman
Director, AHPP

cc: Dr. Melissa Zabecki, Arkansas Archeological Survey

Asa Hutchinson
Governor
Stacy Hurst
Secretary

January 31, 2022

Mr. Jeff Smalley
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
P.O. Box 4000
Berryville, Arkansas 72616

Re: Carroll and Madison County: General
Section 106 Review: USDA-RUS
Proposed Undertaking – Dry Creek to Smyrna Transmission Line Project
Cultural Resources Survey Report: *Phase I Archaeological Resources Investigation of 38 Access Roads and 6.98 Acres of the Dry Creek – Smyrna Transmission Line Project*
AHPP Tracking Number: 108765.01

Dear Mr. Smalley:

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the cultural resources survey report for the above-referenced undertaking in in Carroll and Madison counties, Arkansas. The proposed undertaking entails the development of an approximately 30.5-mile transmission line between the Smyrna Transmission-Distribution Substation and the Dry Creek Switching Station. Merjent, Inc. conducted an initial Phase I report, which the AHPP concurred with, of 391.52 acres, leaving 16.93 unsurveyed due to landowners not allowing access.

Access to four parcels (001-03815-003, 001-10638-000, 001-11247-000, and 001-11256-000) was later granted. Merjent conducted an additional Phase I Investigation on these properties, along with thirty-eight access roads, totaling at 26.95 acres surveyed. No new archeological sites were documented. One structure was located on Parcel 001-10638-000 (a partially torn down barn); Merjent recommends the structure is not eligible for the National Register of Historic Places (NRHP). The remaining 9.97 acres of the remaining easement are recommended to be surveyed as well, should access be granted.

Site 3MA0165 is located on Parcel 001-11247-000 and will be included in future Phase II eligibility testing report. Fourteen shovel tests were positive between this parcel and the neighboring one (001-11256-00) and the recovered artifacts will be discussed in the Phase II report, to be submitted as a companion report.

Based on the provided information, the AHPP concurs with the finding of **no historic properties affected pursuant to 36 CFR § 800.4(d)(1)** for the proposed undertaking within the APE for the **thirty-eight access roads as well as parcels 001-03815-003 and 001-10638-000** (Section 25, Township 18 North, Range 24 West in Carroll County and Section 18, Township 17, Range 25 West in Madison County, respectively). **Parcels 001-11247-000 and 001-11256-00** (Sections 14-15, Township 17 North, Range 26 West) are **excluded** from this finding due to site 3MA0165's undetermined NRHP eligibility status. Site 3MA0165 will be evaluated for NRHP eligibility upon the AHPP's review of the project's Phase II investigations.

Tribes that have expressed an interest in the area include the Cherokee Nation, the Delaware Nation, the Osage Nation, and the Shawnee Tribe. We recommend consultation in accordance with 36 CFR § 800.2(c)(2).

We appreciate the opportunity to review this undertaking. If you have any questions, please contact Kathryn Bryles of my staff at (501) 324-9784 or kathryn.bryles@arkansas.gov. Please refer to the AHPP Tracking Number above in any correspondence.

Sincerely,

for
Scott Kaufman
Director, AHPP

cc: Dr. Melissa Zabecki, Arkansas Archeological Survey

Asa Hutchinson
Governor
Stacy Hurst
Secretary

August 23, 2022

Mr. Jeff Smalley, P. E.
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
PO Box 4000
Berryville, AR 72616

RE: Carroll and Madison Counties: General
Section 106 Review: USDA-RUS
Project Undertaking: Dry Creek to Smyrna Transmission Line Project
CECC Project Numbers: CWP Projects #810 and #811
Merjent Cultural Resources Survey Report: *Phase II Archaeological Testing at Sites 3CR383, 3CR389, 3CR390, 3CR393, 3CR397, 3MA165, and 3MA483 for the Dry Creek – Smyrna Transmission Line Project, Carroll and Madison Counties, Arkansas*
AHPP Tracking Number: 108765.03

Dear Mr. Smalley:

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the Phase II archeological testing report for sites within the area of potential effect (APE) for the Dry Creek to Smyrna Transmission Line project in Carroll and Madison Counties, Arkansas. The undertaking consists of the construction of a 31.4 mile, 161-kV electric transmission line between the Smyrna Transmission/Distribution Substation in Madison County and the Dry Creek Switching Station in Carroll County. A Phase I cultural resources survey conducted by Merjent, Inc. resulted in the documentation of 23 archeological sites within the APE, 15 of which were recommended as not eligible for inclusion in the National Register of Historic Places (NRHP). The remaining eight sites were subjected to Phase II testing to determine their eligibility for the NRHP.

Six sites (3CR0383, 3CR0389, 3CR0393, 3CR0397, 3MA0165, and 3MA0483) are recommended as undetermined for inclusion in the NRHP. Portions of these sites lie outside the APE and were therefore not tested. The portions that fall within the APE have been thoroughly tested and Merjent believes no additional testing is needed. Sites 3CR0390 and 3CR0396 are both recommended as eligible for inclusion in the NRHP. Merjent recommends that these sites be avoided, and no ground disturbance occur within them. If avoidance is not possible, then limited ground disturbance (low-weight vehicle traffic) within the project workspace is suggested.

Based on the provided information, that AHPP concurs that sites 3CR0383, 3CR0389, 3CR0393, 3CR0397, 3MA0165, and 3MA0483 are undetermined for inclusion in the NRHP, but that there will be no effect to the

portions of the sites within the APE. The AHPP also concurs that sites 3CR0390 and 3CR0396 are eligible for inclusion in the NRHP and should be avoided during construction activities. If this is not possible, the AHPP would like to consult on how to minimize impacts to the sites during construction. If the sites can be avoided, the AHPP concurs that there will be no adverse effect to historic properties pursuant to 36 CFR § 800.5(b)(1) as a result of this undertaking.

Thank you for the opportunity to review this project identification form. If you have any questions, please contact Jessica Cogburn at 501-324-9357 or email jessica.cogburn@arkansas.gov.

Sincerely,

for
Scott Kaufman
Director, AHPP

cc: Dr. Melissa Zabecki, Arkansas Archeological Survey

Asa Hutchinson
Governor
Stacy Hurst
Secretary

October 27, 2022

Jeff Smalley
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
Berryville, AR 72616

Re: Carroll and Madison Counties – General
Section 106 Review – USDA-RUS
Proposed Undertaking – Construction of an approximately 31.4-mile transmission line from Smyrna to Dry Creek, Carroll and Madison Counties, AR
AHPP Tracking Number 108765.04

Dear Mr. Smalley

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the proposed undertaking received September 27, 2022. As described, the undertaking entails the construction of an approximately 31.4-mile transmission line connecting the Smyrna Transmission-Distribution Substation to the Dry Creek Switching Station in Carroll and Madison Counties, Arkansas. This would entail the construction of multiple H-frame metal structures on the path of the transmission line.

In accordance with Section 106, CECC contacted Merjent Inc. (Merjent) to perform an architectural evaluation of the project's APE to evaluate the potential for historic architectural structures to be adversely affected by the construction and operation of the project. As a part of this architectural evaluation, Merjent evaluated the structures within a .5 mile Visual Area of Potential Effect (APE).

Merjent evaluated approximately 59 previously non-surveyed properties within the Visual APE of this undertaking. Out of the structures evaluated, the AHPP considers Structure 247, Structure 154, Structure 30, Structure 174 and Structure 181 to be potentially Eligible for Inclusion on the National Register of Historic Places (NRHP). However, considering the intervening landscape and the size of the H-frame structures, the AHPP will concur with a finding of **no adverse effects pursuant to 36 CFR § 800.5(b)**.

We appreciate the opportunity to review this undertaking. If you have any questions, please contact George Burson at (501) 324-9270 or at George.Burson@arkansas.gov. Please refer to the AHPP Tracking Number above in any correspondence.

Sincerely,

for
Scott Kaufman
Director, AHPP

U.S. Army Corps of Engineers Correspondence

- **November 3, 2022 email correspondence from David Rupe (USACE) to Jeff Smalley (CECC) regarding authorization under Nationwide Permit 57 and Regional Conditions**

- **September 15, 2022 letter from Jeff Smalley (CECC) to David Rupe (USACE) regarding submittal of Pre-Construction Notification Package**

DEPARTMENT OF THE ARMY
LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
POST OFFICE BOX 867
LITTLE ROCK, ARKANSAS 72203-0867
www.swl.usace.army.mil

November 3, 2022

Regulatory Division

NATIONWIDE PERMIT NO. **SWL-2022-00307**

Mr. Jeff Smalley
Carroll Electric Cooperative Corporation
PO Box 4000
Berryville, AR 72616

Dear Mr. Smalley:

Please refer to your application dated September 15, 2022, submitted on your behalf by Merjent, Inc., concerning Department of the Army permit requirements pursuant to Section 404 of the Clean Water Act (33 U.S. Code 1344). You requested authorization for work, including the placement of dredged and fill material, in waters of the United States associated with the Dry Creek to Smyrna Electric Transmission Line Project. A footing for a support structure will be placed within an emergent wetland, resulting in fill that would total less than 0.01 acre. Temporary fill to the emergent wetland, consisting of timber matting for a temporary crossing, will also result during project construction. The temporary matting, totaling approximately 0.06 acre, will be removed following construction. The project is located in wetlands adjacent to a tributary to Dry Creek, in parts of section 22, T. 19 N., R. 23 W., near Green Forest, Carroll County, Arkansas.

The proposed activities are authorized by Department of the Army Nationwide Permit (NWP) No. **57** (copy enclosed), provided that the conditions therein, and the following added special conditions, are met. You should become familiar with the conditions and maintain a copy of the permit at the worksite for ready reference. If changes are proposed in the design or location of the facilities, you should submit revised plans to this office for approval before construction of the change begins.

Section 401 water quality certification has been issued with conditions for the referenced NWP by the Arkansas Department of Energy and Environment, Division of Environmental Quality (copy enclosed). In addition to the specific criteria and conditions of the NWP, you must comply with the conditions specified in the certification as special conditions to this permit.

Special Conditions:

1. If a previously unknown cultural resource site is encountered during work authorized by this permit, the permittee shall immediately contact the Corps and avoid further impact to the site until assessment by State and Federal cultural resource

specialists is complete and the Corps has verified that the requirements of 33 CFR Part 325, Appendix C, and 36 CFR Part 800 have been met. Cultural resource sites include prehistoric and historic archeological sites, and areas or structures of cultural interest that occur in the permit area.

2. The clearing of suitable habitat trees and/or snags (typically greater than 3 inches in diameter at breast height that have exfoliating bark, cracks, crevices, and/or hollows) associated with this project must be conducted between November 15th and March 31st to avoid impacts to threatened or endangered bats identified in the Endangered Species Act Section 7 review of the proposed project area.

Please refer to NWP General Condition No. 12, which stipulates that appropriate erosion and siltation controls be used during construction and all exposed soil be permanently stabilized. Erosion control measures must be implemented during and after construction of the proposed project to comply with this permit condition.

In order to fully comply with the conditions of the NWP, you must submit the enclosed compliance certification within 30 days of completion of the project. This is required pursuant to NWP General Condition No. 30 of the permit.

This permit action is based upon a Corps of Engineers determination that the subject work is within the jurisdiction of the Department of the Army regulatory program, but does not address nor include any consideration for geographic jurisdiction on aquatic resources and shall not be interpreted as such. You may contact the Little Rock District Regulatory Division if you wish to discuss your options for appealing this determination.

The NWP determination will be valid until March 14, 2026. If NWP No. **57** is modified, suspended, or revoked during this period, your project may not be authorized unless you have begun or are under contract to begin the project. If work has started or the work is under contract, you would then have twelve (12) months to complete the work.

The authorization of this work by a NWP does not relieve you of complying with other applicable local, state, and Federal laws, nor does it grant any property rights or exclusive privileges.

If you have any questions about this permit or any of its provisions, please contact me at (501) 340-1386 and refer to Permit No. **SWL-2022-00307**.

Please submit your comments or suggestions on our Customer Service Survey: https://regulatory.ops.usace.army.mil/customer-service-survey/

Sincerely,

David Rupe
Project Manager

Enclosures

cc:
AR Dept. of Energy and Env., Div. of Envir. Quality, Water Quality Planning Branch
Proj Mgr, Table Rock PO
Ch, Regulatory Enf
Jeff Mackenthun, Merjent, Inc.

Carroll Electric
Cooperative Corporation

800-432-9720
www.carrollecc.com

Your Local Energy Partner

September 15, 2022

David Rupe
Regulatory Project Manager
U.S. Army Corps of Engineers
Little Rock District
Via email at: david.m.rupe@usace.army.mil

Subject: Pre-Construction Notification Submittal
Dry Creek to Smyrna Transmission Line Project
Carroll Electric Cooperative Corporation

Dear Mr. Rupe:

Carroll Electric Cooperative Corporation (CECC) is planning to construct the Dry Creek to Smyrna Transmission Line Project (Project). The Project will consist of the development of an approximately 31.4 miles of new 161 kilovolt transmission line between the Dry Creek Switching Station in Carroll County to the Smyrna Transmission-Distribution Substation in Madison County. CECC would utilize a 100-foot-wide right-of-way to construct the transmission line (50 feet on either side of the line), additional right-of-way to install guy wires, and temporary construction access roads to construct the transmission line.

Per the requirements of the 2021 Nationwide Permit Program and the Regional Conditions for the State of Arkansas – Regional Condition No. 2, CECC is submitting the enclosed Pre-Construction Notification for Project activities in jurisdictional wetlands and waterbodies. Please provide your concurrence that our proposed Project activities may be completed under Nationwide Permit 57. Should you have any questions, please feel free to contact me.

Sincerely,

J Smalley

Jeff Smalley, P.E.
Engineering Manager
Carroll Electric Cooperative Corporation
JSmalley@carrollecc.com

Enclosures: Pre-Construction Notification Form and Supplemental Information Package

CC: Jim Wise, Arkansas Department of Environmental Quality

U.S. Army Corps of Engineers (USACE)

NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)

33 CFR 330. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 02-28-2022

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority	Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Program of the Corps of Engineers (Corps); Final Rule 33 CFR 320-332.
Principal Purpose	Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.
Routine Uses	This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.
Disclosure	Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (*see sample drawings and/or instructions*) and be submitted to the district engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)
First - Jeff Middle - Last - Smalley	First - Jeff Middle - Last - Mackenthun
Company - Carroll Electric Cooperative Corporation (CECC)	Company - Merjent, Inc.
Company Title - Engineering Manager	E-mail Address - jeff.mackenthun@merjent.com
E-mail Address - JSmalley@carrollecc.com	
6. APPLICANT'S ADDRESS	**9. AGENT'S ADDRESS**
Address- PO Box 4000	Address- 1 Main Street SE, Suite 300
City - Berryville State - AR Zip - 72616 Country - U.S.	City - Minneapolis State - MN Zip - 55414 Country - U.S.
7. APPLICANT'S PHONE NOs. with AREA CODE	**10. AGENT'S PHONE NOs. with AREA CODE**
a. Residence b. Business 870-423-2161 c. Fax d. Mobile	a. Residence b. Business c. Fax d. Mobile 612-810-4795

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Jeff Mackenthun to act in my behalf as my agent in the processing of this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

J Smalley 9/15/22

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)
Dry Creek to Smyrna Transmission Line Project

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)
Multiple, See Supplemental Information

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)
Not applicable

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)
Latitude °N Longitude °W
See Supplemental Information

City: Carroll and Madison Counties
State: AR
Zip:

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)
State Tax Parcel ID
Municipality
Section
Township
Range

17. DIRECTIONS TO THE SITE
The transmission line is in Carroll and Madison Counties, Arkansas. The north terminus for the Project is the Dry Creek Switching Station located approximately 1.5 miles southeast of Green Forest, Arkansas (Latitude 36.314660, Longitude -93.413744). The south terminus of the Project is the CECC Smyrna Transmission-Distribution Substation located approximately 2.7 miles northwest of Huntsville, Arkansas (Latitude 36.125260, Longitude -93.766115). Figures of the Project area are provided as Appendix A of Attachment C.

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE
Nationwide Permit 57 - Electric Utility Line and Telecommunications Activities

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)
Footing for one transmission structure will be installed within an emergent wetland (w10). Installation activities will temporarily impact 0.06 acre (50 x 50 ft sq) of wetland w10 which would be mitigated as described in #20. Movement of equipment along the ROW and temporary access roads will cross waterbodies. See Supplement Information for more detail on proposed activities in wetlands and waterbodies.

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)
At wetland w10, CECC will place timber matting over the wetland to prevent rutting and soil compaction, as deemed necessary based on site conditions. CECC will implement a Project-specific Stormwater Pollution Prevention Plan (SWPPP) that complies with stormwater general permit requirements to minimize or avoid erosion and sedimentation impacts to adjacent wetlands. CECC is able to adjust the equipment and travel lane within its 100-foot-wide ROW to avoid all wetlands except wetland w10. Perennial waterbody crossings would be avoided and other intermittent or ephemeral waterbodies will be crossed during dry conditions to the extent practicable. See Supplement Information for more detail on proposed mitigation in wetlands and waterbodies.

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)
The purpose of the Project is to provide additional infrastructure to support the increasing need for energy and improve the quality and reliability of service in a region of northwest Arkansas that spans about half of Madison County, half of Carroll County, and a small portion of Newton County. Current infrastructure in this region would be insufficient to accommodate the required voltage levels and existing demand under conditions such as extreme heat or cold, which lead to higher demands. Voltage level swings are common in the region, resulting in unreliable and sometimes unpredictable energy availability. Additionally, the existing infrastructure supplying the area is old and in need of repair.

22. QUANTITY OF WETLANDS, STREAMS, OR OTHER TYPES OF WATERS DIRECTLY AFFECTED BY PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

Acres	Linear Feet	Cubic Yards Dredged or Discharged
0.06 acre temp. workspace in wetland w10		10 to 20 cu yd. augured for footings

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List 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. (*see instructions*)

CECC will comply with the NWP General Conditions as well as the Regional Conditions for the State of Arkansas

24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

Not applicable. Structure footings will impact less than 20 sq ft of wetland.

25. Is any portion of the nationwide permit activity already complete? ☐ Yes ☒ No If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

USFWS concurred that there is no critical habitat for federally listed species within the Project area; the Project would have no effect on the Eastern black rail, piping plover, and red knot; the Project may affect but would not likely adversely affect the Missouri bladderpod, rabbitsfoot, snuffbox, gray bat, Indiana bat, Northern long-eared bat, and Ozark big-eared bat. Correspondence with the FWS is provided in Attachment B of the Supplemental Information.

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

CECC and Merjent Inc. completed Phase I surveys of the Project ROW and access roads. Twenty-three sites were identified; 15 potentially ineligible and 8 potentially eligible sites. Upon completion of Phase II surveys of the potentially eligible archaeological sites, Merjent recommended 2 sites potentially eligible and 6 ineligible. Mitigation and avoidance is proposed, and with avoidance, SHPO concurred that the Project would not adversely impact archaeological properties. Correspondence is provided in Attachment B of the supplement.

28. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

Not applicable.

29. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? ☐ Yes ☐ No

If "yes", please provide the date your request was submitted to the Corps district: Not Applicable

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

No additional information is required for NWP 57.

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE
	2022-09-15		2022-09-15

The pre-construction notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in Block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Dry Creek to Smyrna Transmission Line Project

Carroll Electric
Cooperative Corporation

U.S. Army Corps of Engineers

Nationwide Permit Pre-Construction Notification

Supplemental Information

September 2022

INTRODUCTION

Carroll Electric Cooperative Corporation (CECC) is proposing to construct and operate the Dry Creek to Smyrna Transmission Line Project (Project), which consists of approximately 31.4 miles of new 161 kilovolt (kV) transmission line between the Dry Creek Switching Station in Carroll County to the Smyrna Transmission-Distribution Substation in Madison County. CECC will utilize a 100-foot-wide right-of-way (ROW) to construct the transmission line (50 feet on either side of the line), additional ROW to install guy wires, and temporary construction access roads to construct the transmission line.

CECC has prepared this Supplemental Information document in support of the U.S. Corps of Engineers (USACE) Nationwide Permit Pre-Construction Notification (PCN) Form. The sections presented in this document correspond to the sections identified in the PCN Form. Note that only sections 13, 15, 19 and 20 are provided in this Supplemental Information document. The remaining sections of the Joint Permit Application that are not provided here do not require further discussion than that provided in the PCN form or do not require completion due to the nature of the project and the type of resources being impacted.

13. NAME OF WATERBODY

Wetland and waterbody field surveys were conducted in May and October 2021 and April of 2022 to identify and document wetlands within the Project area. The wetland surveys were conducted using the on-site methodology set forth in the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the 2010 USACE Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (USACE 2012). Surveys have been completed for the entire ROW, including access roads. The Wetland and Waterbody Survey Report is provided in Appendix A.

Wetlands

A total of 17 wetlands are within the Project's ROW, including 14 palustrine emergent wetlands, 1 scrub-shrub wetland, and 2 forested wetlands. Dredge and fill activities will impact one PEM wetland (W10). An emergent and a scrub-shrub wetland were identified along temporary access roads. One temporary access road would cross an emergent wetland (w06). A scrub-shrub wetland (w12) is adjacent to another temporary access road but will not be impacted by road use.

Clearing of vegetation within the permanent transmission line ROW will impact two forested wetlands (w08 and w19). Activities that could impact these wetlands are described further in #19 below. Maps depicting the location of wetlands in relation to the ROW and access roads are presented in Appendix A – Figure 3 of the Wetland and Waterbody Survey Report provided in Attachment C.

Waterbodies

125 waterbodies and 11 ponds are within the ROW and 7 waterbodies are crossed by temporary access roads. Attachment A lists the waterbodies within the ROW and those that are crossed by temporary

access roads. Maps depicting the location of waterbodies and streams in relation to the ROW and access roads are presented in Appendix A – Figure 3 of the Wetland and Waterbody Survey Report provided in Attachment C. Named waterbodies include Osage Creek (s36), Piney Creek (s60), Tan Yard Branch (s69), Dry Fork (s81), Kings River (s105), and War Eagle Creek (s133). Waterbody crossings activities are described in #19 and mitigation measure are described in #20 below. No Section 10 waters would be crossed by the Project.

15. LOCATION OF PROPOSED ACTIVITY

The Project includes 31.4 miles of new 161 kilovolt (kV) transmission line between the Dry Creek Switching Station in Carroll County to the Smyrna Transmission-Distribution Substation in Madison County. Appendix A – Figure 1 of the Wetland and Waterbody Survey Report provided in Attachment C provides a Project Overview Map. Key coordinates of the Project include:

- Dry Creek Switching Station: Lat. 36.314660 Long. -93.413744
- Smyrna Transmission-Distribution Substation: Lat. 36.125260 Long. -93.766115
- Wetland w10: Lat. 36.285305 Long. -93.416345
- Osage Creek (s36): Lat. 36.226560 Long. -93.428381
- Piney Creek (s60): Lat. 36.198355 Long. -93.470697
- Tan Yard Branch (s69): Lat. 36.180991 Long. -93.497980
- Dry Fork (s81): Lat. 36.160088 Long. -93.524501
- Kings River (s105): Lat. 36.149865 Long. -93.610777
- War Eagle Creek (s133): Lat. 36.141808 Long. -93.730948

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY

Wetlands

Footing for one transmission line structure would be installed within wetland w10. Auger holes for the structure footings would measure approximately 42 inches in diameter with an excavation depth between 7 and 14 feet (10 and 20 cubic yards). No other dredge or fill activities are proposed in wetlands or surface waters.

One PSS wetland was identified adjacent to a proposed access road but will be avoided. Approximately 359 feet of an emergent wetland (w06) would be crossed by a temporary access road. Mitigation for this temporary wetland crossing is described in #20 below.

Clearing and mowing activities would be required to facilitate structure installation, equipment travel along the ROW, and line stringing. Additionally, to facilitate operation of its transmission line, CECC would maintain vegetation along its ROW. These activities would cross 0.48 acre of forested wetland (wetlands w08 and w19). CECC would implement its Vegetation Management Plan to ensure trees do not damage the electric transmission line and jeopardize electric service to its customers.

Waterbodies

Movement of equipment along the ROW and temporary access roads will cross many of the waterbodies identified in Attachment A. Waterbody crossing mitigation is described in #20 below.

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES

Wetlands

At wetland w10, CECC would place timber matting over the wetland to prevent rutting and soil compaction, as deemed necessary based on soil conditions during construction. CECC is able to adjust the equipment and travel lane within its 100-foot-wide ROW to avoid all wetlands except wetland w10. However, woody vegetation clearing within the ROW could temporarily impact wetlands. Where woody vegetation is removed within wetlands, root systems and tree stumps would be left in place and any rutting from clearing activities would be mitigated. CECC will implement a Project-specific Stormwater Pollution Prevention Plan (SWPPP) that complies with stormwater general permit requirements to minimize or avoid erosion and sedimentation impacts to adjacent wetlands. Installation of ECDs and implementation of BMPs would prevent potential erosion and sedimentation impacts to wetlands that may be within or adjacent to the ROW.

Waterbodies

CECC has designed the Project to avoid the crossing of perennial waterbodies to the extent practicable. Larger perennial streams including Osage Creek, Dry Fork, Kings River, and War Eagle Creek will not be crossed other than overhead stringing of wire. CECC will obtain access to each side of perennial waterbodies by using temporary access roads or the Project's ROW from existing public roads to install structures on either side of perennial waterbodies. Transmission wire would be strung across perennial waterbodies via wading, a rope and pulley system, or crane or derrick truck arms operating from the bank of the waterbody. Other than hand felling of woody vegetation, no disturbances to the bed or banks of perennial waterbodies is anticipated. In certain instances, smaller perennial waterbodies (i.e., <12 feet in width) may be crossed using temporary equipment bridges as described below.

CECC will make every attempt to cross intermittent or ephemeral waterbodies during dry conditions, or utilize access roads or public roads to conduct project activities from either side of these waterbodies if they are flowing. If an intermittent or ephemeral waterbody must be crossed during wet conditions, a temporary crossing bridge would be placed above the ordinary high water mark of the waterbody and appropriate spanning or culverts would be used to maintain surface flows. Temporary bridges would be removed once Project activities are completed along that portion of the Project.

ATTACHMENT A

WATERBODY TABLE

ID	Waterbody Name	Flow Regime	OHWM Width	OHWM Depth	Substrate
s01		Ephemeral	4.0	3.0	Cobble
s02		Ephemeral	2.0	2.0	Cobble
s03		Perennial	6.0	8.0	Cobble
s04		Ephemeral	1.5	3.0	Gravel
s05		Unknown	9.0	12.0	Cobble
s06		Perennial	3.0	4.0	Cobble
s07		Unknown	20.0	14.0	Cobble
s08		Intermittent	4.0	4.0	Sand
s09		Ephemeral	2.0	2.0	Boulders
s11		Perennial	3.0	4.0	Gravel
s12		Intermittent	2.5	4.0	Cobble
s13		Intermittent	1.0	2.0	Silt/clay/mud
s14		Intermittent	2.0	4.0	Cobble
s15		Intermittent	4.0	3.0	Bedrock
s16		Intermittent	2.0	2.0	Sand
s17		Perennial	3.0	6.0	Gravel
s18		Intermittent	1.0	2.0	Sand/gravel/cobble
s19		Ephemeral	2.0	4.0	Bedrock
s20		Perennial	1.5	3.0	Silt/clay/mud
s21		Perennial	2.5	6.0	Boulders
s22		Perennial	4.0	8.0	Cobble
s23		Perennial	8.0	12.0	Boulders
s24		Intermittent	3.0	4.0	Gravel
s25		Perennial	6.0	7.0	Boulders
s26		Intermittent	2.0	3.0	Cobble
s27		Intermittent	1.5	1.0	Silt/clay/mud
s28		Ephemeral	2.0	1.0	Boulders
s29		Intermittent	2.5	3.0	Boulders
s30		Ephemeral	1.5	2.0	Silt/clay/mud
s31		Ephemeral	2.0	4.0	Silt/clay/mud
s32		Ephemeral	2.0	1.0	Boulders
s33		Ephemeral	2.0	4.0	Silt/clay/mud
s34		Perennial	12.0	1.0	Cobble
s35		Intermittent	2.0	5.0	Gravel
s36	Osage Creek	Perennial	130.0	6.0	Sand

ID	Waterbody Name	Flow Regime	OHWM Width	OHWM Depth	Substrate
s37		Ephemeral	2.0	2.0	Cobble
s38		Ephemeral	10.0	8.0	Cobble
s39		Ephemeral	3.0	2.0	Silt/clay/mud
s40		Ephemeral	2.0	3.0	Silt/clay/mud
s41		Ephemeral	1.0	2.0	Silt/clay/mud
s42		Ephemeral	1.0	2.0	Silt/clay/mud
s43		Ephemeral	1.5	2.0	Silt/clay/mud
s44		Intermittent	8.0	6.0	Boulders
s45		Intermittent	3.5	4.0	Sand
s46		Perennial	4.0	6.0	Cobble
s47		Ephemeral	1.5	3.0	Silt/clay/mud
s48		Intermittent	3.0	6.0	Cobble
s49		Ephemeral	2.0	2.0	Silt/clay/mud
s50		Ephemeral	2.0	2.0	Silt/clay/mud
s51		Intermittent	2.5	8.0	Silt/clay/mud
s52		Ephemeral	1.5	2.0	Silt/clay/mud
s53		Ephemeral	2.0	2.0	Bedrock
s54		Intermittent	10.0	6.0	Cobble
s55		Intermittent	5.0	6.0	Cobble
s56		Intermittent	12.0	1.0	Bedrock
s57		Ephemeral	1.5	3.0	Cobble
s58		Ephemeral	2.0	2.0	Gravel
s59		Ephemeral	2.0	2.0	Gravel
s60	Piney Creek	Perennial	12.0	12.0	Bedrock
s61		Perennial	5.0	6.0	Gravel
s62		Perennial	3.0	5.0	Gravel
s63		Ephemeral	5.0	4.0	Cobble
s64		Ephemeral	2.5	2.0	Silt/clay/mud
s65		Ephemeral	1.0	1.0	Silt/clay/mud
s66		Ephemeral	2.0	4.0	Silt/clay/mud
s67		Ephemeral	1.5	2.0	Silt/clay/mud
s68		Perennial	2.5	6.0	Gravel
s69	Tan Yard Branch	Perennial	9.0	12.0	Bedrock
s70		Intermittent	4.0	4.0	Gravel
s71		Intermittent	2.5	5.0	Silt/clay/mud

ID	Waterbody Name	Flow Regime	OHWM Width	OHWM Depth	Substrate
s72		Intermittent	2.5	5.0	Silt/clay/mud
s73		Intermittent	4.0	6.0	Gravel
s74		Intermittent	1.5	4.0	Bedrock
s75		Intermittent	3.0	4.0	Boulders
s76		Ephemeral	2.5	4.0	Bedrock
s77		Ephemeral	1.0	1.0	Bedrock
s78		Ephemeral	1.0	1.0	Silt/clay/mud
s79		Ephemeral	6.0	5.0	Gravel
s80		Intermittent	3.0	4.0	Bedrock
s81	Dry Fork	Perennial	32.0	4.0	Gravel
s82		Ephemeral	3.0	3.0	Gravel
s83		Perennial	6.0	7.0	Bedrock
s84		Ephemeral	1.0	2.0	Silt/clay/mud
s85		Perennial	8.0	10.0	Cobble
s86		Ephemeral	3.0	5.0	Gravel
s87		Perennial	5.0	5.0	Cobble
s88		Ephemeral	2.5	4.0	Gravel
s89		Ephemeral	2.0	4.0	Cobble
s90		Perennial	6.0	8.0	Bedrock
s91		Perennial	5.0	6.0	Bedrock
s92		Intermittent	5.0	5.0	Gravel
s93		Intermittent	5.0	4.0	Gravel
s94		Ephemeral	1.5	3.0	Gravel
s95		Ephemeral	4.0	4.0	Gravel
s96		Ephemeral	7.0	6.0	Gravel
s97		Ephemeral	4.0	5.0	Gravel
s98		Ephemeral	2.5	2.0	Gravel
s99		Ephemeral	1.0	2.0	Silt/clay/mud
s100		Intermittent	3.0	4.0	Bedrock
s101		Perennial	4.0	6.0	Bedrock
s102		Ephemeral	6.0	5.0	Gravel
s103		Ephemeral	2.0	4.0	Cobble
s104		Intermittent	3.0	5.0	Gravel
s105	Kings River	Perennial	100.0	8.0	Gravel
s106		Perennial	20.0	14.0	Cobble

ID	Waterbody Name	Flow Regime	OHWM Width	OHWM Depth	Substrate
s107		Perennial	12.0	14.0	Sand
s108		Intermittent	3.0	5.0	Gravel
s109		Perennial	14.0	12.0	Gravel
s110		Intermittent	3.0	4.0	Cobble
s111		Ephemeral	2.0	4.0	Gravel
s112		Intermittent	2.0	4.0	Silt/clay/mud
s113		Ephemeral	3.0	4.0	Gravel
s114		Ephemeral	2.5	5.0	Gravel
s115		Intermittent	6.0	6.0	Gravel
s116		Ephemeral	2.5	4.0	Gravel
s117		Ephemeral	2.0	1.0	Silt/clay/mud
s118		Ephemeral	1.5	2.0	Silt/clay/mud
s119		Ephemeral	1.5	2.0	Silt/clay/mud
s120		Ephemeral	3.0	8.0	Silt/clay/mud
s121		Perennial	8.0	6.0	Bedrock
s122		Ephemeral	8.0	6.0	Gravel
s123		Ephemeral	1.5	2.0	Gravel
s124		Ephemeral	2.0	4.0	Gravel
s125		Intermittent	3.0	4.0	Gravel
s126		Ephemeral	1.5	3.0	Gravel
s127		Perennial	6.0	10.0	Cobble
s129		Ephemeral	1.5	1.0	Cobble
s130		Ephemeral	1.0	2.0	Silt/clay/mud
s131		Ephemeral	2.5	4.0	Gravel
s132		Ephemeral	1.5	1.0	Gravel
s133	War Eagle Creek	Perennial	100.0	10.0	Gravel

ATTACHMENT B

AGENCY CORRESPONDENCE

U.S. Fish and Wildlife Service Correspondence

- **February 11, 2022 consultation letter from Thomas Inebnit (USFWS) to Kory Armstrong (Merjent, Inc.)**
- **February 1, 2022 consultation letter from Kory Armstrong (Merjent, Inc.) to Thomas Inebnit (USFWS)**
- **August 25, 2021 IPaC Record Locator: 137-105079135 USFWS response to IPaC/DKey submittal from Kory Armstrong (Merjent, Inc.)**
- **May 18, 2021 consultation letter from USFWS regarding a list of potential threatened and endangered species in the Project location**

IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE
110 S. Amity Road, Suite 300
Conway, Arkansas 72032
Tel.: 501/513-4470 Fax: 501/513-4480

February 11, 2022

Kory Armstrong
Merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414

Dear Mr. Armstrong:

The U.S. Fish and Wildlife Service (Service) reviewed your letter dated February 1, 2022, and the IPaC Record Locator (137-105079135) concerning the proposed construction of the Carroll Electric Cooperative Corporation's Dry Creek to Smyrna Transmission Line Project in Carroll and Madison counties, Arkansas. Our comments are submitted in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.).

The Service concurs with your "may affect, but not likely to adversely affect" determination for the Indiana bat (*Myotis sodalis*), Gray bat (*Myotis grisescens*), and Ozark Big-eared bat (*Corynorhinus townsendii ingens*) based on the conservation measures described in your letter dated February 1, 2022. Consultation has been completed for all other species that may occur in your project area via IPaC.

We appreciate your interest in the conservation of endangered species. If you have any questions, please contact the Arkansas Ecological Services Staff at (501) 513-4483.

Sincerely,

For Melvin Tobin
Project Leader

From:	Kory Armstrong
To:	Inebnit, Thomas
Cc:	Jeff Smalley; Jeff Mackenthun
Subject:	CECC Dry Creek to Smyrna Transmission Line Project
Date:	Tuesday, February 1, 2022 1:12:40 PM
Attachments:	CECC_Dry Creek to Smyrna_Sec 7 Consultation_Final.pdf image001.png

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Good afternoon Tommy,

Attached is the consultation letter for the CECC Dry Creek to Smyrna Transmission Line project. Please let me know if you if have any questions or comments. Thanks again for your help.

Kory

Kory Armstrong
Atlanta, Georgia
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February 1, 2022

Mr. Tommy Inebnit
U.S. Fish & Wildlife Service
Arkansas Ecological Services Field Office
110 S. Amity Road, Suite 300
Conway, AR 72032

Re: Carroll Electric Cooperative Corporation - Dry Creek to Smyrna Transmission Line Project
USFWS Endangered Species Act Section 7 Consultation

Mr. Inebnit:

Carroll Electric Cooperative Corporation (CECC) plans to seek financial assistance from the United States Department of Agriculture (USDA), Rural Development, Rural Utilities Service (RUS) under its Electric Program for the development of Dry Creek to Smyrna Transmission Line Project (Project). CECC owns and operates an electric transmission system in the state of Arkansas and is proposing to develop an approximately 31.4-mile transmission line to connect the Smyrna Transmission-Distribution Substation to the Dry Creek Switching Station in Carroll and Madison Counties, Arkansas. The design of the electrical facilities would be CECC's standard insulated 161 kV overhead, three-phase, shielded, transmission line design primarily using H-Frame metal structures within a new 100-foot right-of-way. The Project would resolve several contingencies and increase capacity for the transmission system presently serving customers in the area. The proposed transmission line will be subject to review and approval by the Arkansas Public Service Commission and will require National Environmental Policy Act (NEPA) review by RUS.

Bald Eagles and Raptors

CECC requested known bald eagle nest locations from U.S. Fish & Wildlife Service (USFWS) and Arkansas Natural Heritage Commission (ANHC) on September 15, 2020. Based on available data from both agencies, no known bald eagle nest locations were identified within proximity of the Project. Nesting season for bald eagles and raptors in the Project area is from December 15th to June 30th. As such, clearing activities for the Project will not have adverse impacts on bald eagles and raptors.

Migratory Birds

Based on the USFWS proposed January 7 Rule (*Regulations Governing Take of Migratory Birds;* 86 FR 1134), incidental take is not prohibited under the Migratory Bird Treaty Act (MBTA). However, the January 7 Rule is currently under legal challenges and may be revoked leading to a return to implementing the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent. As a voluntary conservation measure, CECC has committed to conducting clearing activities outside of the migratory bird nesting season (April 15th to August 15th) to avoid/minimize take of migratory birds.

Species and Critical Habitat Considered

CECC conducted a review of the USFWS Information for Planning and Consultation project planning tool (IPaC) and developed a list of species listed as endangered, threatened, proposed, or candidate under the Endangered Species Act of 1973 (ESA) that may occur in the counties crossed by the Project. This review

also sought to identify whether designated critical habitat for federally listed species intersects the Project route.

Designated critical habitat is defined as those areas that are considered crucial for the conservation of a species and that may require special management or protection; this designation is based on the presence of certain primary constituent elements (PCEs) (i.e., those physical and biological features of habitat that are considered essential for the conservation of the species). The proposed Project route does not intersect designated critical habitat units for federally protected species.

Table 1 provides the listed species that may occur in the counties crossed by the Project. For species that may be affected by the Project, an analysis of potential impacts due to the Project and a proposed ESA determination are detailed below and proposed clearing window. As noted above, designated critical habitat is not present within the Project area, and the Project will have no effect on designated critical habitat; as such, it is not discussed further.

On August 25, 2021, Merjent, on behalf of CECC, submitted an effects determination for the Project to the USFWS using the *Consultation on effects of proposed projects to threatened and endangered species in Arkansas* Determination Key (D Key) within the IPaC system. The resulting consistency letter generated by the key (IPaC Record Locator: 137-105079135 dated Aug. 25, 2021; enclosed here) stated that Project activities would have ***no effect*** on piping plovers, eastern black rails, and rufa red knots; as such, these species are not discussed further.

In addition, the consistency letter stated that Project activities ***may affect, but are not likely to adversely affect*** rabbitsfoot, snuffbox, or Missouri bladderpod. The Service concurred with these determinations, and no further consultation is required for these species; as such, they are not discussed further.

Table 1
Federally Listed Species Potentially Present in the Dry Creek to Smyrna Project Area

Scientific Name	Common Name	ESA Status	Effects Determination Under the ESA[1]	Clearing Window
Myotis septentrionalis	Northern long-eared bat	Threatened	May affect, but incidental take is not prohibited	August 1st – May 31st
Myotis sodalis	Indiana bat	Endangered	May affect	November 15th – March 31st
Myotis grisescens	Gray bat	Endangered	May affect	November 15th – March 31st
Corynorhinus townsendii ingens	Ozark big-eared bat	Endangered	May affect	November 15th – March 31st
Charadrius melodus	Piping plover	Threatened	No effect	N/A
Laterallus jamaicensis	Eastern black rail	Threatened	No effect	N/A
Calidris canutus rufa	Rufa red knot	Threatened	No effect	N/A
Quadrula cylindrica cylindrica	Rabbitsfoot	Threatened	May affect, but not likely to adversely affect	N/A
Epioblasma triquetra	Snuffbox	Endangered	May affect, but not likely to adversely affect	N/A
Physaria filiformis	Missouri bladderpod	Threatened	May affect, but not likely to adversely affect	N/A

[1] Effects determinations are based upon completion of the Consultation on effects of proposed projects to threatened and endangered species in Arkansas Determination Key in IPaC and the resulting consistency letter generated by the key (IPaC Record Locator: 137-105079135 dated Aug. 25, 2021).

Northern long-eared bat

The range of the northern long-eared bat stretches across much of the eastern and Midwestern United States. During summer, northern long-eared bats roost singly or in colonies under bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places such as caves and mines. This species is thought to be opportunistic in selecting roosts, utilizing tree species based on the tree's ability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures such as barns and sheds. In winter, northern long-eared bats utilize caves and mines as hibernacula.

On April 1, 2015, the USFWS listed the northern long-eared bat as threatened under the Endangered Species Act and simultaneously published an interim 4(d) rule; the final listing and interim 4(d) rule took effect as of May 4, 2015. On January 14, 2016 the USFWS published the final 4(d) rule identifying prohibitions that focus on protecting the bat's sensitive life stages in areas affected by white-nose syndrome.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging or raising pups in summer habitat. Bats may be injured or killed if occupied trees are cleared during this active window (i.e., April 1 – September 30), and the species may be disturbed during clearing or construction activities due to noise or human presence.

Incidental take of northern long-eared bats is not prohibited under the 4(d) rule for the species provided project activities are not conducted within 0.25 mile of known hibernacula and do not remove known roost trees or trees within 150 feet of known roosts.

CECC conducted surveys to identify suitable northern long-eared bat roosting habitat within an environmental clearance boundary (ECB) associated with the Project. Suitable habitat for northern long-eared bats is present in the Project area, and tree clearing activities will be necessary for Project activities. The Arkansas Ecological Services Field Office (ARFO) has incorporated site-specific information for the NLEB hibernacula and maternity roost tree locations into IPaC. The IPaC review for the Project confirmed the absence of known hibernacula within 0.25 mi and the absence of known roost trees within 150 feet from the Project area.

Merjent, on behalf of CECC, submitted an effects determination for northern long-eared bats to the USFWS using D Key within the IPaC system, per USFWS consultation guidelines for northern long-eared bats. The resulting consistency letter generated by the key stated that the Project may affect northern long-eared bats in a manner consistent with the description of activities addressed by the Service's Programmatic Biological Opinion (PBO) dated January 5, 2016. Any taking that may occur incidental to the Project is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). The letter confirms that the PBO satisfies the ESA Section 7(a)(2) consultation responsibilities relative to northern long-eared bats, and further consultation is not necessary.

Indiana bat

The Indiana bat is a medium-sized (3 to 3.5 inches long and wingspan of 9.5 to 10.5 inches) brown bat found throughout the eastern half of the United States. Winter Indiana bat habitat includes mines and caves where the bats hibernate generally October through March, although bats may arrive as early as late July. They require cool, humid hibernacula with stable temperatures under 50° F but above freezing; very few caves within the range of the species have these conditions. Hibernation is an adaptation for

survival during the cold winter months when prey species are not available. Bats must store energy in the form of fat before hibernating; during the six months of hibernation, this stored fat is the bat's only source of energy.

When active, the Indiana bat roosts in dead trees, dying trees, or live trees with exfoliating bark. During the summer months, most reproductive females occupy roost sites that receive direct sunlight for more than half the day. Roost trees are generally found within canopy gaps in a forest, fence line, or along a wooded edge. Maternity roosts are found in riparian zones, bottomland and floodplain habitats, wooded wetlands, as well as upland communities. Indiana bats forage in semi-open to closed forested habitats, forest edges, and riparian areas. Indiana bats exhibit fidelity to their summer habitats, returning to the same foraging and roosting areas each year.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging or raising pups in summer habitat. Bats may be injured or killed if occupied trees are cleared during this active window (i.e., April 1 – September 30), and the species may be disturbed during clearing or construction activities due to noise or human presence.

Merjent, on behalf of CECC, submitted an effects determination for Indiana bats to the USFWS using the D Key within the IPaC system. The resulting consistency letter stated that the Project may affect Indiana bats, and that further consultation with the ARFO regarding Project impacts to the species was required.

Gray bat

Gray bats are distinguished from other bats by the unicolored fur on their back. In addition, following their molt in July or August, gray bats have dark gray fur which often bleaches to a chestnut brown or russet. The gray bat occupies a limited geographic range in limestone karst areas of the southeastern United States. They are mainly found in Alabama, northern Arkansas, Kentucky, Missouri, and Tennessee. With rare exceptions, gray bats live in caves year-round. Gray bats forage along streams and in wooded riparian areas, usually between 0.6 and 2.5 miles from maternity caves. During the winter gray bats hibernate in deep, vertical caves. In the summer, they roost in caves which are scattered along rivers. These caves are in limestone karst areas. They do not use houses or barns.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging in summer habitat. Removal of foraging habitat may be detrimental to individuals if trees are cleared during the active window (i.e., April 1 – September 30). The species may also be disturbed during clearing or construction activities due to noise, vibration, and/or human presence. Due to the species' habit of living in large numbers in few caves, the gray bat is extremely susceptible to disturbance, particularly in their winter hibernacula. Construction activities conducted near occupied caves in the winter may disturb hibernating bats, causing them to utilize energy stores meant to sustain them until spring. In addition, impacts to karst may cause changes to caves that disrupt temperature, air flow, and humidity, potentially rendering a cave unsuitable for gray bats.

Merjent, on behalf of CECC, submitted an effects determination for gray bats to the USFWS using the D Key within the IPaC system. The resulting consistency letter stated that the Project may affect gray bats, and that further consultation with the ARFO regarding Project impacts to the species was required.

Ozark big-eared bat

Ozark big-eared bats are the largest subspecies of all Townsend's big-eared bats and are distinguished from other bats in the region by their exceptionally long ears (1.2 to 1.5 inches) and large wingspan of

11.6 to 12.8 inches. Their ears are connected at the base forming a V shape on the forehead. Ozark big-eared bats are similar to only one other species in Arkansas, Rafinesque's big-eared bat which has similar ear structure. However, OBEB have cream or tan fur on the stomach compared to the white stomach of a Rafinesque big-eared bat.

Ozark big-eared bats have the smallest range of any bat species in the United States being restricted to the Ozark region but only found within four counties in Arkansas: Washington, Crawford, Franklin, and Marion. The species is non-migratory and are cave obligate. They are not known to occupy trees but have been documented in manmade structures during the summer maternity season.

Project activities may potentially impact individual bats if clearing or construction takes place when the species is foraging in summer habitat. Removal of foraging habitat may be detrimental to individuals if trees are cleared during the active window (i.e., April 1 – September 30). Construction activities conducted near direct proximity occupied caves in the winter may disturb hibernating bats, causing them to utilize energy stores meant to sustain them until spring. In addition, impacts to karst may cause changes of the microclimate to caves that disrupt temperature, air flow, and humidity, potentially rendering a cave unsuitable for Ozark big-eared bats.

Merjent, on behalf of CECC, submitted an effects determination for Ozark big-eared bats to the USFWS using the D Key within the IPaC system. The resulting consistency letter stated that the Project may affect gray bats, and that further consultation with the ARFO regarding Project impacts to the species was required.

Summary

Merjent, on behalf of CECC, consulted with the USFWS to avoid/minimize direct impacts to Indiana bat, gray bat, and Ozark big-eared bat. CECC has committed to offseason clearing (November 15 to March 31) for the Project. USFWS has attempted to contact landowners to independently access caves near the Project to determine if the caves are occupied by any of the target species. No additional information of occupancy is available at this time. However, clearing activities are not anticipated within 100 feet of the identified cave openings. If clearing is necessary within 100 feet of cave openings, CECC will commit to condensed clearing schedule within a 100 foot buffer of the opening and limit clearing activities between December 1 and February 15. With these conservation measures in place, we believe Project activities ***may affect***, ***but are not likely to adversely affect*** the Indiana bat, gray bat, and Ozark big-eared bat. Based on the implementation of these measures we request confirmation from the USFWS regarding these determinations.

Please contact me at (417) 827-4231 or kory.armstrong@merjent.com with any questions you may have.

Respectfully submitted,

Kory Armstrong
Merjent, Inc.

Enclosures: USFWS Consistency letter generated by the key (IPaC Record Locator: 137-105079135 dated Aug. 25, 2021

cc: Jeff Mackenthun, Merjent. Inc.
Andrea Sampson, Merjent, Inc.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
Phone: (501) 513-4470 Fax: (501) 513-4480
http://www.fws.gov/arkansas-es

IPaC Record Locator: 137-105079135 August 25, 2021

Subject: Consistency letter for 'Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the Arkansas Determination Key for project review and guidance for federally listed species (Arkansas Dkey).

Dear Kory Armstrong:

The U.S. Fish and Wildlife Service (Service) received on **August 25, 2021** your effect determination(s) for the 'Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811' (the Action) using the Arkansas DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance in the Service's Arkansas DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*)	Threatened	No effect
Gray Bat (*Myotis grisescens*)	Endangered	May affect
Indiana Bat (*Myotis sodalis*)	Endangered	May affect
Missouri Bladderpod (*Physaria filiformis*)	Threatened	NLAA
Northern Long-eared Bat (*Myotis septentrionalis*)	Threatened	May affect
Ozark Big-eared Bat (*Corynorhinus (=Plecotus) townsendii ingens*)	Endangered	May affect
Piping Plover (*Charadrius melodus*)	Threatened	No effect
Rabbitsfoot (*Quadrula cylindrica cylindrica*)	Threatened	NLAA
Red Knot (*Calidris canutus rufa*)	Threatened	No effect
Snuffbox Mussel (*Epioblasma triquetra*)	Endangered	NLAA

Status

Consultation with the Service is not complete. Further consultation or coordination with the Arkansas Ecological Services Office is necessary for those species with a determination of "may affect" (MA) listed above. Please contact our office at 501-513-4470, arkansas_es_clearance@fws.gov, or your agency point of contact in the Arkansas Ecological Services Office to discuss methods to avoid or minimize potential adverse effects to those species.

The Service concurs with the NLAA determination(s) for the species listed above. Your agency has met consultation requirements by informing the Service of the "No Effect" determinations. No further consultation for this project is required for these species. This letter confirms you may rely on effect determinations provided in the Arkansas Determination Key for project review and guidance for federally listed species to satisfy agency consultation requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

The proposed project may affect the Northern Long-eared Bat. However, this project complies with the final 4(d) rule with incidental take covered by the U.S. Fish and Wildlife Service's January 5, 2016, Intra-Service Programmatic Biological Opinion on the final 4(d) rule for the NLEB addressing "Activities Excepted from Take Prohibitions. No further consultation is required for the proposed project for this species.

The Service recommends that your agency contact the Arkansas Ecological Services Field Office or re-evaluate this key in IPaC if: 1) the scope, timing, duration, or location of the proposed project changes, 2) new information reveals the action may affect listed species or designated critical habitat; 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Arkansas Ecological Services Field Office should take place before project changes are final or resources committed.

Bald and Golden Eagle Protection Act: The following resources are provided to project proponents and consulting agencies as additional information. Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service.

The Service developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with Bald Eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest. This document may be downloaded from the following site: https://www.fws.gov/southeast/our-services/permits/eagles/

To determine if your proposed activity is likely to take or disturb Bald Eagles, complete our step-by-step online self-certification process, which is located at https://www.fws.gov/southeast/our-services/eagle-technical-assistance/.

If the recommendations detailed in the National Bald Eagle Management Guidelines cannot be followed, you may apply for a permit to authorize removal or relocation of an eagle nest in certain instances. The application form is located at http://www.fws.gov/forms/3-200-72.pdf.

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

1. Name

Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811

2. Description

The following description was provided for the project 'Dry Creek to Smyrna Transmission Line Project - CECC 2017-2020 CWP Projects #810 and #811':

> Carroll Electric Cooperative Corporation (CECC) plans to seek financial assistance from the United States Department of Agriculture, Rural Development, Rural Utilities Service (RUS) under its Electric Program for the development of Dry Creek to Smyrna Transmission Line Project (Project). CECC owns and operates an electric transmission system in the state of Arkansas and is proposing to develop an approximately 30.5-mile transmission line to connect the Smyrna Transmission-Distribution Substation to the Dry Creek Switching Station in Carroll and Madison Counties, Arkansas. The design of the electrical facilities would be CECC's standard insulated 161 kV overhead, three-phase, shielded, transmission line design primarily using H-Frame metal structures within a new 100-foot right-of-way. The Project would resolve several contingencies and increase capacity for the transmission system presently serving customers in the area. The proposed transmission line will be subject to review and approval by the Arkansas Public Service Commission and will require National Environmental Policy Act review by RUS.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.2923185,-93.41775420141187,14z

Species Protection Measures
Streambank Stabilization
https://www.fws.gov/southeast/pdf/species-protective-measures/streambank-stabilization-projects.pdf

Pipeline and Linear Projects
https://www.fws.gov/southeast/pdf/species-protective-measures/pipeline-and-linear-projects.pdf

Qualification Interview

1. Have you made an effects determination of "no effect" for all species in the area of the project? A "no effect" determination means the project will have no beneficial effect, no short-term adverse effects, and no long-term adverse effects on any of the species on the IPaC-generated species list for the proposed project or those species habitat. A project with effects that cannot be meaningfully measured, detected or evaluated, effects that are extremely unlikely to occur, or entirely beneficial effects should not have a "no effect" determination. (If unsure, select "No").

   No

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

   Yes

3. Are you the the action agency or the designated non-federal representative?

   No

4. Choose the agency you represent in this consultation with the U.S. Fish and Wildlife Service:

   f. All other federal agencies or agency designees

5. [Semantic] Does the project intersect designated critical habitat for the Leopard Darter?

   Automatically answered
   No

6. [Semantic] Does the project intersect designated critical habitat for the Neosho Mucket?

   Automatically answered
   No

7. [Semantic] Does the project intersect designated critical habitat for Yellowcheek Darter?

   Automatically answered
   No

8. [Semantic] Does the project intersect designated critical habitat for Rabbitsfoot?

   Automatically answered
   No

9. [Semantic] Does the project intersect the American burying beetle consultation area?

   Automatically answered
   No

10. [Semantic] Does the project intersect the red-cockaded woodpecker AOI?

    Automatically answered
    No

11. [Semantic] Does the project intersect the Eastern black rail AOI?

    Automatically answered
    Yes

12. Will the project affect sand and gravel areas or shorelines along rivers, lakes, or reservoirs?

    No

13. Does the project take place in marshy or flooded open field habitat?

    No

14. [Semantic] Does the project intersect the red knot AOI?

    Automatically answered
    Yes

15. [Semantic (same answer as "8.1.3"] Will the project affect sand and gravel areas or shorelines along rivers, lakes, or reservoirs?

    Automatically answered
    No

16. [Semantic (same answer as "8.2"] Does the project take place in marshy or flooded open field habitat?

    Automatically answered
    No

17. [Semantic] Does the project intersect the Piping Plover AOI?

    Automatically answered
    Yes

18. [Semantic (same answer as "8.1.3 or 9.3"] Will the project affect sand and gravel areas or shorelines along rivers, lakes, or reservoirs?

    Automatically answered
    No

19. [Semantic] Does the project intersect the Whooping Crane AOI?

    Automatically answered
    No

20. [Semantic] Does the project intersect the interior least tern AOI?

    Automatically answered
    No

21. [Semantic] Does the project intersect the Gray Bat AOI?

    Automatically answered
    Yes

22. Are there any caves within 0.5 mile of the project area?

    Yes

23. [Semantic] Does the project intersect the Ozark Big-eared Bat AOI?

    Automatically answered
    Yes

24. [Sematic (same answer as question "13.2")] Is there a cave known on the site or within 0.5 mile of the project area?

    Automatically answered
    Yes

25. [Semantic] Does the project intersect the Indiana bat AOI?

    Automatically answered
    Yes

26. [Sematic (same answer as question "13.2" or "14.4")] Are there any caves within 0.5 mile of the project area?

    Automatically answered
    Yes

27. [Semantic] Does the project intersect the Northern Long-eared bat AOI?

    Automatically answered
    Yes

28. Have you determined that the proposed action will have “no effect” on the northern long-eared bat? (If you are unsure select "No")

    No

29. Will your activity purposefully Take northern long-eared bats?

    No

30. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?
    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency (Semantic: Edge In Answer Path)

    Automatically answered
    No

31. Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?
    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency (Semantic: Edge In Answer Path)

    Automatically answered
    No

32. [Semantic] Does the project intersect the Benton County Cave Crayfish AOI?

    Automatically answered
    No

33. [Semantic] Does the project intersect the Hell Creek Cave Crayfish AOI?

    Automatically answered
    No

34. [Semantic] Does the project intersect the Ozark cavefish AOI?

    Automatically answered
    No

35. [Semantic] Does the project intersect the Missouri bladderpod AOI?

    Automatically answered
    Yes

36. Is the proposed project in or near an open glade (an area with thin, poor soil and bedrock close to the surface or in rocky outcrops) or in shale barrens (Ouachita Mountains ecoregion)?

    Yes

37. Will project proponents implement Species Protective Measures for Missouri Bladderpod?

    Yes

38. [Semantic] Does the project intersect the Geocarpon AOI?

    Automatically answered
    No

39. [Semantic] Does the project intersect the running buffalo clover AOI?

    Automatically answered
    No

40. [Semantic] Does the project intersect the Pondberry AOI?

    Automatically answered
    No

41. [Semantic] Does the project occur within the survey coordination area?

    Automatically answered
    Yes

42. This project intersects a waterbody where listed aquatic species may occur. Have you contacted the Arkansas Ecological Services Office to determine if a fish, mussel, or amphibian species survey or suitable habitat survey is recommended for this project?

    Yes

43. Was a species survey recommended by the Arkansas ES Field Office?

    No

44. Does the project contain any of the following activity types:
    Boat Ramps,
    Bridges,
    Culverts,
    Development,
    Dams or Impoundments (including berms and levees),
    Streambank Stabilization (or other streambank work),
    Pipeline and linear projects,
    Water intakes/withdrawls, or
    Stream or ditch relocation?

    Yes

45. Does the project include Streambank Stabilization (or other streambank work)?

    Yes

46. Does the project include the Streambank Stabilization species protective measures, as applicable to the project and site characteristics?

    Yes

47. Does the project include Boat Ramps?

    No

48. Does the project include Bridges and Culverts?

    No

49. Does the project include Dams and Impoundments (including berms or levees)?

    No

50. Does the project include Development?

    No

51. Is the project a Pipeline or Linear Project?

    Yes

52. Does the project include the Pipeline and Linear Projects species species protective measures, as applicable to the project and site characteristics?

    Yes

53. Does the project include Water Intakes/Withdrawals?

    No

54. Does the project include Stream or Ditch Relocation?

    No

55. [Semantic] Does the project intersect the rabbitsfoot AOI?

    Automatically answered
    Yes

56. [Semantic] Does the project instersect the neosho mucket AOI?

    Automatically answered
    No

57. [Semantic] Does the project instersect the Spectaclecase AOI?

    Automatically answered
    No

58. [Semantic] Does the project instersect the snuffbox AOI?

    Automatically answered
    Yes

59. [Semantic] Does the project instersect the speckled pocketbook AOI?

    Automatically answered
    No

60. [Semantic] Does the project instersect the ouachita rock pocketbook AOI?

    Automatically answered
    No

61. [Semantic] Does the project instersect the fat pocketbook AOI?

    Automatically answered
    No

62. [Semantic] Does the project instersect the Curtis pearlymussel AOI?

    Automatically answered
    No

63. [Semantic] Does the project instersect the scaleshell AOI?

    Automatically answered
    No

64. [Semantic] Does the project instersect the pink mucket AOI?

    Automatically answered
    No

65. [Semantic] Does the project instersect the Arkansas fatmucket AOI?

    Automatically answered
    No

66. [Semantic] Does the project instersect the winged mapleleaf AOI?

    Automatically answered
    No

67. [Semantic] Does the project instersect the leopard darter AOI?

    Automatically answered
    No

68. [Semantic] Does the project instersect the Yellowcheek darter AOI?

    Automatically answered
    No

69. [Semantic] Does the project instersect the Ozark hellbender AOI?

    Automatically answered
    No

70. [Semantic] Does the project instersect the harperella AOI?

    Automatically answered
    No

71. [Semantic] Does the project instersect the pallid sturgeon AOI?

    Automatically answered
    No

Project Questionnaire

1. **If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.**
   1. Estimated total acres of forest conversion:

   0
2. 2. If known, estimated acres of forest conversion from April 1 to October 31

   0
3. 3. If known, estimated acres of forest conversion from June 1 to July 31

   0
4. **If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.**
   4. Estimated total acres of timber harvest

   00
5. 5. If known, estimated acres of timber harvest from April 1 to October 31

   0
6. 6. If known, estimated acres of timber harvest from June 1 to July 31

   0
7. **If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.**
   7. Estimated total acres of prescribed fire

   0
8. 8. If known, estimated acres of prescribed fire from April 1 to October 31

   0
9. 9. If known, estimated acres of prescribed fire from June 1 to July 31

   0
10. **If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.**
    10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

    0

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
Phone: (501) 513-4470 Fax: (501) 513-4480
http://www.fws.gov/arkansas-es

In Reply Refer To: May 18, 2021
Consultation Code: 04ER1000-2021-SLI-1023
Event Code: 04ER1000-2021-E-02870
Project Name: Dry Creek to Smyrna Transmission Line Project

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 endangered, threatened, 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.*). **This letter only provides an official species list and technical assistance; if you determine that listed species and/or designated critical habitat may be affected in any way by the proposed project, even if the effect is wholly beneficial, consultation with the Service will be necessary.**

If you determine that this project will have no effect on listed species and their habitat in any way, then you have completed Section 7 consultation with the Service and may use this letter in your project file or application.

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. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found on our website.

Please visit our website at http://www.fws.gov/arkansas-es/IPaC/home.html for species-specific guidance to avoid and minimize adverse effects to federally endangered, threatened, proposed, and candidate species. Our web site also contains additional information on species life history and habitat requirements that may be useful in project planning.

If your project involves in-stream construction activities, oil and natural gas infrastructure, road construction, transmission lines, or communication towers, please review our project specific guidance at http://www.fws.gov/arkansas-es/IPaC/ProjSpec.html.

The karst region of Arkansas is a unique region that covers the **northern third of Arkansas** and we have specific guidance to conserve sensitive cave-obligate and bat species. **Please visit http://www.fws.gov/arkansas-es/IPaC/Karst.html to determine if your project occurs in the karst region and to view karst specific-guidance.** Proper implementation and maintenance of best management practices specified in these guidance documents is necessary to avoid adverse effects to federally protected species and often avoids the more lengthy formal consultation process.

If your species list includes any mussels, Northern Long-eared Bat, Indiana Bat, Yellowcheek Darter, Red-cockaded Woodpecker, or American Burying Beetle, your project may require a presence/absence and/or habitat survey prior to commencing project activities. Please check the appropriate species-specific guidance on our website to determine if your project requires a survey. We strongly recommend that you contact the appropriate staff species lead biologist (see office directory or species page) prior to conducting presence/absence surveys to ensure the appropriate level of effort and methodology.

Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make “no effect” determinations. If you determine that your proposed action will have “no effect” on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

Through the consultation process, we will analyze information contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take “after-the-fact.” For more information regarding formal consultation and HCPs, please see the Service’s Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

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.

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.**

Attachment(s):

- Official Species List

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:

Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
(501) 513-4470

Project Summary

Consultation Code: 04ER1000-2021-SLI-1023
Event Code: 04ER1000-2021-E-02870
Project Name: Dry Creek to Smyrna Transmission Line Project
Project Type: TRANSMISSION LINE
Project Description: Carroll Electric Cooperative Corporation (CECC) owns and operates an electrical transmission system in the state of Arkansas. CECC is planning to build the Dry Creek to Smyrna Transmission Line Project (Project) - an approximate 30.5-mile transmission line to connect the Smyrna Transmission/Distribution Substation to the Dry Creek Switching Station in northern Arkansas. The purpose of the Project is to resolve several contingencies and increase capacity for the system presently serving customers in the area. The proposed transmission line will be subject to review and approval by the Arkansas Public Service Commission (ARPSC) and will require National Environmental Policy Act (NEPA) review by the Rural Utilities Service (RUS).

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.220119750000066,-93.43137458002559,14z

Counties: Carroll and Madison counties, Arkansas

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 Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* 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/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10477

Piping Plover *Charadrius melodus*	Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.
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/6039

Red Knot *Calidris canutus rufa*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1864

Clams

NAME	STATUS
Rabbitsfoot *Quadrula cylindrica cylindrica*	Threatened

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/5165

Flowering Plants

NAME	STATUS
Missouri Bladderpod *Physaria filiformis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5361

Critical habitats

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

Arkansas Historic Preservation Program Correspondence

- **January 31, 2022 consultation letter from Jessica H. Cogburn (AHPP) to Jeff Smalley (CECC) regarding concurrence with Phase I Survey (#108765.01)**

- **October 28, 2021 consultation letter from Jessica H. Cogburn (AHPP) to Jeff Smalley (CECC) regarding concurrence with Phase I Survey (#108765)**

- **August 23, 2022 consultation letter from Jessica H. Cogburn (AHPP) to Jeff Smalley (CECC) regarding concurrence with Phase I/II Survey (#108765.03)**

Asa Hutchinson
Governor
Stacy Hurst
Secretary

January 31, 2022

Mr. Jeff Smalley
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
P.O. Box 4000
Berryville, Arkansas 72616

Re: Carroll and Madison County: General
Section 106 Review: USDA-RUS
Proposed Undertaking – Dry Creek to Smyrna Transmission Line Project
Cultural Resources Survey Report: *Phase I Archaeological Resources Investigation of 38 Access Roads and 6.98 Acres of the Dry Creek – Smyrna Transmission Line Project*
AHPP Tracking Number: 108765.01

Dear Mr. Smalley:

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the cultural resources survey report for the above-referenced undertaking in in Carroll and Madison counties, Arkansas. The proposed undertaking entails the development of an approximately 30.5-mile transmission line between the Smyrna Transmission-Distribution Substation and the Dry Creek Switching Station. Merjent, Inc. conducted an initial Phase I report, which the AHPP concurred with, of 391.52 acres, leaving 16.93 unsurveyed due to landowners not allowing access.

Access to four parcels (001-03815-003, 001-10638-000, 001-11247-000, and 001-11256-000) was later granted. Merjent conducted an additional Phase I Investigation on these properties, along with thirty-eight access roads, totaling at 26.95 acres surveyed. No new archeological sites were documented. One structure was located on Parcel 001-10638-000 (a partially torn down barn); Merjent recommends the structure is not eligible for the National Register of Historic Places (NRHP). The remaining 9.97 acres of the remaining easement are recommended to be surveyed as well, should access be granted.

Site 3MA0165 is located on Parcel 001-11247-000 and will be included in future Phase II eligibility testing report. Fourteen shovel tests were positive between this parcel and the neighboring one (001-11256-00) and the recovered artifacts will be discussed in the Phase II report, to be submitted as a companion report.

Based on the provided information, the AHPP concurs with the finding of **no historic properties affected pursuant to 36 CFR § 800.4(d)(1)** for the proposed undertaking within the APE for the **thirty-eight access roads as well as parcels 001-03815-003 and 001-10638-000** (Section 25, Township 18 North, Range 24 West in Carroll County and Section 18, Township 17, Range 25 West in Madison County, respectively). **Parcels 001-11247-000 and 001-11256-00** (Sections 14-15, Township 17 North, Range 26 West) are **excluded** from this finding due to site 3MA0165's undetermined NRHP eligibility status. Site 3MA0165 will be evaluated for NRHP eligibility upon the AHPP's review of the project's Phase II investigations.

Tribes that have expressed an interest in the area include the Cherokee Nation, the Delaware Nation, the Osage Nation, and the Shawnee Tribe. We recommend consultation in accordance with 36 CFR § 800.2(c)(2).

We appreciate the opportunity to review this undertaking. If you have any questions, please contact Kathryn Bryles of my staff at (501) 324-9784 or kathryn.bryles@arkansas.gov. Please refer to the AHPP Tracking Number above in any correspondence.

Sincerely,

for
Scott Kaufman
Director, AHPP

cc: Dr. Melissa Zabecki, Arkansas Archeological Survey

Asa Hutchinson
Governor
Stacy Hurst
Secretary

October 28, 2021

Mr. Jeff Smalley
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
PO Box 4000
Berryville, AR 72616

RE: Carroll and Madison Counties: General
Section 106 Review: USDA-RUS
Proposed Undertaking: Dry Creek to Smyrna Transmission Line Project
Cultural Resources Survey Report: *Phase I Archaeological Resources Investigation of the Dry Creek-Smyrna Transmission Project: Carroll and Madison Counties, Arkansas*
AHPP Tracking Number: 108765

Dear Mr. Smalley:

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the cultural resources survey report for the above-referenced undertaking in Carroll and Madison Counties, Arkansas. The proposed undertaking entails the development of an approximately 30.5-mile transmission line between the Smyrna Transmission-Distribution Substation and the Dry Creek Switching Station. The area of the proposed undertaking has seen an increase in the use of energy and this project would provide additional infrastructure to meet the growing need.

A phase I cultural resources survey was conducted by Merjent, Inc. archeologists of 391.52 acres within the area of potential effect (APE). The survey consisted of shovel testing where landowner access was granted in the project area. A total of 25 new archeological sites were recorded. 16.93 acres remain unsurveyed due to landowners not allowing access. If access is granted, it is recommended that these areas be surveyed as well.

A total of 468 shovel tests were excavated across the APE where ground conditions allowed. 16 historic sites, 8 precontact sites and 1 multi-component site were discovered.

Based on the provided information, we concur that sites 3CR0380, 3CR0381, 3CR0382, 3CR0384, 3CR0385, 3CR0386, 3CR0387, 3CR0388, 3MA0482, 3MA0484, 3MA0485, 3MA0486, 3CR0394, 3MA0487 and 3CR0395 are not eligible for the National Register of Historic Places (NRHP). We concur that sites 3CR0086, 3CR0383, 3CR0389, 3MA0483, 3CR0390, 3CR0393, 3MA0165 and 3CR0396 are considered undetermined for inclusion in the NRHP and that Phase II Investigations are recommended prior to implementation of the proposed undertaking to determine the NRHP status of the sites. We also concur that sites 3CR0391 and 3CR0392 are undetermined for inclusion in the NRHP but are located outside of the APE and therefore no further archeological investigation is needed.

Tribes that have expressed an interest in the area include the Cherokee Nation, the Delaware Nation, the Osage Nation, and the Shawnee Tribe. We recommend consultation in accordance with 36 CFR § 800.2(c)(2).

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, call Jessica Cogburn at 501-324-9357 or email jessica.cogburn@arkansas.gov.

Sincerely,

for
Scott Kaufman
Director, AHPP

cc: Dr. Melissa Zabecki, Arkansas Archeological Survey

Asa Hutchinson
Governor
Stacy Hurst
Secretary

August 23, 2022

Mr. Jeff Smalley, P. E.
Engineering Manager
Carroll Electric Cooperative Corporation
920 Highway 62 Spur
PO Box 4000
Berryville, AR 72616

RE: Carroll and Madison Counties: General
Section 106 Review: USDA-RUS
Project Undertaking: Dry Creek to Smyrna Transmission Line Project
CECC Project Numbers: CWP Projects #810 and #811
Merjent Cultural Resources Survey Report: *Phase II Archaeological Testing at Sites 3CR383, 3CR389, 3CR390, 3CR393, 3CR397, 3MA165, and 3MA483 for the Dry Creek – Smyrna Transmission Line Project, Carroll and Madison Counties, Arkansas*
AHPP Tracking Number: 108765.03

Dear Mr. Smalley:

The staff of the Arkansas Historic Preservation Program (AHPP) reviewed the Phase II archeological testing report for sites within the area of potential effect (APE) for the Dry Creek to Smyrna Transmission Line project in Carroll and Madison Counties, Arkansas. The undertaking consists of the construction of a 31.4 mile, 161-kV electric transmission line between the Smyrna Transmission/Distribution Substation in Madison County and the Dry Creek Switching Station in Carroll County. A Phase I cultural resources survey conducted by Merjent, Inc. resulted in the documentation of 23 archeological sites within the APE, 15 of which were recommended as not eligible for inclusion in the National Register of Historic Places (NRHP). The remaining eight sites were subjected to Phase II testing to determine their eligibility for the NRHP.

Six sites (3CR0383, 3CR0389, 3CR0393, 3CR0397, 3MA0165, and 3MA0483) are recommended as undetermined for inclusion in the NRHP. Portions of these sites lie outside the APE and were therefore not tested. The portions that fall within the APE have been thoroughly tested and Merjent believes no additional testing is needed. Sites 3CR0390 and 3CR0396 are both recommended as eligible for inclusion in the NRHP. Merjent recommends that these sites be avoided, and no ground disturbance occur within them. If avoidance is not possible, then limited ground disturbance (low-weight vehicle traffic) within the project workspace is suggested.

Based on the provided information, that AHPP concurs that sites 3CR0383, 3CR0389, 3CR0393, 3CR0397, 3MA0165, and 3MA0483 are undetermined for inclusion in the NRHP, but that there will be no effect to the

portions of the sites within the APE. The AHPP also concurs that sites 3CR0390 and 3CR0396 are eligible for inclusion in the NRHP and should be avoided during construction activities. If this is not possible, the AHPP would like to consult on how to minimize impacts to the sites during construction. If the sites can be avoided, the AHPP concurs that there will be no adverse effect to historic properties pursuant to 36 CFR § 800.5(b)(1) as a result of this undertaking.

Thank you for the opportunity to review this project identification form. If you have any questions, please contact Jessica Cogburn at 501-324-9357 or email jessica.cogburn@arkansas.gov.

Sincerely,

for
Scott Kaufman
Director, AHPP

cc: Dr. Melissa Zabecki, Arkansas Archeological Survey

ATTACHMENT C

WETLAND AND WATERBODY SURVEY REPORT

(Provided Under Separate Cover or ShareSite)

Natural Resources Conservation Service Correspondence

- **October 19, 2022 email correspondence from Rebecca Fox (NRCS) to Jeff Mackenthun (Merjent) regarding indirect effects to farmland soils**

From: Fox, Rebecca - NRCS, Little Rock, AR
To: Jeff Mackenthun
Subject: EXTERNAL: RE: [External Email]FPPA Farmland Impact Conversion - T-Line Project in Carroll and Madison Counties, AR
Date: Wednesday, October 19, 2022 1:51:02 PM
Attachments: image001.png

Mr. Mackenthun,

This email is in response to your request for information related to Prime Farmland and Farmland of Statewide Importance for the T-Line Project in Carroll and Madison Counties, Arkansas. This project will have an indirect effect and this activity will not prevent the land from being used in agriculture production and will not affect Prime Farmland or Farmland of Statewide Importance.

Let me know if you a completed CPA-106.

Rebecca

Rebecca Fox
Assistant State Soil Scientist – Arkansas
USDA Natural Resources Conservation Service
Office: (501) 301-3180
Cell: (501) 516-4924

From: Jeff Mackenthun <jeff.mackenthun@merjent.com>
Sent: Wednesday, October 19, 2022 1:43 PM
To: Fox, Rebecca - NRCS, Little Rock, AR <rebecca.fox@usda.gov>
Subject: [External Email]FPPA Farmland Impact Conversion - T-Line Project in Carroll and Madison Counties, AR

Ms. Fox,
I am a consultant working for Carroll Electric Cooperative who is proposing to construct and operate the Dry Creek to Smyrna Transmission Line Project (Project), which consists of approximately 31.4 miles of new 161 kilovolt (kV) overhead transmission line between the Dry Creek Switching Station in Carroll County to the Smyrna Transmission-Distribution Substation in Madison County. CECC is requesting finance assistance from the USDA Rural Utilities Service (RUS) for the Project. RUS policy directs applicants to consult with the NRCS office regarding the unnecessary and irreversible conversion of farmland to nonagricultural uses.

Regarding the Project, 39% of the route is pasture/hayland and the remaining is forest, mixed forest,

or open space. No rotated cropland is crossed. No aboveground facilities (e.g., substations, switching stations) or permanent graveled access roads are proposed. Impacts to farmland are limited to the placement of 7 H-frame transmission structures within Prime Farmland, 21 structures within Farmland of Statewide Importance, and 2 structures within Prime Farmland if drained. We are seeking clarification on whether the proposed activities would require completion of a Farmland Conversion Impact Rating form. Your guidance and direction is appreciated. Thank-you Ms. Fox and the NRCS.

Jeff Mackenthun
612.810.4795 mobile

merjent
1 Main Street SE, Suite 300
Minneapolis, MN 55414

Arkansas Department of Environmental Quality
Correspondence

- **September 28, 2022 email correspondence from Jim Wise (ADEQ) to Jeff Mackenthun (Merjent) regarding Section 401 Water Quality Certification**

- **October 3, 2022 email correspondence from Ralph Ungerank (ADEQ) to Jeff Mackenthun (Merjent) regarding Short Term Activity Authorization**

From: Jim Wise (adpce.ad)
To: Jeff Mackenthun
Subject: RE: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC
Date: Wednesday, September 28, 2022 12:22:22 PM
Attachments: image001.png
image003.png

Mr. Mackenthun,

The COE makes the determination as to issue a nationwide or individual 404 permit based on criteria which you listed below. Because they are issuing a NWP for the project an individual 401 water quality certification from DEQ is not needed. However, if for any reason there becomes a need to enter a waterbody listed as an outstanding state resource, DEQ and the COE will need to be contacted prior to entering the waterbody.

Your email has been forwarded to Mr. Colby Ungerank, in the Office of Water Quality. He will address you question concerning Short Term Activity Authorizations.

Feel free to email or call any of us at any time if you have questions or need assistance.

Jim

Jim Wise | Ecologist Coordinator
Division of Environmental Quality | Office of Water Quality
Water Quality Planning Branch
5301 Northshore Drive | North Little Rock, AR 72118
t: 501.682.0663 | e: wise@adeq.state.ar.us

From: Jeff Mackenthun [mailto:jeff.mackenthun@merjent.com]
Sent: Tuesday, September 27, 2022 10:02 AM
To: Jim Wise (adpce.ad)
Cc: Steven Cummings; Jeff Smalley; Don Callaway; Anderson, Dennis - RD, Greenbrier, AR; david.m.rupe@usace.army.mil
Subject: RE: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC

Mr. Wise,
On September 16, you were copied on a Preconstruction Notification (PCN) that was filed with the COE for Carroll Electric Cooperative Corporation's (CECC) Dry Creek to Smyrna Transmission Line Project (Project). I have attached a copy of the PCN. The Project will consist of 31.4 miles of new 161 kilovolt transmission line between the Dry Creek Switching Station in Carroll County to the Smyrna Transmission-Distribution Substation in Madison County. CECC would utilize a 100-foot-wide right-of-way to construct the transmission line (50 feet on either side of the line), additional right-of-way to install guy wires, and temporary construction access roads to construct the transmission line. Note that we had some previous communication on this Project back in March 2022, per the email chain below. Based on our PCN filing with the COE, we are seeking confirmation on Section 401 and STAA permitting requirements for the Project.

Regarding Section 401 Certification, we understand that 401 Certification is granted for activities conducted under Nationwide Permit 57. We also understand that impacts to extraordinary waters such as the Kings River may require individual 401 certification. However, as outlined in the PCN, we do not propose to impact the bed or bank of the river and would complete the stringing and spanning of the electric lines without impacting the river. We are developing a SWPPP to manage soils during installation of the transmission line structures. The transmission line structures on either side of the river are currently designed to be greater than 200 feet from the river. Considering these deign and mitigation measures, we would like confirmation that individual 401 Certification would not be required for the Project if CECC completes Project activities under Nationwide Permit 57, its general conditions, and the Nationwide Permit Regional Conditions for the State of Arkansas.

Regarding STAA requirements, no dredge or fill activities are proposed within the bed or banks of any waterbody. Larger perennial streams including Osage Creek, Dry Fork, Kings River, and War Eagle Creek will not be crossed other than overhead stringing of wire. CECC will obtain access to each side of these perennial waterbodies by using temporary access roads or the Project's ROW from existing public roads to install structures on either side of perennial waterbodies. Transmission wire would be strung across perennial waterbodies via wading, a rope and pulley system, or crane or derrick truck arms operating from the bank of the waterbody. Other than hand felling of woody vegetation, no disturbances to the bed or banks of perennial waterbodies is anticipated. In certain instances, smaller perennial waterbodies (i.e., <12 feet in width) may be crossed using temporary equipment bridges. CECC will make every attempt to cross intermittent or ephemeral waterbodies during dry conditions, or utilize access roads or public roads to conduct project activities from either side of these waterbodies if they are flowing. If an intermittent or ephemeral waterbody must be crossed during wet conditions, a temporary crossing bridge would be placed above the ordinary high-water mark of the waterbody and appropriate spanning or culverts would be used to maintain surface flows. Temporary bridges would be removed once Project activities are completed along that portion of the Project. As mentioned above, we will implement a SWPPP to manage soils and stormwater during the Project.

Considering these design and mitigation measures, we do not believe the Project would violate water quality standards, affect any beneficial use designations, or temporarily increase or lead to stream impairments, and are seeking confirmation that STAA is not required for the Project.

If you require additional information to determine a path forward, please contact us. We would be happy to discuss this project in more detail with you or the COE. We have copied David Rupe from the COE, whom we anticipate will be reviewing this Project.
Thank-you Mr. Wise, we look forward to your reply.

Jeff Mackenthun
Merjent, Inc.
612.810.4795

From: Wise, Jim <WISE@adeq.state.ar.us>
Sent: Wednesday, March 2, 2022 11:27 AM
To: Jeff Mackenthun <jeff.mackenthun@merjent.com>
Cc: Steven Cummings <SCummings@carrollecc.com>; Jeff Smalley <JSmalley@carrollecc.com>; Kory Armstrong <kory.armstrong@merjent.com>
Subject: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC

Mr. Mackenthun,

Thank you for getting in touch with us well in advance of the implementation of this project. It is much easier to review applications when we are familiar with projects in advance.

We certainly can discuss the project and the 401 application at any time. Section 401 permits are generally issued after or about the same time as the 404 permit, usually not before. We do coordinate with the COE on these applications which helps to speed up the permitting process. Including the COE Project Manager contact info with the application is very helpful.

Regarding the 401 and SWPPP applications, discuss how the transmission lines will be stretched across the waterbodies along the route without actually entering the waterbodies. This will help to determine that a short term activity authorization (STAA) may not needed. It will also be helpful to include higher resolution topo maps because the lines will be crossing a critical ground water recharge zone just to the north and east of Huntsville, and the entire route is located within karst geology.

Please don't hesitate to call or email at any time.

Jim

Jim Wise | Ecologist Coordinator
Division of Environmental Quality | Office of Water Quality
Water Quality Planning Branch
5301 Northshore Drive | North Little Rock, AR 72118
t: 501.682.0663 | e: wise@adeq.state.ar.us

ARKANSAS ENERGY & ENVIRONMENT

From: Jeff Mackenthun [mailto:jeff.mackenthun@merjent.com]
Sent: Wednesday, March 2, 2022 9:36 AM
To: Wise, Jim
Cc: Steven Cummings; Jeff Smalley; Kory Armstrong
Subject: Proposed Powerline in Madison County - Kings River Crossing and WQC

Mr. Wise,
I am an environmental consultant working for Carroll Electric Corporative who is proposing to install 31.4 miles of new 161 kilovolt (kV) transmission line in Carroll and Madison Counties. A project overview map is attached. We have begun discussion with David Rupe (COE) regarding CWA Section 404 authorization and understand the Project will be authorized under NWP 57. We understand that in 2020 the ADEQ re-issued Section 401 WQC for all NWPs in Arkansas with conditions, specifically, "*an individual water quality certification request must be submitted to DEQ for activities which may impact Extraordinary Resource Waters, Ecologically Sensitive Waterbodies, and Natural Scenic Waterways as identified in APC&EC Rule 2*". The proposed T-line crosses the Kings River which is designated as an extraordinary resource water and natural scenic waterway by the State of Arkansas. We would like to coordinate with you to ensure compliance with Section 401.

Regarding the Kings River crossing, proposed structures are sited outside the OHWM, see below. The proposed T-line will be placed adjacent to an existing electric distribution line. Tree clearing and removal will occur within the 100-foot-wide easement, root systems will remain in place. Equipment will not cross the Kings River and no bridging is proposed. We propose to develop a Project SWPPP for compliance with NPDES construction SW requirements. Considering these design and installation measures, we do not anticipate any water quality concerns or impacts on the Kings River.

We will be submitting a preconstruction notification (PCN) to the COE to request authorization under NWP 57. With our PCN to the COE, we would like to include confirmation from your office that the Project has been designed to comply with water quality standards and WQC has been granted for the Project. We are happy to discuss this in further detail and please let us know how you would like to proceed. Thank-you Mr. Wise.

Jeff Mackenthun
612.810.4795 mobile

1 Main Street SE, Suite 300
Minneapolis, MN 55414

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From: Ralph Ungerank (adpce.ad)
To: Jeff Mackenthun
Cc: Jim Wise (adpce.ad)
Subject: RE: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC
Date: Monday, October 3, 2022 10:29:27 AM
Attachments: image001.png
image003.png

Jeff,

Based on the information outlined below regarding the STAA, DEQ will not require CECC to obtain a STAA. If a STAA is not obtained by CECC, CECC does not have the authority to exceed any Arkansas Water Quality Standards.

Colby

From: Jim Wise (adpce.ad)
Sent: Wednesday, September 28, 2022 12:05 PM
To: Ralph Ungerank (adpce.ad) <Ralph.Ungerank@adeq.state.ar.us>
Subject: FW: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC

Colby,

Will you address the STAA question?

Thanks

Jim

From: Jeff Mackenthun [mailto:jeff.mackenthun@merjent.com]
Sent: Tuesday, September 27, 2022 10:02 AM
To: Jim Wise (adpce.ad)
Cc: Steven Cummings; Jeff Smalley; Don Callaway; Anderson, Dennis - RD, Greenbrier, AR; david.m.rupe@usace.army.mil
Subject: RE: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC

Mr. Wise,
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Regarding Section 401 Certification, we understand that 401 Certification is granted for activities conducted under Nationwide Permit 57. We also understand that impacts to extraordinary waters such as the Kings River may require individual 401 certification. However, as outlined in the PCN, we do not propose to impact the bed or bank of the river and would complete the stringing and spanning of the electric lines without impacting the river. We are developing a SWPPP to manage soils during installation of the transmission line structures. The transmission line structures on either side of the river are currently designed to be greater than 200 feet from the river. Considering these deign and mitigation measures, we would like confirmation that individual 401 Certification would not be required for the Project if CECC completes Project activities under Nationwide Permit 57, its general conditions, and the Nationwide Permit Regional Conditions for the State of Arkansas.

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Considering these design and mitigation measures, we do not believe the Project would violate water quality standards, affect any beneficial use designations, or temporarily increase or lead to stream impairments, and are seeking confirmation that STAA is not required for the Project.

If you require additional information to determine a path forward, please contact us. We would be happy to discuss this project in more detail with you or the COE. We have copied David Rupe from the COE, whom we anticipate will be reviewing this Project.
Thank-you Mr. Wise, we look forward to your reply.

Jeff Mackenthun
Merjent, Inc.
612.810.4795

From: Wise, Jim <WISE@adeq.state.ar.us>
Sent: Wednesday, March 2, 2022 11:27 AM
To: Jeff Mackenthun <jeff.mackenthun@merjent.com>
Cc: Steven Cummings <SCummings@carrollecc.com>; Jeff Smalley <JSmalley@carrollecc.com>; Kory Armstrong <kory.armstrong@merjent.com>
Subject: EXTERNAL: RE: Proposed Powerline in Madison County - Kings River Crossing and WQC

Mr. Mackenthun,

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Please don't hesitate to call or email at any time.

Jim

Jim Wise | Ecologist Coordinator
Division of Environmental Quality | Office of Water Quality
Water Quality Planning Branch
5301 Northshore Drive | North Little Rock, AR 72118
t: 501.682.0663 | e: wise@adeq.state.ar.us

ARKANSAS ENERGY & ENVIRONMENT

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Sent: Wednesday, March 2, 2022 9:36 AM
To: Wise, Jim
Cc: Steven Cummings; Jeff Smalley; Kory Armstrong
Subject: Proposed Powerline in Madison County - Kings River Crossing and WQC

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We will be submitting a preconstruction notification (PCN) to the COE to request authorization under NWP 57. With our PCN to the COE, we would like to include confirmation from your office that the Project has been designed to comply with water quality standards and WQC has been granted for the Project. We are happy to discuss this in further detail and please let us know how you would like to proceed. Thank-you Mr. Wise.

Jeff Mackenthun
612.810.4795 mobile

1 Main Street SE, Suite 300
Minneapolis, MN 55414

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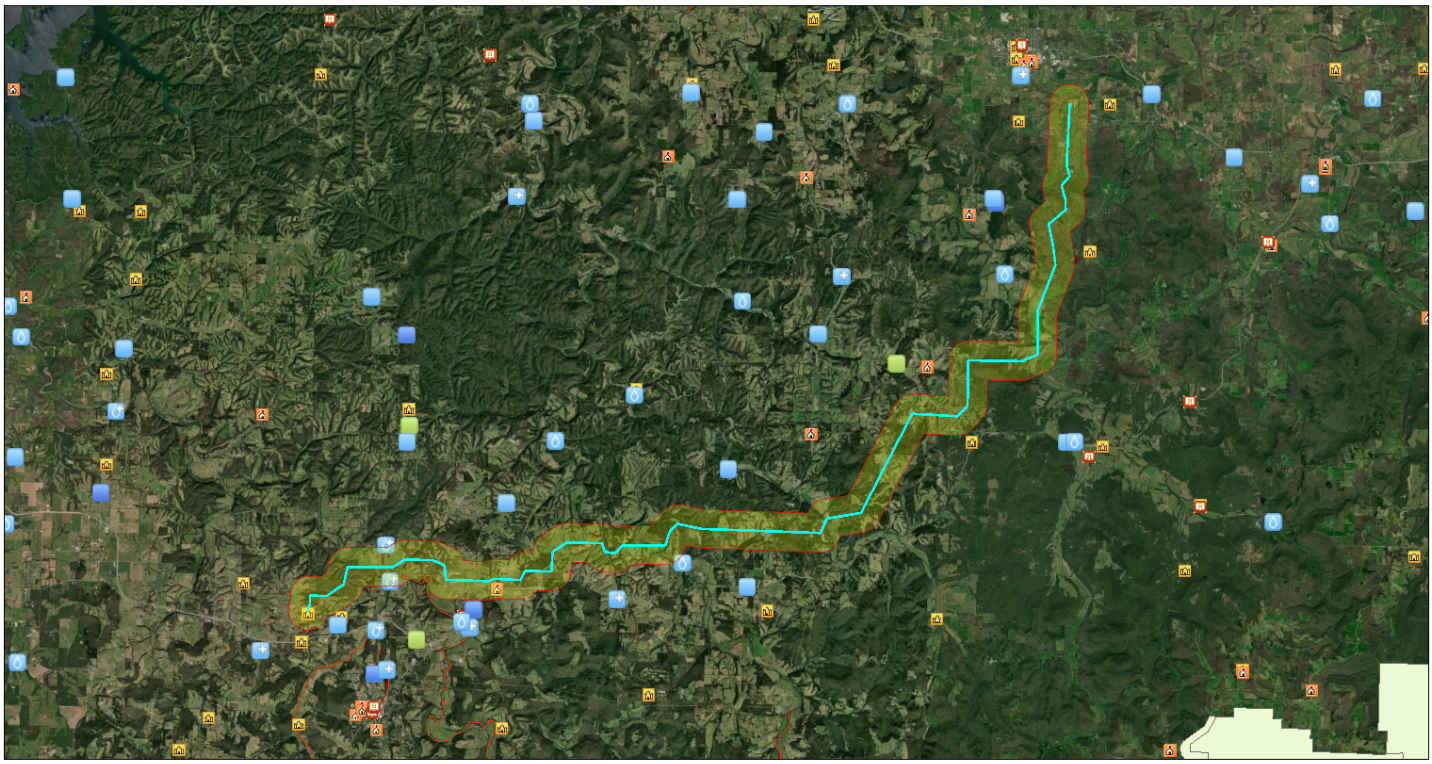
Appendix C

NEPAssist Report and Federal Database Review

NEPAssist Report

Dry Creek To Smyrna NEPAssist



Input Coordinates: 36.314689,-93.413570,36.292088,-93.414926,36.287657,-93.413588,36.285310,-93.416327,36.283898,-93.417226,36.279003,-93.415501,36.275150,-93.415384,36.269755,-93.423298,36.261809,-93.421277,36.254587,-93.420145,36.237316,-93.428410,36.221091,-93.428401,36.218656,-93.435875,36.218990,-93.460480,36.202073,-93.460812,36.198093,-93.465510,36.199057,-93.486396,36.162020,-93.510130,36.159902,-93.525949,36.154491,-93.528841,36.156029,-93.583872,36.157878,-93.594966,36.155289,-93.598560,36.149936,-93.600671,36.149820,-93.620559,36.146839,-93.624063,36.147455,-93.628707,36.150676,-93.630019,36.150894,-93.646395,36.147470,-93.652872,36.140179,-93.653465,36.140223,-93.665826,36.136900,-93.667622,36.137379,-93.679875,36.136465,-93.682157,36.137038,-93.702306,36.142428,-93.702953,36.144343,-93.708415,36.144525,-93.721413,36.141782,-93.726695,36.141732,-93.747797,36.135268,-93.749557,36.130936,-93.757526,36.131125,-93.765170,36.127671,-93.765161,36.126532,-93.765997,36.125408,-93.766060

Length of digitized line	31.38 mi
Within 0.5 miles of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a Federal Land?	no
Within 0.5 miles of an impaired stream?	yes
Within 0.5 miles of an impaired waterbody?	no
Within 0.5 miles of a waterbody?	yes
Within 0.5 miles of a stream?	yes

Within 0.5 miles of an NWI wetland?	Available Online
Within 0.5 miles of a Brownfields site?	no
Within 0.5 miles of a Superfund site?	no
Within 0.5 miles of a Toxic Release Inventory (TRI) site?	no
Within 0.5 miles of a water discharger (NPDES)?	yes
Within 0.5 miles of a hazardous waste (RCRA) facility?	no
Within 0.5 miles of an air emission facility?	no
Within 0.5 miles of a school?	yes
Within 0.5 miles of an airport?	no
Within 0.5 miles of a hospital?	no
Within 0.5 miles of a designated sole source aquifer?	no
Within 0.5 miles of a historic property on the National Register of Historic Places?	no
Within 0.5 miles of a Toxic Substances Control Act (TSCA) site?	no
Within 0.5 miles of a Land Cession Boundary?	yes
Within 0.5 miles of a tribal area (lower 48 states)?	no
Within 0.5 miles of the service area of a mitigation or conservation bank?	yes
Within 0.5 miles of the service area of an In-Lieu-Fee Program?	no
Within 0.5 miles of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 0.5 miles of a Munitions Response Site?	no
Within 0.5 miles of an Essential Fish Habitat (EFH)?	no
Within 0.5 miles of a Habitat Area of Particular Concern (HAPC)?	no
Within 0.5 miles of an EFH Area Protected from Fishing (EFHA)?	no
Within 0.5 miles of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 0.5 miles of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within 0.5 miles of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

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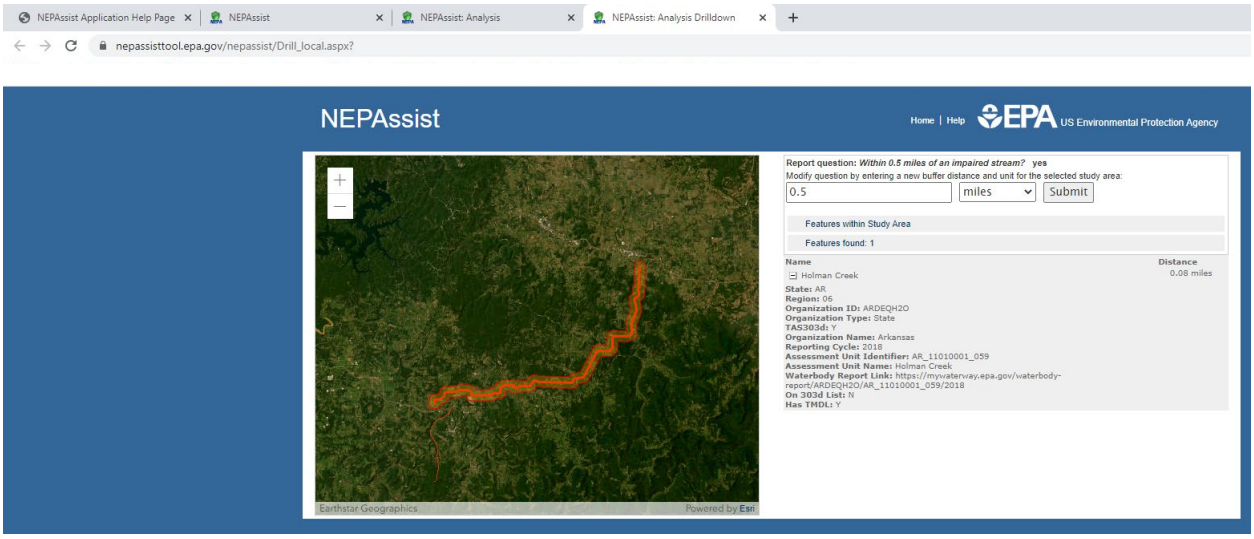
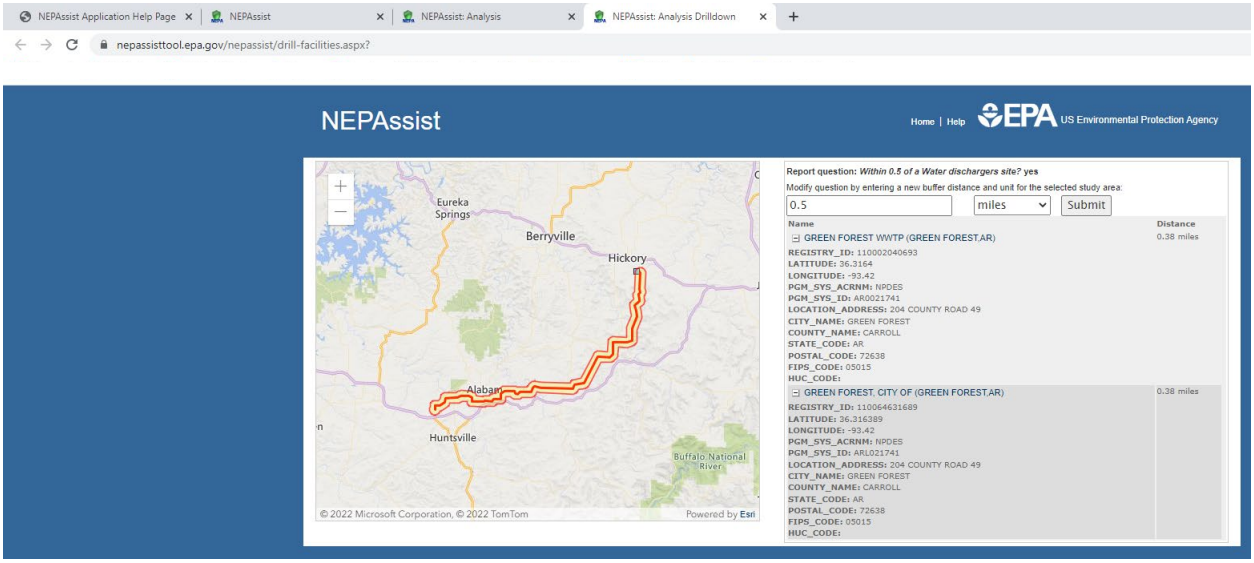
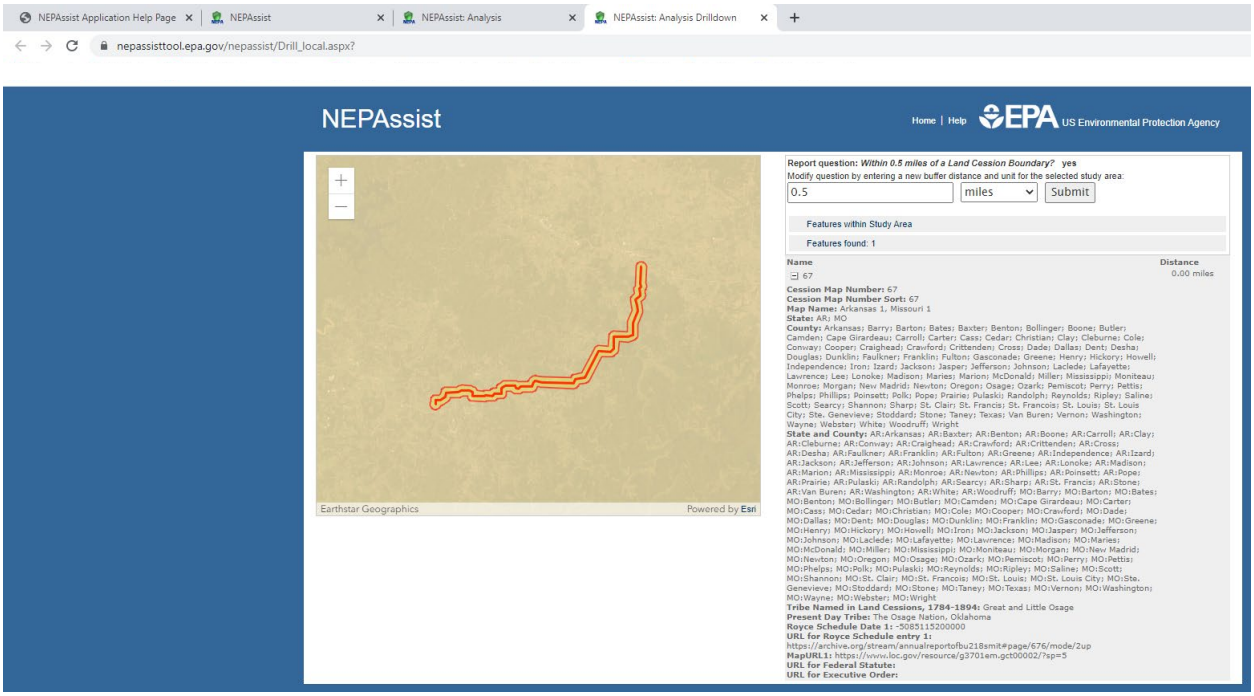
1) Within 0.5 miles of an impaired stream: Holman Creek. Holman Creek is not crossed by the Project.



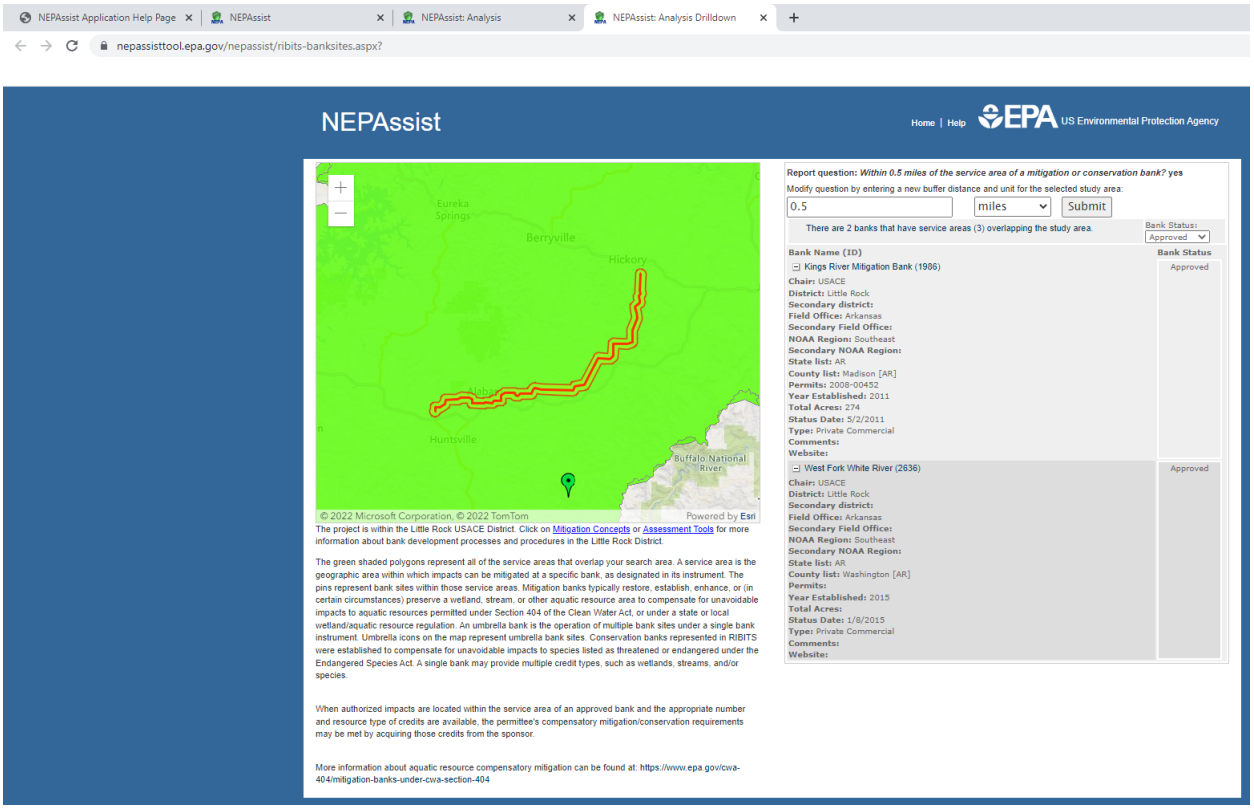
2) Within 0.5 miles of a water Discharger: Green Forest Waste Water Treatment Plant / City of Green Forest.



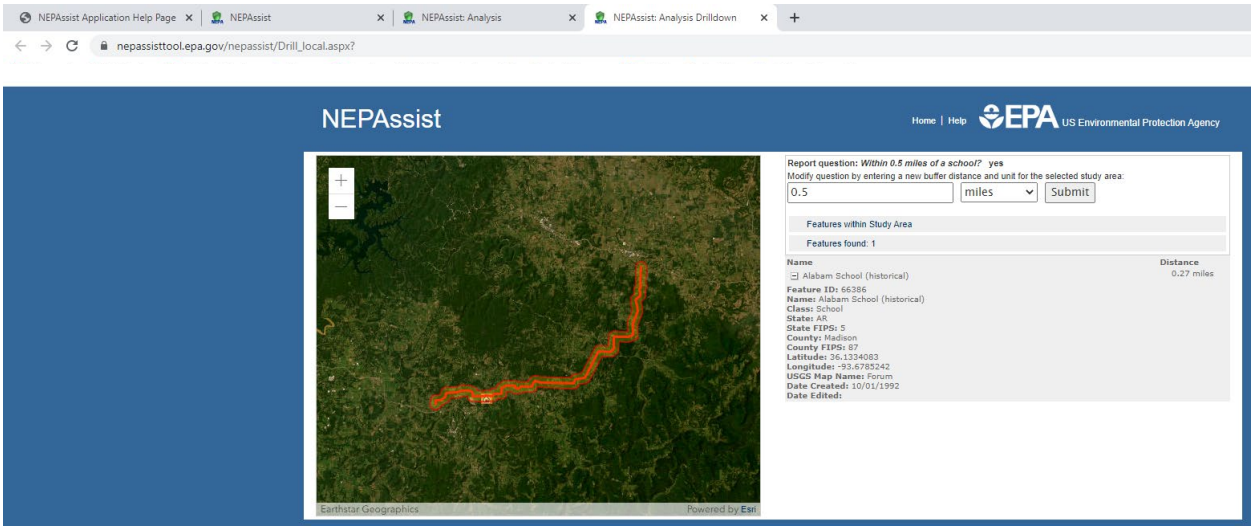
3) Within 0.5 miles of a land cession boundary: The Osage Nation, Oklahoma



4) Within 0.5 miles of the service area of a mitigation or conservation bank: Kings River Mitigation Bank and West Fork White River. Green polygons signify a geographic area within which Waters of the U.S. impacts can be mitigated at a specific mitigation bank.

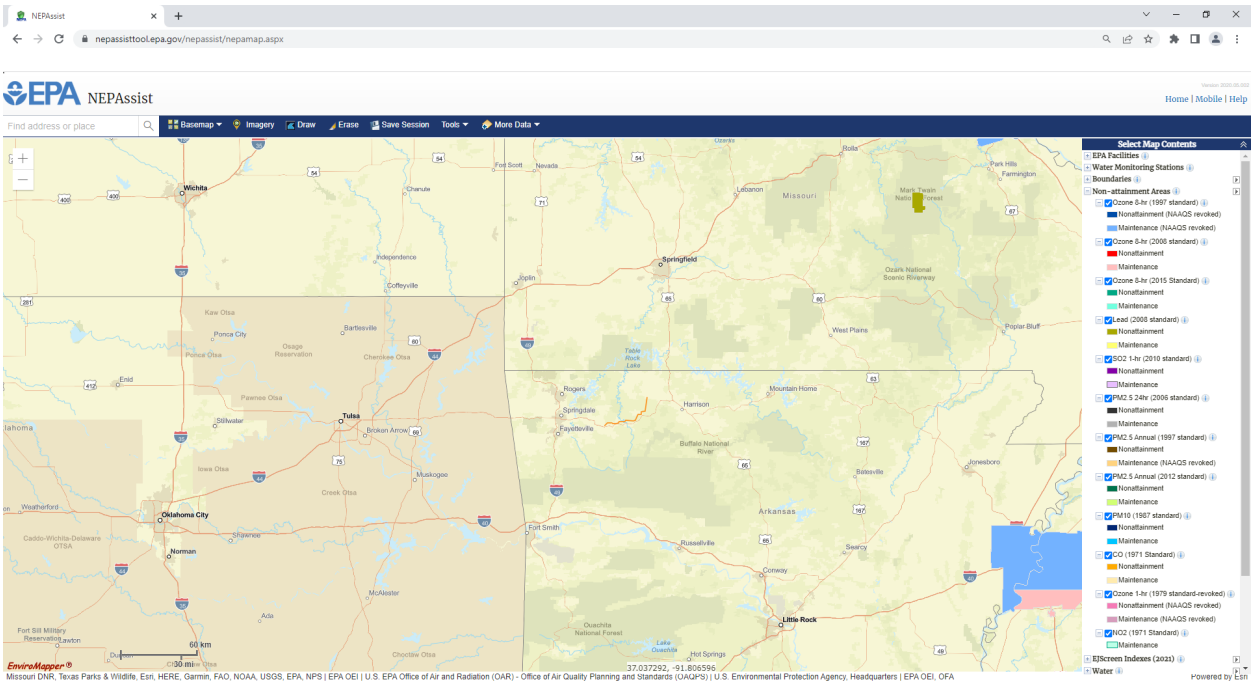


5) Within 0.5 miles of a school: Historic Alabam School

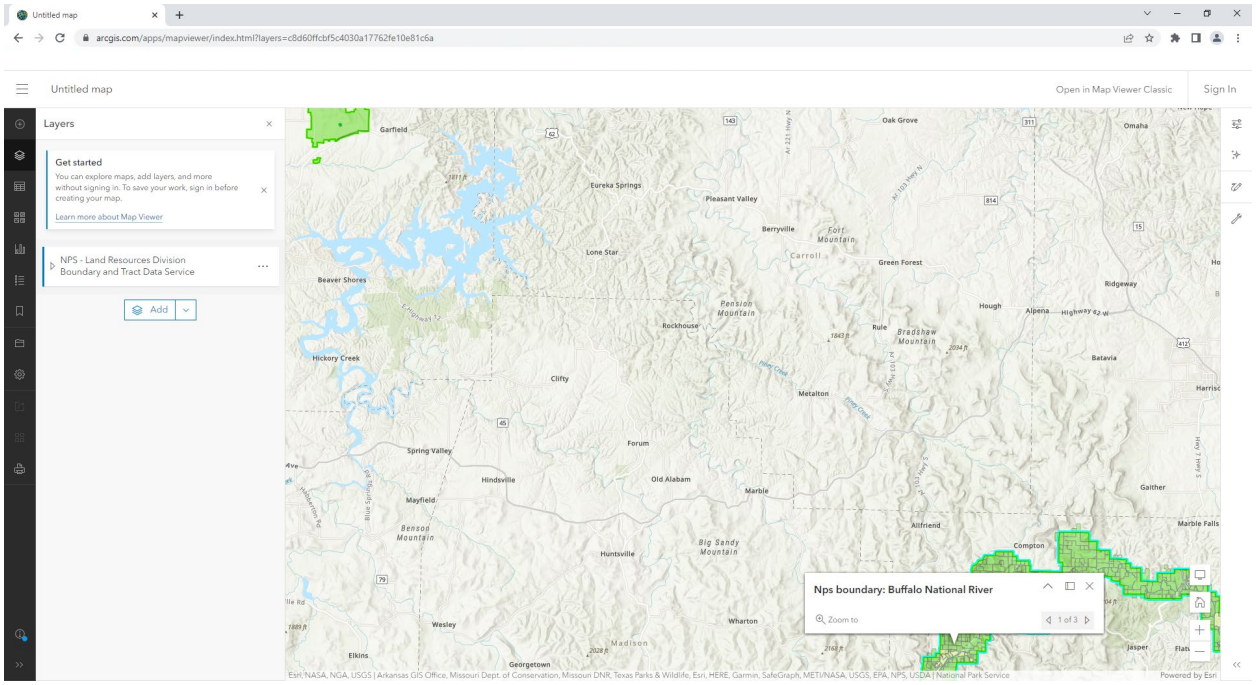


* Waterbody, stream, and National Wetlands Inventory (NWI) data that was identified as being within 0.5 miles of the Project are included in Wetland and Waterbody Survey Report provided in Appendix E of this Environmental Assessment.

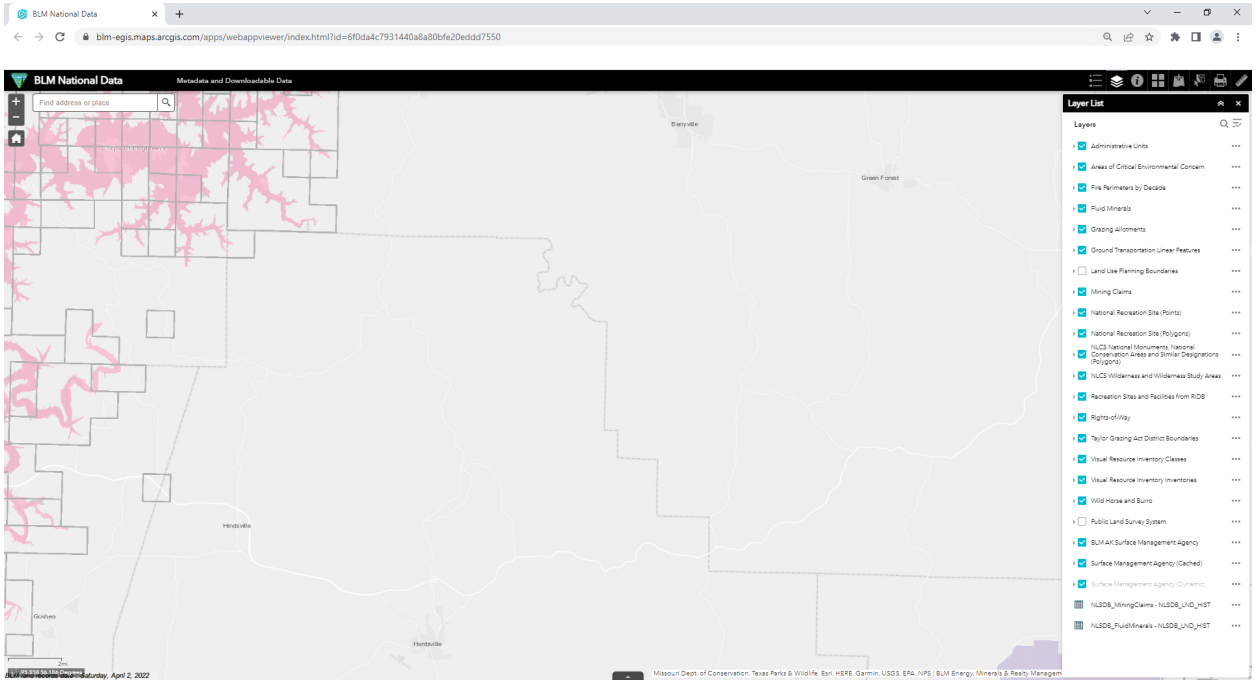
6) Air Quality Non-Attainment Areas Closest to the Project



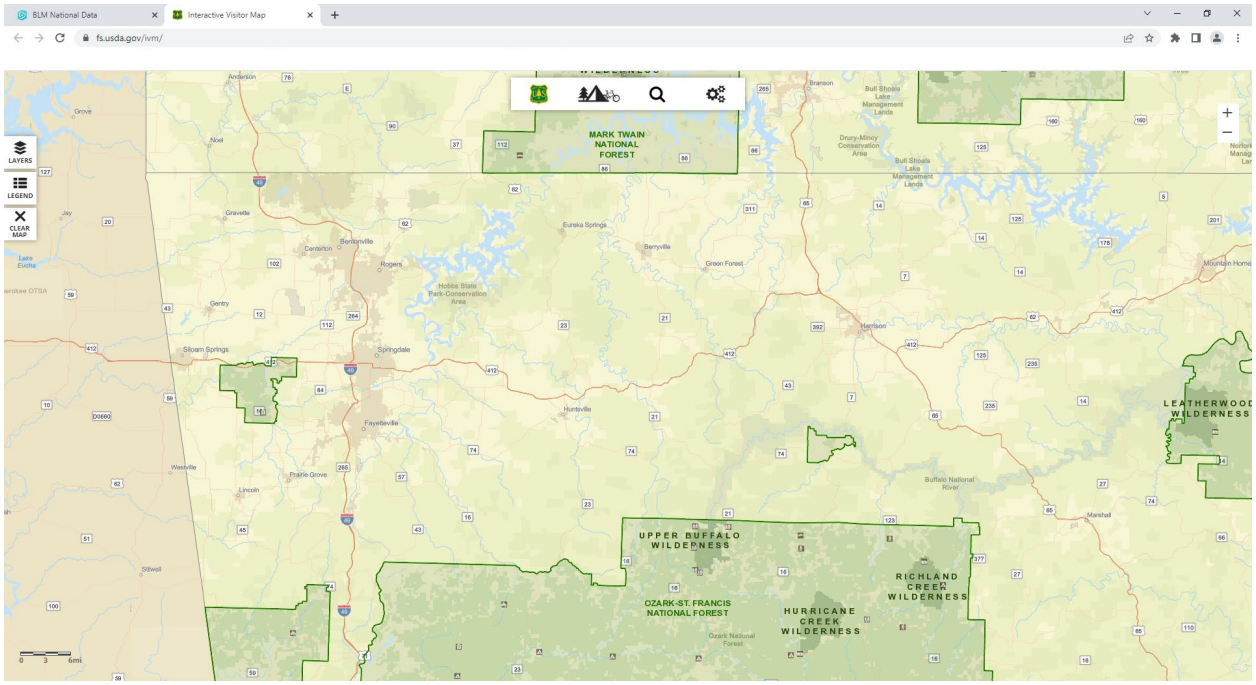
National Park Service Land Resources Division Boundary and Tract Data Service:



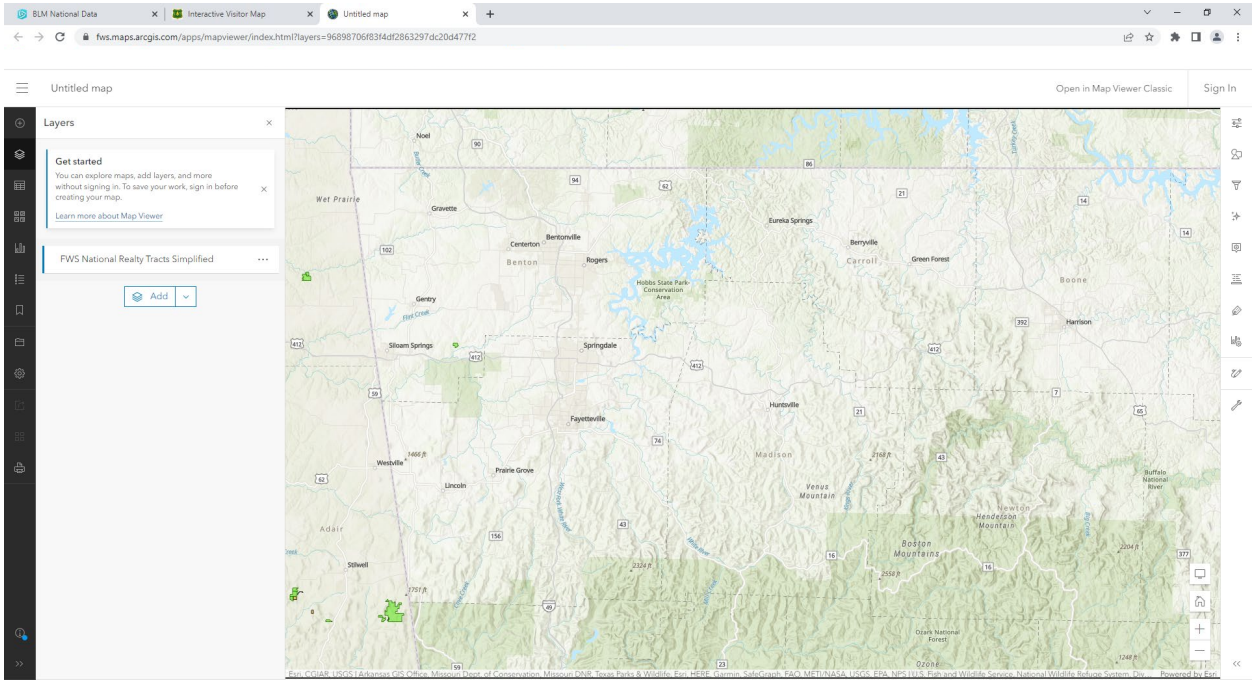
BLM National Data Map Viewer:



U.S. Forest Service National Forest System Interactive Map:



U.S. Forest Service Realty Tracts

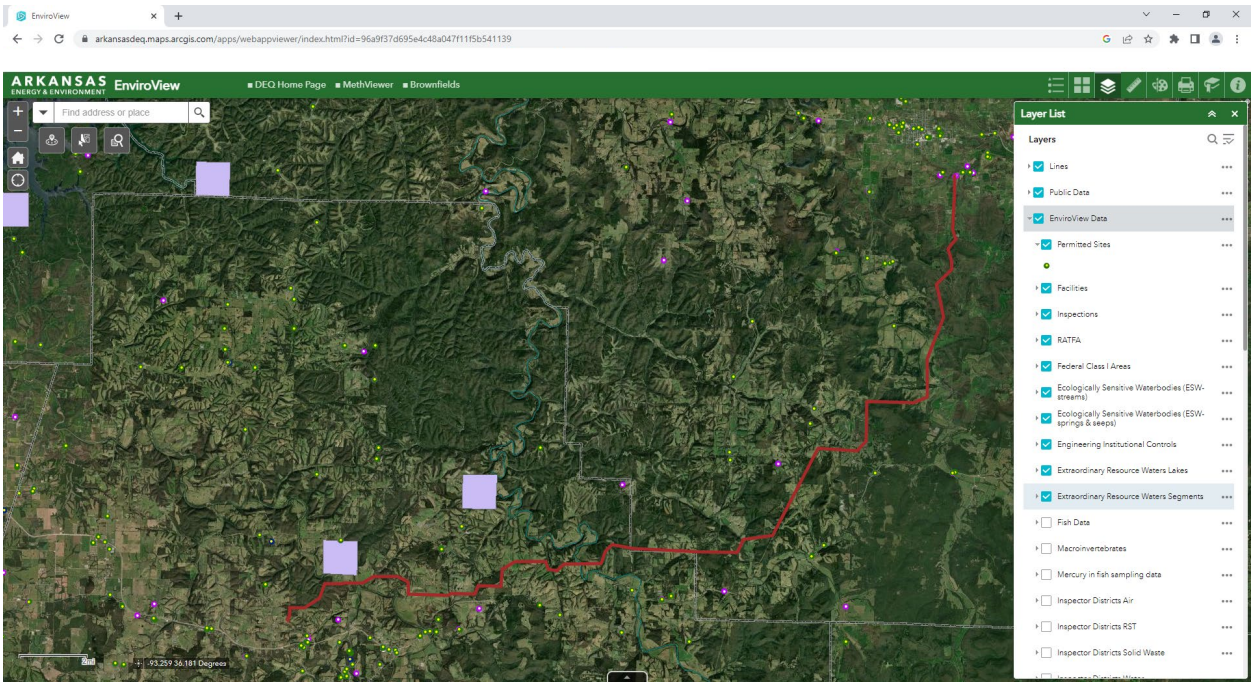


Appendix D

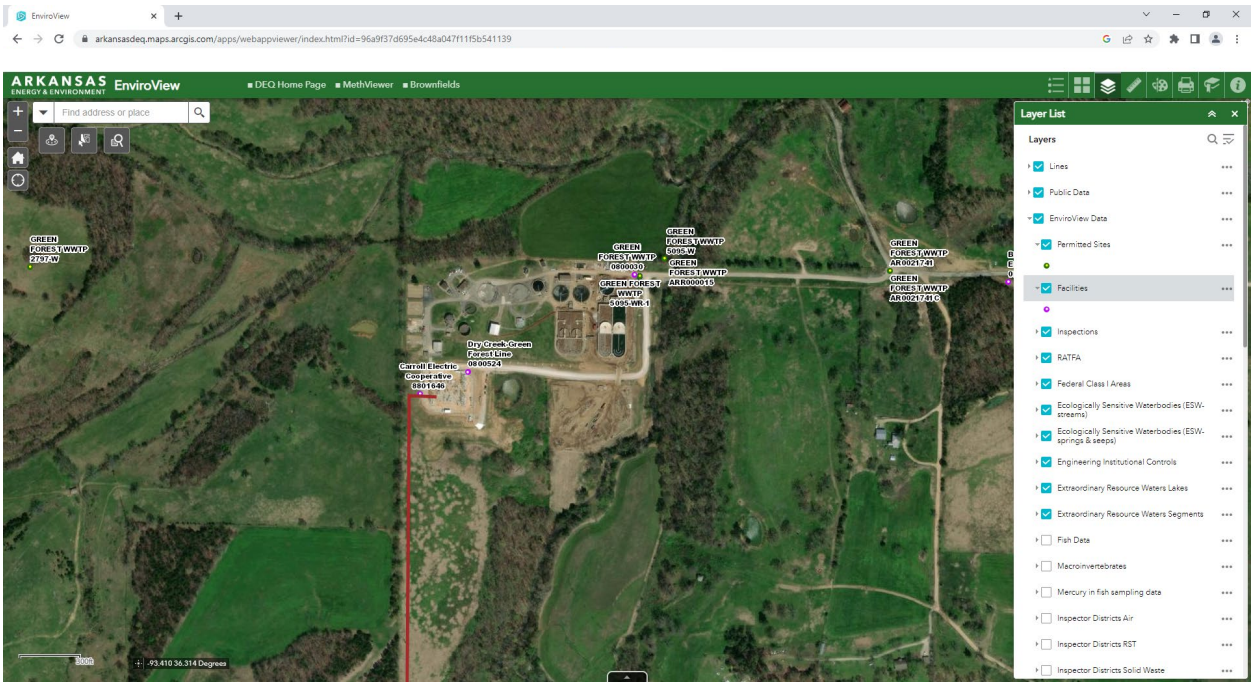
Arkansas Department of Environmental Quality and Arkansas GIS Office Database Reviews

DEQ EnviroView Database

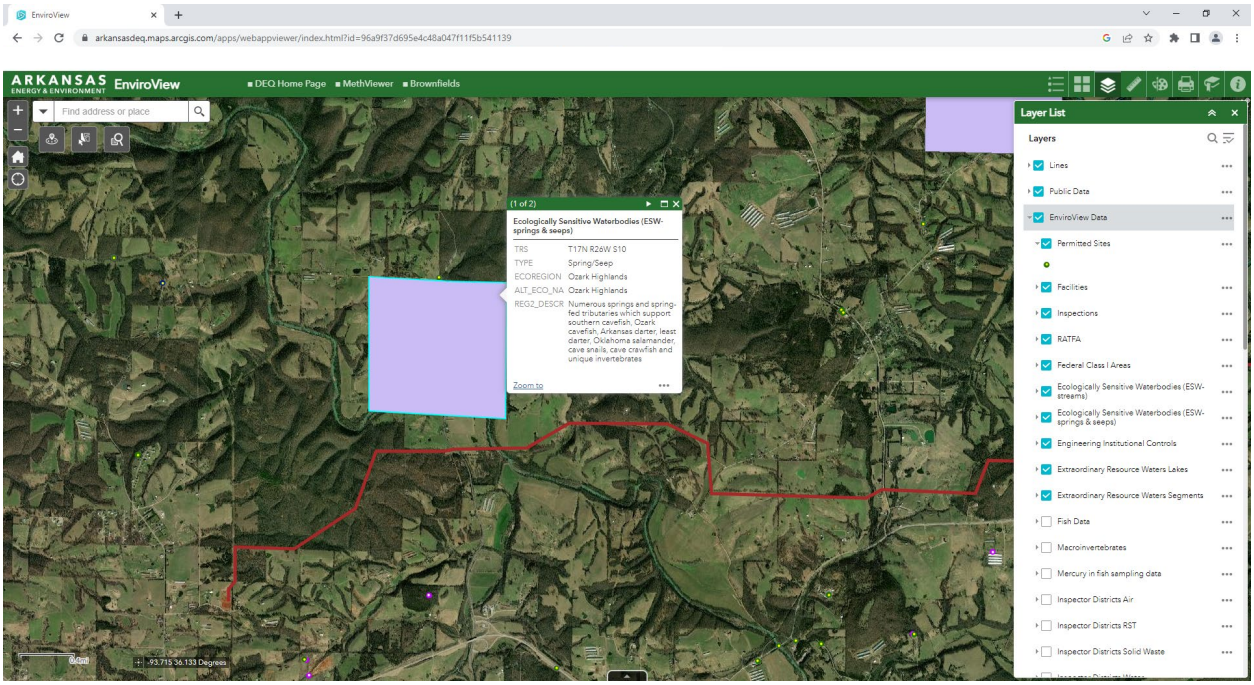
Permitted Discharge Facilities and Extraordinary Waters



Location of Previously Permitted Construction and Industrial Discharge Sites

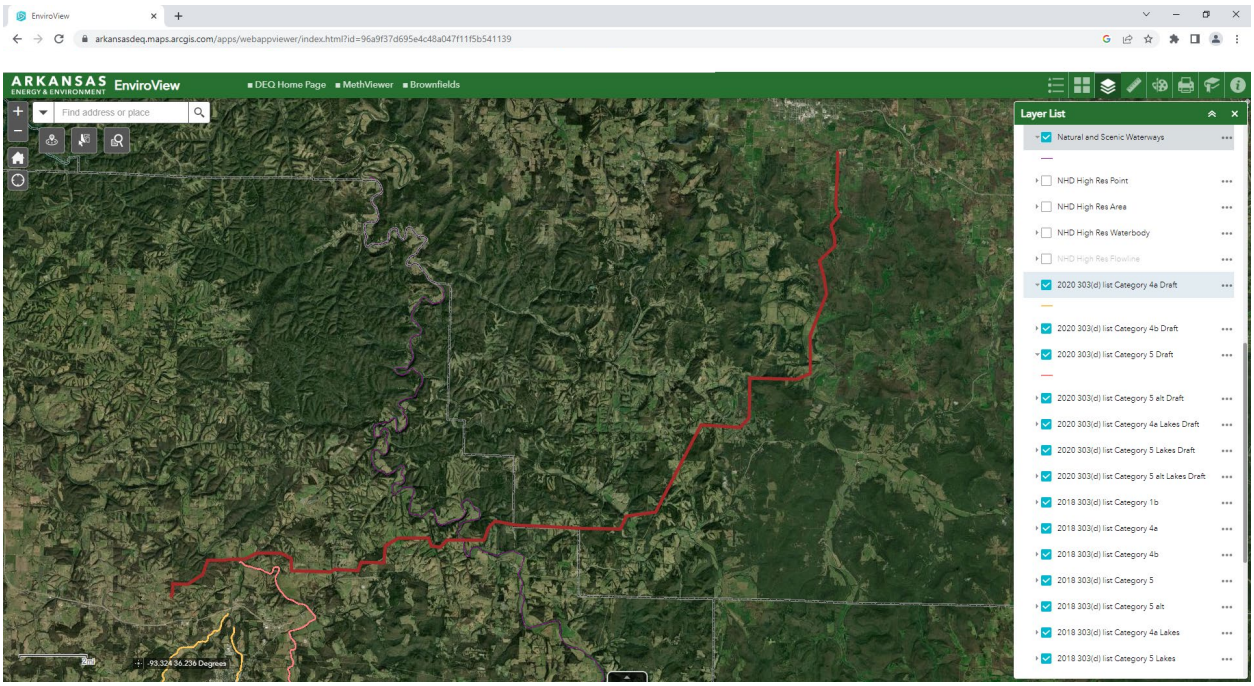


Attribute Data for Ecologically Sensitive Waterbody – Springs and Seeps

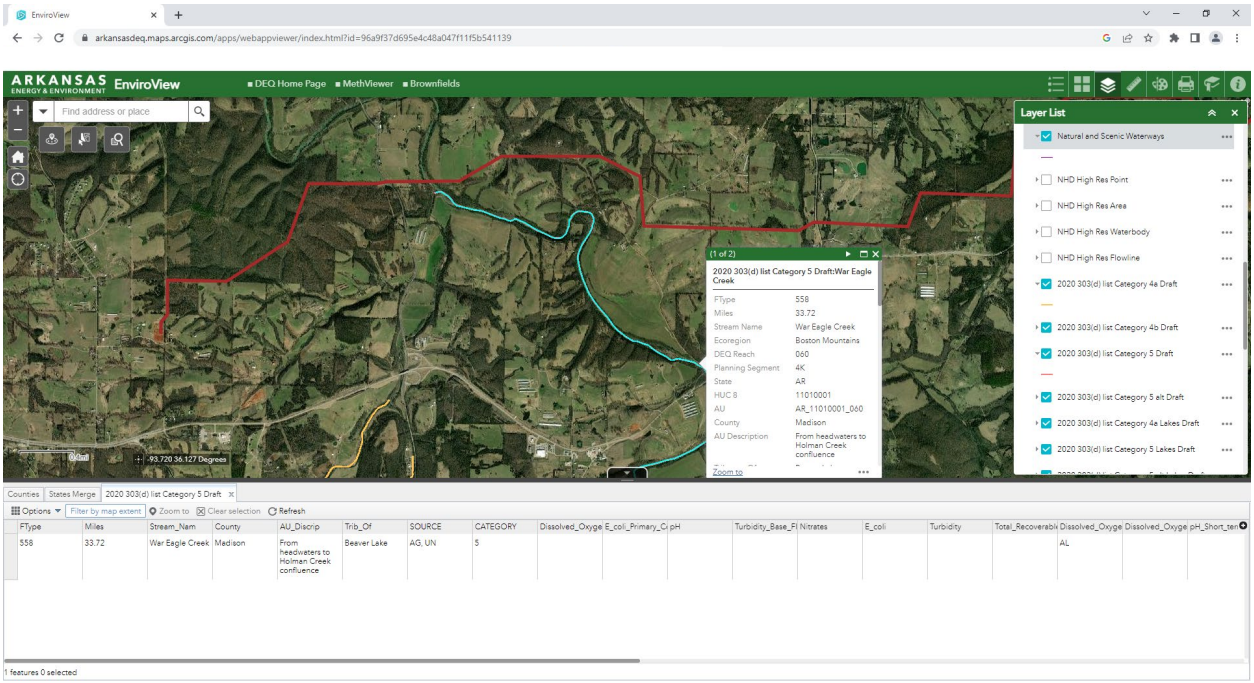


<u>DEQ EnviroView Database</u>

Natural and Scenic Waterways and Impaired Waters

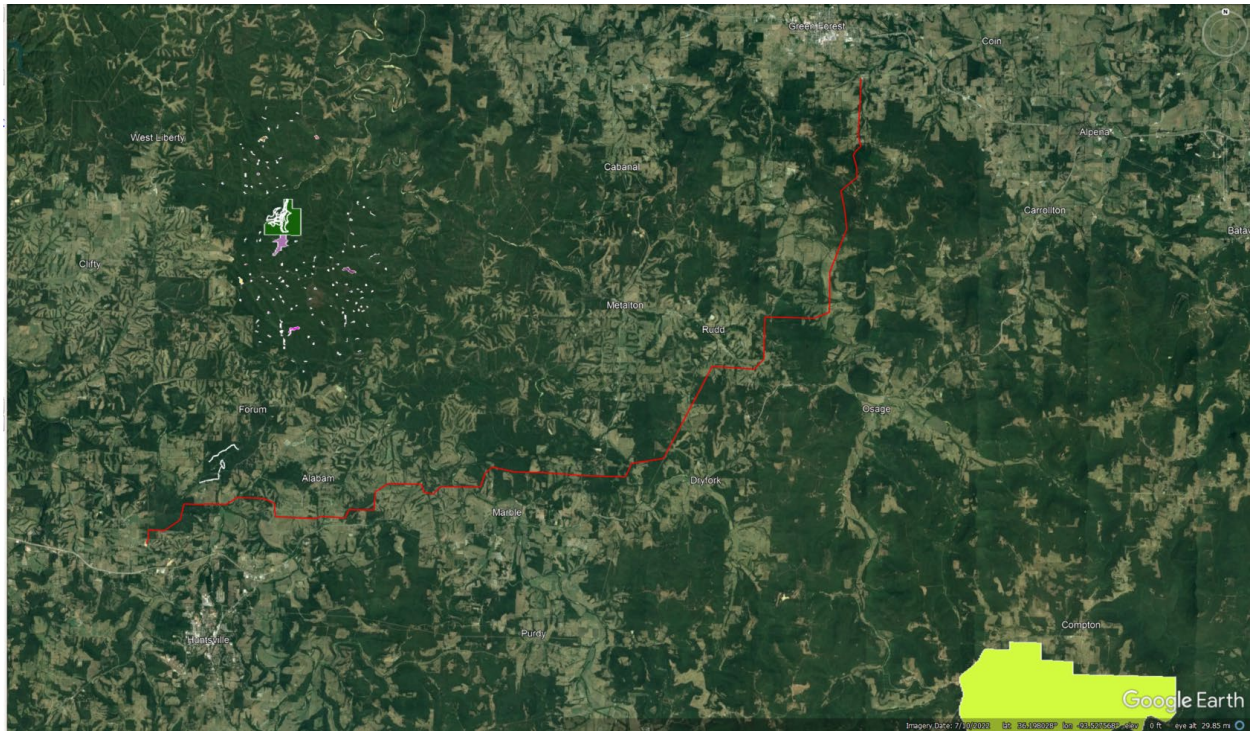


Attribute Data for Impaired Water – War Eagle Creek

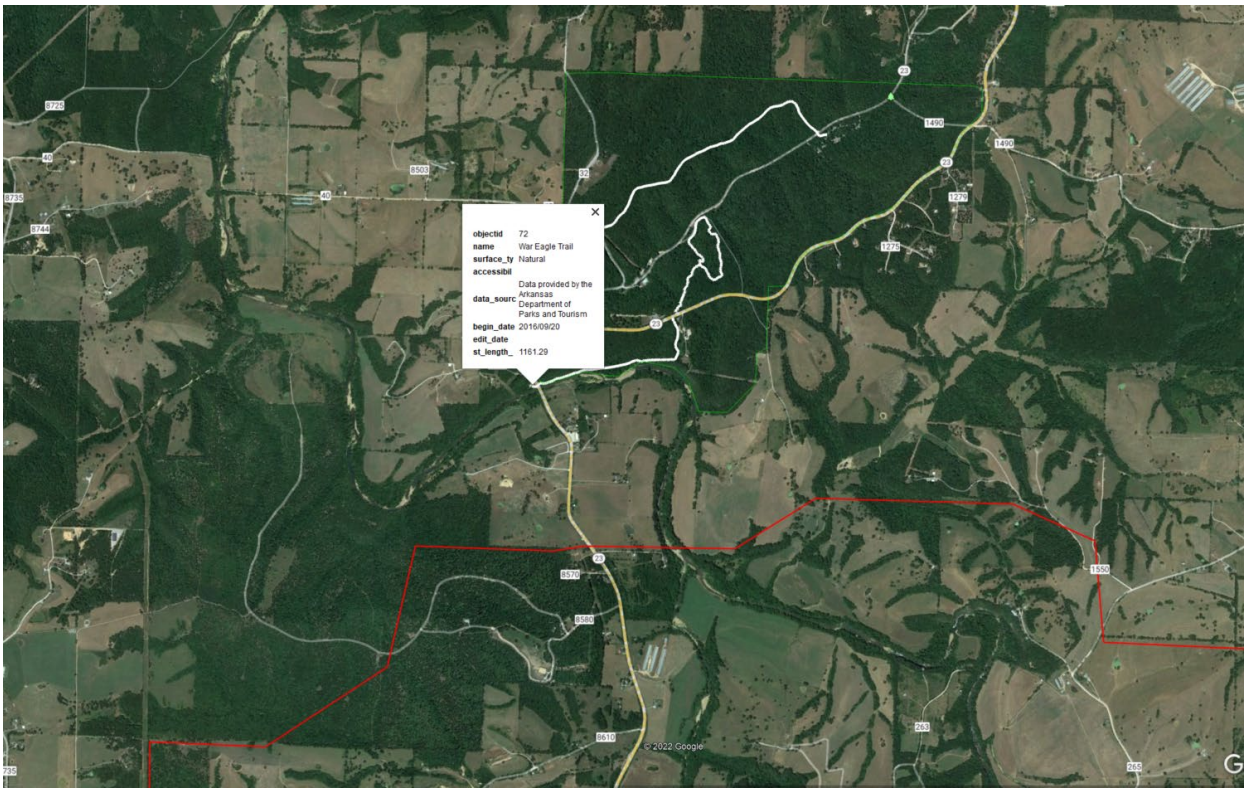


<u>Arkansas GIS Office</u>

State Trails and Wildlife Management Areas

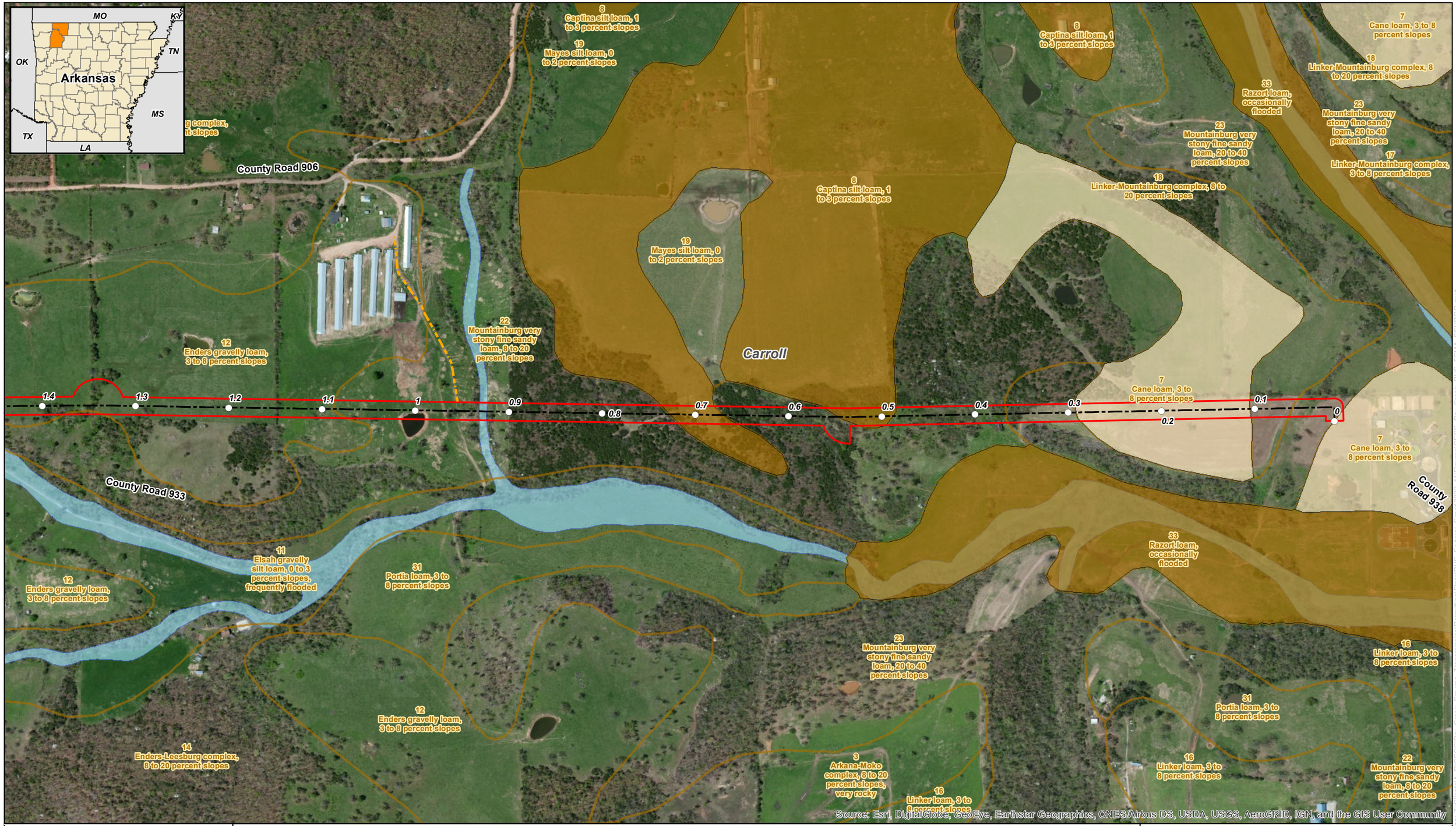


Attribute Data for State Trails – War Eagle Trail
Location of Withrow Springs State Park (Green Boundary)



Appendix E

Soil and Flood Zone Maps



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For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 1 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

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For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 2 of 20

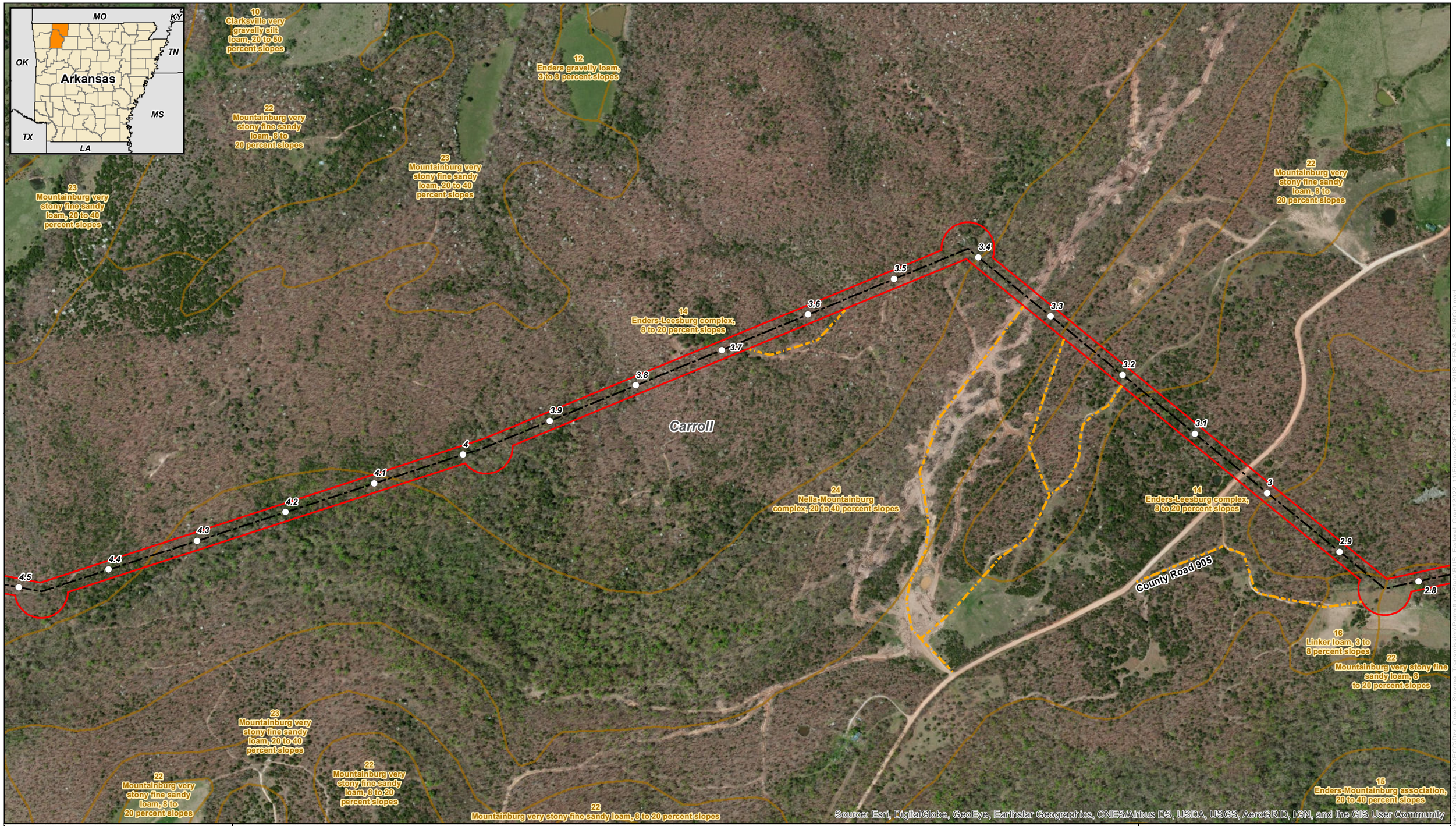
- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)



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Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 3 of 20

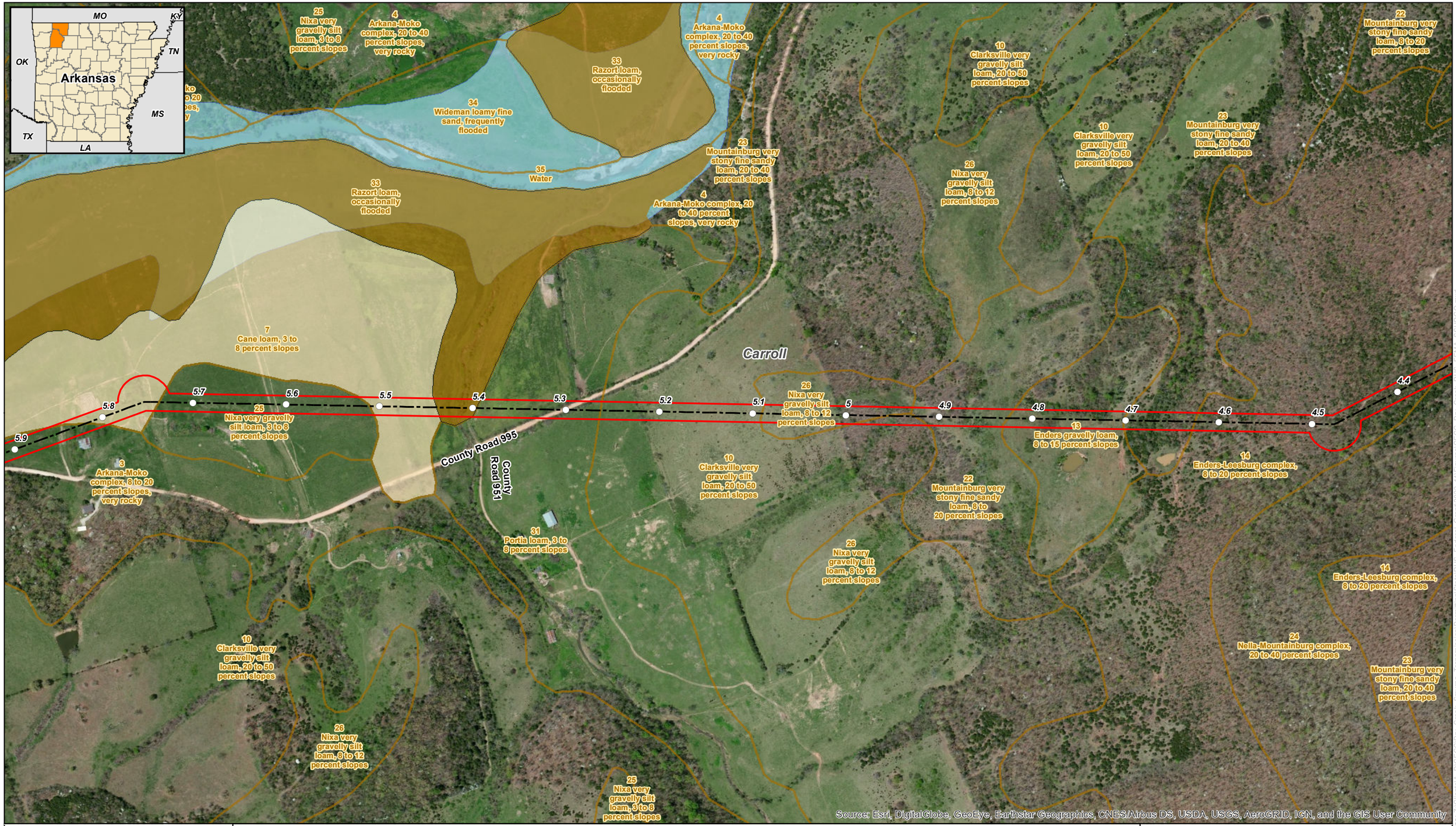
- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)



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

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Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 4 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

14
Enders-Leesburg complex, 8 to 20 percent slopes

14
Enders-Leesburg complex, 8 to 20 percent slopes

3
Arkana-Moko complex, 8 to 20 percent slopes, very rocky

2
Arkana-Eldon complex, 8 to 12 percent slopes

4
Arkana-Moko complex, 20 to 40 percent slopes, very rocky

3
Arkana-Moko complex, 8 to 20 percent slopes, very rocky

31
Portia loam, 3 to 8 percent slopes

10
Clarksville very gravelly silt loam, 20 to 50 percent slopes

23
Mountainburg very stony fine sandy loam, 20 to 40 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

Carroll

33
Razort loam, occasionally flooded

8
Captina silt loam, 1 to 3 percent slopes

7
Cane loam, 3 to 8 percent slopes

3
Arkana-Moko complex, 8 to 20 percent slopes, very rocky

County Road 995

19
Mayes silt loam, 0 to 2 percent slopes

23
Mountainburg very stony fine sandy loam, 20 to 40 percent slopes

7
Cane loam, 3 to 8 percent slopes

10
Clarksville very gravelly silt loam, 20 to 50 percent slopes

10
Clarksville very gravelly silt loam, 20 to 50 percent slopes

26
Nixa very gravelly silt loam, 8 to 12 percent slopes

7
Cane loam, 3 to 8 percent slopes

25
Nixa very gravelly silt loam, 3 to 8 percent slopes

26
Nixa very gravelly silt loam, 8 to 12 percent slopes

35
Water

County Hwy 995

4
Arkana-Moko complex, 20 to 40 percent slopes, very rocky

4
Arkana-Moko complex, 20 to 40 percent slopes, very rocky

20
Moko-Rock outcrop complex, 12 to 50 percent slopes

31
Portia loam, 3 to 8 percent slopes

7
Cane loam, 3 to

7.6 7.5 7.4 7.3 7.2 7.1 7 6.9 6.8 6.7 6.6 6.5 6.4 6.3 6.2 6.1 6 5.9 5.8

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

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N W E S

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Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 5 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\AL_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\

Date: (11/17/2022)

27 Noark very gravelly silt loam, 3 to 8 percent slopes
9 Captina silt loam, 3 to 8 percent slopes
21 Mountainburg gravelly fine sandy loam, 8 to 12 percent slopes
22 Mountainburg very stony fine sandy loam, 8 to 20 percent slopes
Almond Ln
3 Arkana-Moko complex, 8 to 20 percent slopes, very rocky
State Hwy 103
3 Arkana-Moko complex, 8 to 20 percent slopes, very rocky
28 Noark very gravelly silt loam, 8 to 20 percent slopes
Lark Dr
23 Mountainburg very stony fine sandy loam, 20 to 40 percent slopes
14 Enders-Leesburg complex, 8 to 20 percent slopes
23 Mountainburg very stony fine sandy loam, 20 to 40 percent slopes
14 Enders-Leesburg complex, 8 to 20 percent slopes
10 Clarksville very gravelly silt loam, 20 to 50 percent slopes
6 Britwater gravelly silt loam, 8 to 12 percent slopes
County Road 953
County Road 915
Carroll
10 Clarksville very gravelly silt loam, 20 to 50 percent slopes
29 Noark very gravelly silt loam, 20 to 40 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
24 Nella-Mountainburg complex, 20 to 40 percent slopes
22 Mountainburg very stony fine sandy loam, 8 to 20 percent slopes
12 Enders gravelly loam, 3 to 8 percent slopes
16 Linker loam, 3 to 8 percent slopes
22 Mountainburg very stony fine sandy loam, 8 to 20 percent slopes
7 Cane loam, 3 to 8 percent slopes
16 Linker loam, 3 to 8 percent slopes

9.6 9.5 9.4 9.3 9.2 9.1 9 8.9 8.8 8.7 8.6 8.5 8.4 8.3 8.2 8.1 8 7.9 7.8 7.7 7.6 7.5

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

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For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 6 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Graph\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

11
Elsah gravelly silt loam, 0 to 3 percent slopes, frequently flooded

5
Britwater gravelly silt loam, 3 to 8 percent slopes

Hwy 103 S

28
Noark very gravelly silt loam, 8 to 20 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

Meadowlark Ln

27
Noark very gravelly silt loam, 3 to 8 percent slopes

1
Arkana-Eldon complex, 3 to 8 percent slopes

17
Linker-Mountainburg complex, 3 to 8 percent slopes

18
Linker-Mountainburg complex, 8 to 20 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

17
Linker-Mountainburg complex, 3 to 8 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

11.3
11.2
11.1
11
10.9
10.8
10.7
10.6
10.5
10.4
10.3
10.2
10.1
10
9.9
9.8
9.7
9.6
9.5
9.4

27
Noark very gravelly silt loam, 3 to 8 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

18
Linker-Mountainburg complex, 8 to 20 percent slopes

27
Noark very gravelly silt loam, 3 to 8 percent slopes

20
Moko-Rock outcrop complex, 12 to 50 percent slopes

Carroll

18
Linker-Mountainburg complex, 8 to 20 percent slopes

27
Noark very gravelly silt loam, 3 to 8 percent slopes

17
Linker-Mountainburg complex, 3 to 8 percent slopes

11
Elsah gravelly silt loam, 0 to 3 percent slopes, frequently flooded

27
Noark very gravelly silt loam, 3 to 8 percent slopes

16
Linker loam, 3 to 8 percent slopes

14
Enders-Leesburg complex, 8 to 20 percent slopes

State Hwy 103

County Road 955

24
Nella-Mountainburg complex, 20 to 40 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

14
Enders-Leesburg complex, 8 to 20 percent slopes

Apple Rd

27
Noark very gravelly silt loam, 3 to 8 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

22
Mountainburg very stony fine sandy loam, 3 to 20 percent slopes

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

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 7 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

28 Noark very gravelly silt loam, 8 to 20 percent slopes
27 Noark very gravelly silt loam, 3 to 8 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
29 Noark very gravelly silt loam, 20 to 40 percent slopes
27 Noark very gravelly silt loam, 3 to 8 percent slopes
29 Noark very gravelly silt loam, 20 to 40 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
18 Linker-Mountainburg complex, 8 to 20 percent slopes
17 Linker-Mountainburg complex, 3 to 8 percent slopes
11 Elsah gravelly silt loam, 0 to 3 percent slopes, frequently flooded
27 Noark very gravelly silt loam, 3 to 8 percent slopes
14 Enders-Leesburg complex, 8 to 20 percent slopes
1 Arkana-Eldon complex, 3 to 8 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
24 Nella-Mountainburg complex, 20 to 40 percent slopes
1 Arkana-Eldon complex, 3 to 8 percent slopes
29 Noark very gravelly silt loam, 20 to 40 percent slopes
1 Arkana-Eldon complex, 3 to 8 percent slopes
14 Enders-Leesburg complex, 8 to 20 percent slopes
29 Noark very gravelly silt loam, 20 to 40 percent slopes
17 Linker-Mountainburg complex, 3 to 8 percent slopes
21 Mountainburg gravelly fine sandy loam, 8 to 12 percent slopes
20 Moko-Rock outcrop complex, 12 to 50 percent slopes
18 Linker-Mountainburg complex, 8 to 20 percent slopes
14 Enders-Leesburg complex, 8 to 20 percent slopes
17 Linker-Mountainburg complex, 3 to 8 percent slopes
1 Arkana-Eldon complex, 3 to 8 percent slopes

County Road 723
County Road 720
Carroll
Apple Rd

12.7 12.6 12.5 12.4 12.3 12.2 12.1 12 11.9 11.8 11.7 11.6 11.5 11.4 11.3 11.2 11.1

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

0 250 500 Feet

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 8 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

17
Linker-Mountainburg complex, 3 to 8 percent slopes

18
Linker-Mountainburg complex, 8 to 20 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

14
Enders-Leesburg complex, 8 to 20 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

12
Enders gravelly loam, 3 to 8 percent slopes

18
Linker-Mountainburg complex, 8 to 20 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

Louise Ln

16
Linker loam, 3 to 8 percent slopes

27
Noark very gravelly silt loam, 3 to 8 percent slopes

County Road 241

18
Linker-Mountainburg complex, 8 to 20 percent slopes

Carroll

27
Noark very gravelly silt loam, 3 to 8 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

14.1 14 13.9 13.8 13.7 13.6 13.5 13.4 13.3 13.2 13.1 13 12.9 12.8 12.7

Butternut Ln

27
Noark very gravelly silt loam, 3 to 8 percent slopes

1
Arkana-Eldon complex, 3 to 8 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

County Road 720

1
Arkana-Eldon complex, 3 to 8 percent slopes

4
Arkana-Moko complex, 20 to 40 percent slopes, very rocky

11
Elsah gravelly silt loam, 0 to 3 percent slopes, frequently flooded

4
Arkana-Moko complex, 20 to 40 percent slopes, very rocky

29
Noark very gravelly silt loam, 20 to 40 percent slopes

24
Nella-Mountainburg complex, 20 to 40 percent slopes

28
Noark very gravelly silt loam, 8 to 20 percent slopes

1
Arkana-Eldon complex, 3 to 8 percent slopes

4
Arkana-Moko complex, 20 to 40 percent slopes, very rocky

14
Enders-Leesburg complex, 8 to 20 percent slopes

29
Noark very gravelly silt loam, 20 to 40 percent slopes

24
Nella-Mountainburg complex, 20 to 40 percent slopes

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

0 250 500 Feet

N E S W

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 9 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

Woods Ln
33 Razort loam, occasionally flooded
5 Britwater gravelly silt loam, 3 to 8 percent slopes
10 Clarksville very gravelly silt loam, 20 to 50 percent slopes
28 Noark very gravelly silt loam, 8 to 20 percent slopes
29 Noark very gravelly silt loam, 20 to 40 percent slopes
35 Water
26 Nixa very gravelly silt loam, 8 to 12 percent slopes
Louise Ln
Carroll
Underwood Ln
Oak Dr
County Road 727
Butternut Ln
27 Noark very gravelly silt loam, 3 to 8 percent slopes
1 Arkana-Eldon complex, 3 to 8 percent slopes
4 Arkana-Moko complex, 20 to 40 percent slopes, very rocky
15.7
15.6
15.5
15.4
15.3
15.2
15.1
15
14.9
14.8
14.7
14.6
14.5
14.4
14.3
14.2
14.1
14

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 10 of 20

- Milepost
- Access Road
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- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

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- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

28 Noark very gravelly silt loam, 8 to 20 percent slopes

25 Nixa very gravelly silt loam, 3 to 8 percent slopes

28 Noark very gravelly silt loam, 8 to 20 percent slopes

25 Nixa very gravelly silt loam, 3 to 8 percent slopes

28 Noark very gravelly silt loam, 8 to 20 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

County Road 528

County Road 526

Highway 21 S

Underwood Ln

Oak Dr

Oak Dr

29 Noark very gravelly silt loam, 20 to 40 percent slopes

4 Arkana-Moko complex, 20 to 40 percent slopes, very rocky

State Hwy 21

28 Noark very gravelly silt loam, 8 to 20 percent slopes

Highway 21 S

Carroll

26 Nixa very gravelly silt loam, 8 to 12 percent slopes

17.1 17 16.9 16.8 16.7 16.6 16.5 16.4 16.3 16.2 16.1 16 15.9 15.8 15.7 15.6

37 Noark very gravelly silt loam, 8 to 12 percent slopes

Wildcat Cir

14 Enders-Leesburg complex, 8 to 20 percent slopes

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

16 Linker loam, 3 to 8 percent slopes

24 Nella-Mountainburg complex, 20 to 40 percent slopes

Madison

State Hwy 21

26 Nixa very gravelly silt loam, 8 to 12 percent slopes

29 Noark very gravelly silt loam, 20 to 40 percent slopes

23 Linker loam, 3 to 8 percent slopes

17 Linker-Mountainburg complex, 3 to 8 percent slopes

15 Enders-Mountainburg association, 20 to 40 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

28 Mountainburg very stony loam, 20 to 50 percent slopes

Madison 1516

38 Noark very cherty silt loam, 12 to 20 percent slopes

39 Noark very gravelly silt loam, 20 to 40 percent slopes

28 Noark very gravelly silt loam, 8 to 20 percent slopes

19 Leadvale loam, 3 to 8 percent slopes

29 Noark very gravelly silt loam, 20 to 40 percent slopes

16 Linker loam, 3 to

Beech Rd

25 Nixa very gravelly silt loam, 3 to 8

24

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

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 11 of 20

- Milepost
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- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\AL_D\CEC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CEC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

23 Mountainburg very stony fine sandy loam, 20 to 40 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

27 Noark very gravelly silt loam, 3 to 8 percent slopes

16 Linker loam, 3 to 8 percent slopes

28 Noark very gravelly silt loam, 8 to 20 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

17 Linker-Mountainburg complex, 3 to 8 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

Carroll

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

County Road 806

21 Mountainburg gravelly fine sandy loam, 8 to 12 percent slopes

16 Linker loam, 3 to 8 percent slopes

28 Noark very gravelly silt loam, 8 to 20 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

8 Captina silt loam, 1 to 3 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

10 Clarksville very gravelly silt loam, 20 to 50 percent slopes

18.5 18.4 18.3 18.2 18.1 18 17.9 17.8 17.7 17.6 17.5 17.4 17.3 17.2 17.1 17

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

28 Mountainburg very stony loam, 20 to 50 percent slopes

38 Noark very cherty silt loam, 12 to 20 percent slopes

37 Noark very gravelly silt loam, 8 to 12 percent slopes

37 Noark very gravelly silt loam, 8 to 12 percent slopes

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

County Road 24

Madison 1512

Madison

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

38 Noark very cherty silt loam, 12 to 20 percent slopes

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

28 Mountainburg very stony loam, 20 to 50 percent slopes

23 Linker loam, 3 to 8 percent slopes

36 Nixa very gravelly silt loam, 8 to 12 percent slopes

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

36 Nixa very gravelly silt loam, 8 to 12 percent slopes

28 Mountainburg very stony loam, 20 to 50 percent slopes

Madison 1516

19 Leadvale loam, 3 to 8 percent slopes

19 Leadvale loam, 3 to 8 percent slopes

43 Steprock gravelly loam,

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

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

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 12 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 13 of 20

0 250 500 Feet

For Environmental Review Purposes Only

- Milepost
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SSURGO

- Prime Farmland
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Date: (11/17/2022)

Republic Ranch Rd

Madison 1805

Madison 1530

Madison 1500

Madison 1510

County Road 271

Madison

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

36 Nixa very gravelly silt loam, 8 to 12 percent slopes

10 Cleora fine sandy loam, occasionally flooded

1 Allen loam, 3 to 8 percent slopes

47 Tonti cherty silt loam, 3 to 8 percent slopes

49 Water

11 Elsah very cherty silt loam, occasionally flooded

37 Noark very gravelly silt loam, 8 to 12 percent slopes

39 Noark very gravelly silt loam, 20 to 40 percent slopes

38 Noark very cherty silt loam, 12 to 20 percent slopes

19 Leadvale loam, 3 to 8 percent slopes

30 Nella gravelly loam, 8 to 12 percent slopes

17 Healing silt loam, 1 to 3 percent slopes, rarely flooded

29 Nella gravelly loam, 3 to 8 percent slopes

5 Britwater gravelly silt loam, 3 to 8

48 Waben very cherty silt loam, 3 to 12 percent slopes

41 Peridge silt loam, 3 to 8 percent slopes

21.8 21.7 21.6 21.5 21.4 21.3 21.2 21.1 21 20.9 20.8 20.7 20.6 20.5 20.4 20.3 20.2 20.1

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 14 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

- Prime Farmland
- Farmland of Statewide Importance
- Not Prime Farmland

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 15 of 20

- Milepost
- Access Road
- Centerline
- Survey Corridor
- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

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Source: Z:\Clients\A_D\CECC\Dry Creek_Smyrna_Transmission\Permitting\State\RUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_RUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

49 Water

11 Elsah very cherty silt loam, occasionally flooded

39 Noark very gravelly silt loam, 20 to 40 percent slopes

39 Noark very gravelly silt loam, 20 to 40 percent slopes

19 Leadvale loam, 3 to 8 percent slopes

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

Driveway

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

12 Enders gravelly loam, 3 to 8 percent slopes

13 Enders gravelly loam, 8 to 15 percent slopes

39 Noark very gravelly silt loam, 20 to 40 percent slopes

12 Enders gravelly loam, 3 to 8 percent slopes

41 Peridge silt loam, 3 to 8 percent slopes

12 Enders gravelly loam, 3 to 8 percent slopes

25.1

25

24.9

24.8

24.7

24.6

24.5

24.4

24.3

24.2

24.1

24

23.9

23.8

23.7

23.6

23.5

23.4

23.3

23.2

Madison 1525

Madison

15 Enders-Leesburg complex, 8 to 20 percent slopes

16 Enders-Leesburg complex, 20 to 40 percent slopes

27 Mountainburg stony loam, 3 to 20 percent slopes

27 Mountainburg stony loam, 3 to 20 percent slopes

39 Noark very gravelly silt loam, 20 to 40 percent slopes

Madison 1570

Driveway

27 Mountainburg stony loam, 3 to 20 percent slopes

Highway 412

41 Peridge silt loam, 3 to 8 percent slopes

County Road 274

County Road 273

Us Hwy 412

12 Enders gravelly loam, 3 to 8 percent slopes

30 Nella gravelly loam, 8 to 12 percent slopes

Highway 412

28 Mountainburg very stony loam, 20 to 50 percent slopes

12 Enders gravelly loam, 3 to 8 percent slopes

27 Mountainburg stony loam, 3 to 20 percent slopes

Driveway

12 Enders gravelly loam, 3 to 8 percent slopes

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

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 16 of 20

- Milepost
- Access Road
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- County Boundary
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SSURGO

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- Not Prime Farmland

Source: Z:\Clients\A_D\CECC\Dry_Creek_Smyrna_Transmission\Permitting\State\KUS_Federal_Grant\2022_11\Figures\CECC_Dry_Creek_KUS_FEMA_SSURGO.mxd

Date: (11/17/2022)

Driveway
35 Nixa very gravelly silt loam, 3 to 8 percent slopes
15 Enders-Leesburg complex, 8 to 20 percent slopes
19 Leadvale loam, 3 to 8 percent slopes
23 Linker loam, 3 to 8 percent slopes
47 Tonti cherty silt loam, 3 to 8 percent slopes
19 Leadvale loam, 3 to 8 percent slopes
49 Water
23 Linker loam, 3 to 8 percent slopes
39 Noark very gravelly silt loam, 20 to 40 percent slopes
Madison 1335
Madison 1550
41 Peridge silt loam, 3 to 8 percent slopes
35 Nixa very gravelly silt loam, 3 to 8 percent slopes
N Highway 127
43 Steprock gravelly loam, 3 to 8 percent slopes
38 Noark very cherty silt loam, 12 to 20 percent slopes
3 Arkana-Moko complex, 8 to 20 percent slopes, very rocky
13 Enders gravelly loam, 8 to 15 percent slopes
39 Noark very gravelly silt loam, 20 to 40 percent slopes
47 Tonti cherty silt loam, 3 to 8 percent slopes
Madison
26.5
26.4
26.3
26.2
26.1
26
25.9
25.8
25.7
25.6
25.5
25.4
25.3
25.2
25.1
25
41 Peridge silt loam, 3 to 8 percent slopes
47 Tonti cherty silt loam, 3 to 8 percent slopes
48 Waben very cherty silt loam, 3 to 12 percent slopes
36 Nixa very gravelly silt loam, 8 to 12 percent slopes
State Hwy 127
Madison 1570
Madison 1455
Highway 412
39 Noark very gravelly silt loam, 20 to 40 percent slopes
41 Peridge silt loam, 3 to 8 percent slopes
35 Nixa very gravelly silt loam, 3 to 8 percent slopes
Driveway
11 Elsah very cherty silt loam, occasionally flooded
Us Hwy 412
Us Hwy Highway 412
36 Nixa very gravelly silt loam, 8 to 12 percent slopes
41 Peridge silt loam, 3 to 8 percent slopes
Madison 1335
39 Noark very gravelly silt loam, 20 to 40 percent slopes
11 Elsah very cherty silt loam, occasionally flooded
41 Peridge silt loam, 3
Highway 412

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

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 17 of 20

- Milepost
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- County Boundary
- FEMA Flood Zone (100-Year)

SSURGO

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Date: (11/17/2022)

39 Noark very gravelly silt loam, 20 to 40 percent slopes
42 Secesh gravelly silt loam, occasionally flooded
38 Noark very cherty silt loam, 12 to 20 percent slopes
36 Nixa very gravelly silt loam, 8 to 12 percent slopes
35 Nixa very gravelly silt loam, 3 to 8 percent slopes
9 Clarksville very gravelly silt loam, 20 to 50 percent slopes
37 Noark very gravelly silt loam, 8 to 12 percent slopes
Driveway
Madison 1550
Madison
Madison 1335
Madison 1265
27.3
27.2
27.1
27
27.4
27.5
27.6
27.7
27.8
27.9
28
28.1
28.2
26.9
26.8
26.7
26.6
26.5
26.4
47 Tonti cherty silt loam, 3 to 8 percent slopes
6 Captina silt loam, 1 to 3 percent slopes
41 Peridge silt loam, 3 to 8 percent slopes
10 Cleora fine sandy loam, occasionally flooded
29 Nella gravelly loam, 3 to 8 percent slopes
25 Moko very stony silt loam, very rocky, 12 to 40 percent slopes
8 Ceda cobbly fine sandy loam, 0 to 3 percent slopes, frequently flooded
5 Britwater gravelly silt loam, 3 to 8 percent slopes
17 Healing silt loam, 1 to 3 percent slopes, rarely flooded
49 Water
40 Peridge silt loam, 1 to 3 percent slopes
48 Waben very cherty silt loam, 3 to 12 percent slopes

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

0 250 500 Feet

N E S W

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 18 of 20

- Milepost
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- County Boundary
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SSURGO

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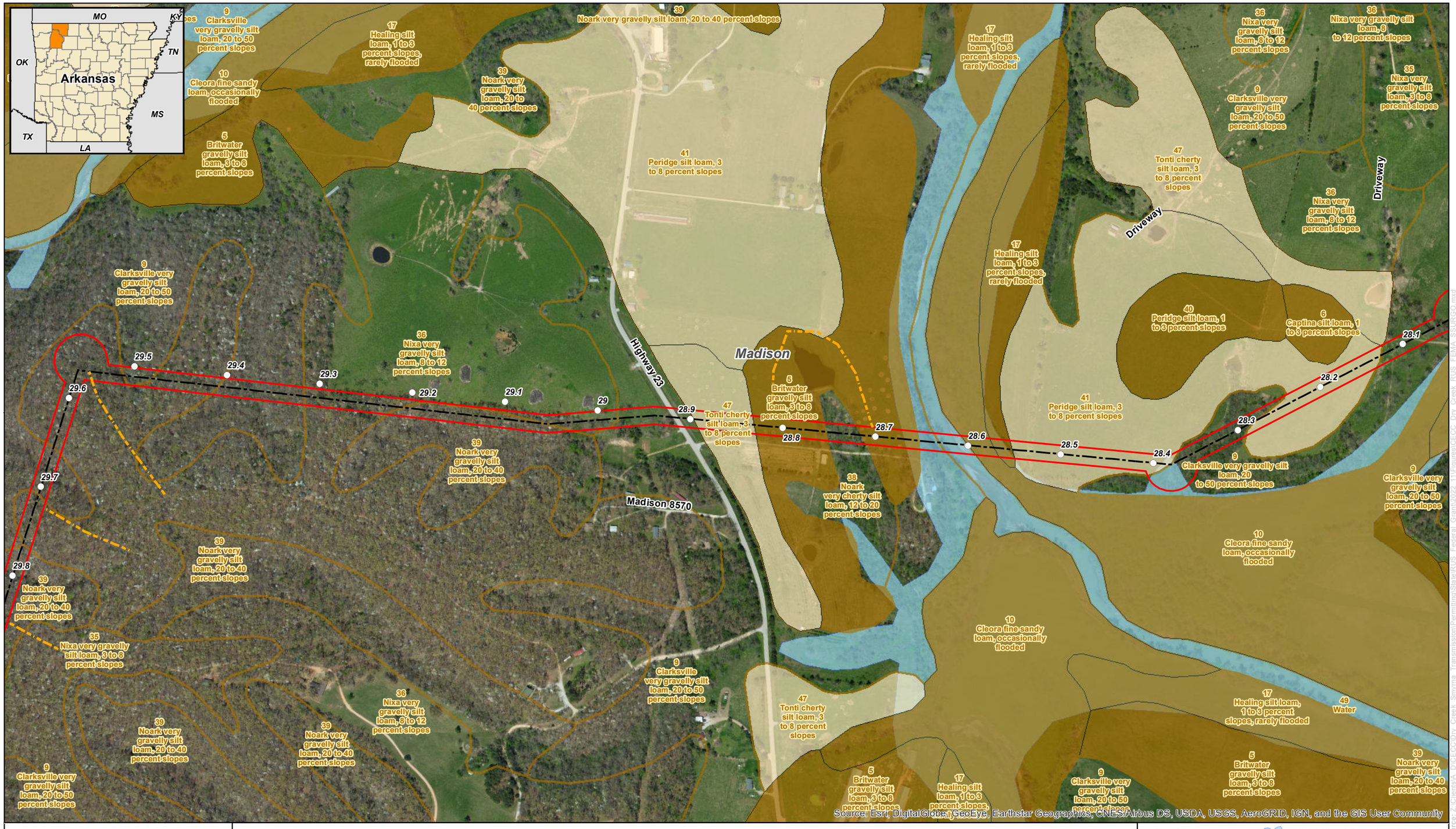
Date: (11/17/2022)



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

0 250 500 Feet

N W E S

For Environmental Review Purposes Only

Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 19 of 20

- Milepost
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SSURGO

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Date: (11/17/2022)

47 Tonti cherty silt loam, 3 to 8 percent slopes

35 Nixa very gravelly silt loam, 3 to 8 percent slopes

39 Noark very gravelly silt loam, 20 to 40 percent slopes

9 Clarksville very gravelly silt loam, 20 to 50 percent slopes

36 Nixa very gravelly silt loam, 8 to 12 percent slopes

49 Water

10 Cleora fine sandy loam, occasionally flooded

11 Elsah very cherty silt loam, occasionally flooded

Madison

Madison 8620

31 31.1 31.2 31.3 31.4 30.9 30.8 30.7 30.6 30.5 30.4 30.3 30.2 30.1 30 29.9 29.8 29.7 29.6

0 250 500 Feet

N W E S

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Dry Creek to Smyrna Transmission Line Project

Carroll Electric Cooperative Corporation

Soil and Flood Zone Data

Carroll and Madison Counties, Arkansas

Map 20 of 20

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Date: (11/17/2022)

Appendix F

Wetland and Waterbody Survey Report

(provided as separate document)

Appendix G

EJScreen 2.1 Database Review

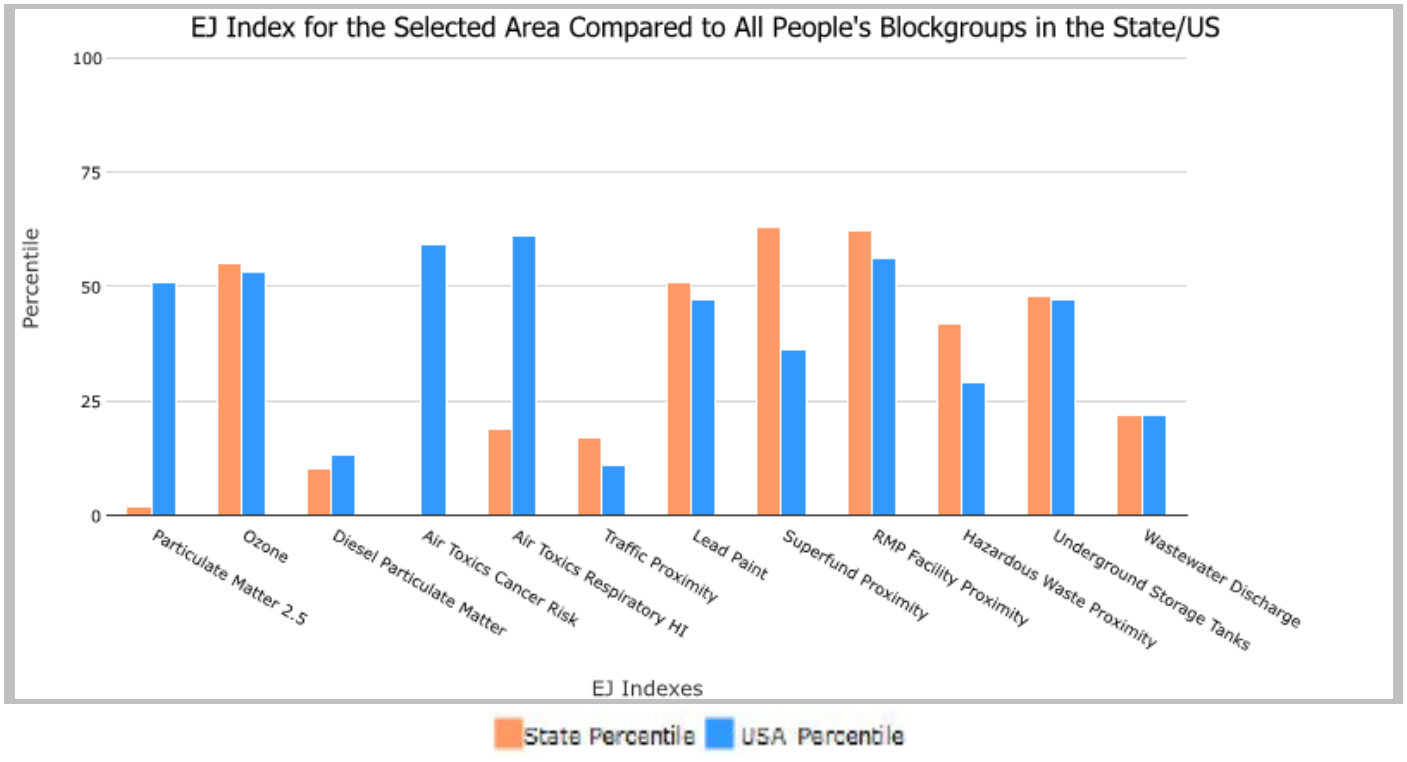
EJScreen Report (Version 2.1)

1 mile Ring around the Corridor, ARKANSAS, EPA Region 6

Approximate Population: 1,585

Input Area (sq. miles): 63.19

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	2	51
EJ Index for Ozone	55	53
EJ Index for Diesel Particulate Matter*	10	13
EJ Index for Air Toxics Cancer Risk*	0	59
EJ Index for Air Toxics Respiratory HI*	19	61
EJ Index for Traffic Proximity	17	11
EJ Index for Lead Paint	51	47
EJ Index for Superfund Proximity	63	36
EJ Index for RMP Facility Proximity	62	56
EJ Index for Hazardous Waste Proximity	42	29
EJ Index for Underground Storage Tanks	48	47
EJ Index for Wastewater Discharge	22	22



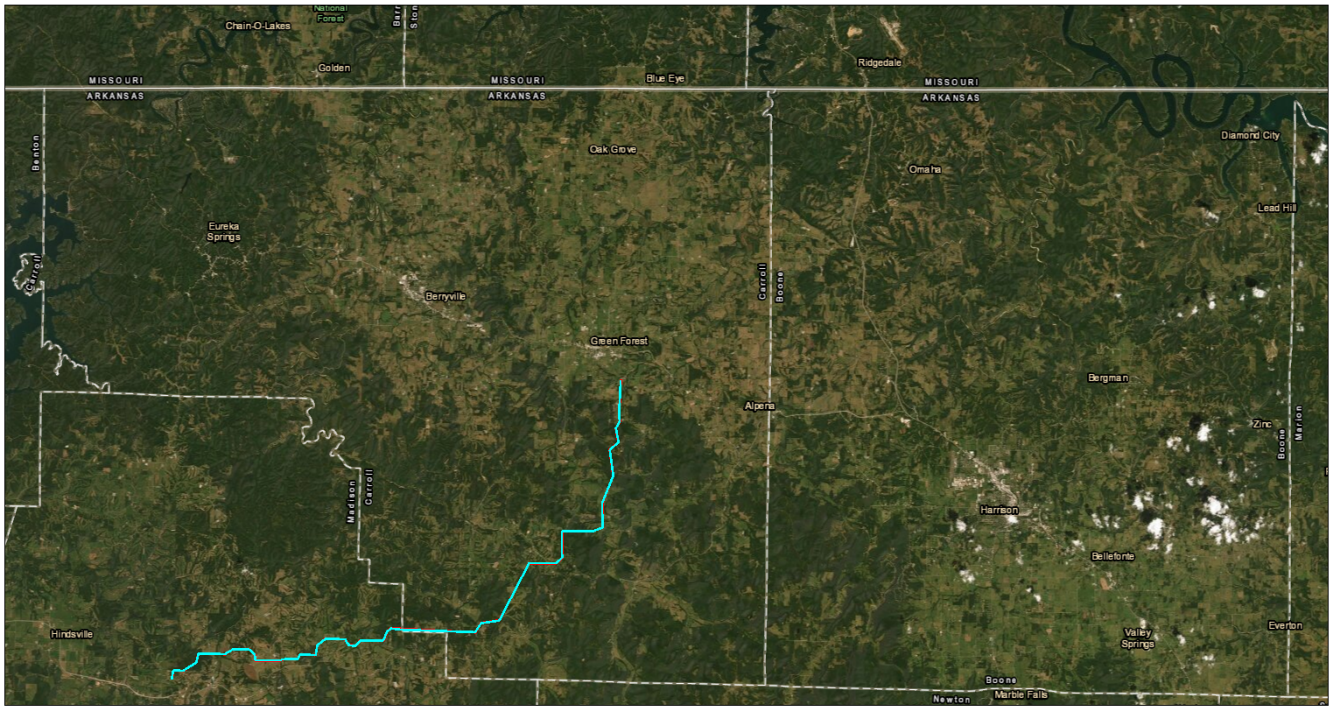
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJScreen Report (Version 2.1)

1 mile Ring around the Corridor, ARKANSAS, EPA Region 6

Approximate Population: 1,585

Input Area (sq. miles): 63.19



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

1 mile Ring around the Corridor, ARKANSAS, EPA Region 6

Approximate Population: 1,585

Input Area (sq. miles): 63.19

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	8.31	9.24	2	8.67	42
Ozone (ppb)	41.4	41.2	52	42.5	41
Diesel Particulate Matter* (µg/m^3)	0.0746	0.177	8	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	30	35	0	28	80-90th
Air Toxics Respiratory HI*	0.4	0.48	31	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	7.6	200	15	760	7
Lead Paint (% Pre-1960 Housing)	0.11	0.15	48	0.27	36
Superfund Proximity (site count/km distance)	0.025	0.039	67	0.13	24
RMP Facility Proximity (facility count/km distance)	0.4	0.63	62	0.77	54
Hazardous Waste Proximity (facility count/km distance)	0.17	0.55	49	2.2	28
Underground Storage Tanks (count/km^2)	0.23	1.1	45	3.9	33
Wastewater Discharge (toxicity-weighted concentration/m distance)	3.5E-05	0.68	31	12	24
Socioeconomic Indicators					
Demographic Index	30%	36%	48	35%	51
People of Color	15%	28%	41	40%	32
Low Income	44%	39%	58	30%	73
Unemployment Rate	4%	5%	56	5%	55
Limited English Speaking Households	1%	2%	81	5%	60
Less Than High School Education	18%	13%	72	12%	77
Under Age 5	7%	6%	67	6%	70
Over Age 64	17%	17%	50	16%	56

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN ACS Summary Report

Location: User-specified linear location
Ring (buffer): 1-miles radius
Description:

Summary of ACS Estimates	2016 - 2020
Population	1,585
Population Density (per sq. mile)	22
People of Color Population	239
% People of Color Population	15%
Households	526
Housing Units	673
Housing Units Built Before 1950	63
Per Capita Income	24,739
Land Area (sq. miles) (Source: SF1)	72.45
% Land Area	100%
Water Area (sq. miles) (Source: SF1)	0.22
% Water Area	0%

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	1,585	100%	564
Population Reporting One Race	1,516	96%	1,075
White	1,437	91%	564
Black	1	0%	23
American Indian	4	0%	29
Asian	21	1%	72
Pacific Islander	14	1%	267
Some Other Race	37	2%	120
Population Reporting Two or More Races	69	4%	161
Total Hispanic Population	180	11%	230
Total Non-Hispanic Population	1,405		
White Alone	1,346	85%	564
Black Alone	1	0%	23
American Indian Alone	2	0%	29
Non-Hispanic Asian Alone	21	1%	72
Pacific Islander Alone	14	1%	267
Other Race Alone	0	0%	12
Two or More Races Alone	20	1%	99
Population by Sex			
Male	795	50%	293
Female	790	50%	306
Population by Age			
Age 0-4	115	7%	97
Age 0-17	394	25%	179
Age 18+	1,191	75%	296
Age 65+	269	17%	148

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2016 - 2020 .

EJSCREEN ACS Summary Report

Location: User-specified linear location
Ring (buffer): 1-miles radius
Description:

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	1,047	100%	304
Less than 9th Grade	97	9%	130
9th - 12th Grade, No Diploma	94	9%	120
High School Graduate	468	45%	178
Some College, No Degree	195	19%	121
Associate Degree	52	5%	75
Bachelor's Degree or more	141	13%	109
Population Age 5+ Years by Ability to Speak English			
Total	1,470	100%	472
Speak only English	1,315	89%	440
Non-English at Home[1+2+3+4]	155	11%	280
[1]Speak English "very well"	89	6%	133
[2]Speak English "well"	35	2%	181
[3]Speak English "not well"	15	1%	73
[4]Speak English "not at all"	16	1%	81
[3+4]Speak English "less than well"	31	2%	109
[2+3+4]Speak English "less than very well"	65	4%	211
Linguistically Isolated Households*			
Total	8	100%	65
Speak Spanish	5	71%	38
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	2	29%	51
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	526	100%	155
< $15,000	62	12%	99
$15,000 - $25,000	83	16%	106
$25,000 - $50,000	115	22%	123
$50,000 - $75,000	101	19%	94
$75,000 +	165	31%	99
Occupied Housing Units by Tenure			
Total	526	100%	155
Owner Occupied	420	80%	139
Renter Occupied	105	20%	98
Employed Population Age 16+ Years			
Total	1,276	100%	422
In Labor Force	752	59%	266
Civilian Unemployed in Labor Force	33	3%	65
Not In Labor Force	524	41%	243

Data Note: Datail may not sum to totals due to rounding. Hispanic population can be of anyrace.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)
*Households in which no one 14 and over speaks English "very well" or speaks English only.

EJSCREEN ACS Summary Report

Location: User-specified linear location
Ring (buffer): 1-miles radius
Description:

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	2,775	100%	490
English	2,220	80%	490
Spanish	517	19%	269
French, Haitian, or Cajun	0	0%	12
German or other West Germanic	0	0%	12
Russian, Polish, or Other Slavic	0	0%	12
Other Indo-European	0	0%	12
Korean	0	0%	12
Chinese (including Mandarin, Cantonese)	0	0%	12
Vietnamese	0	0%	12
Tagalog (including Filipino)	3	0%	15
Other Asian and Pacific Island	35	1%	266
Arabic	0	0%	12
Other and Unspecified	0	0%	12
Total Non-English	555	20%	693

Data Note: Detail may not sum to totals due to rounding. Hispanic popultion can be of any race.
N/A meansnot available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2016 - 2020.
*Population by Language Spoken at Home is available at the census tract summary level and up.

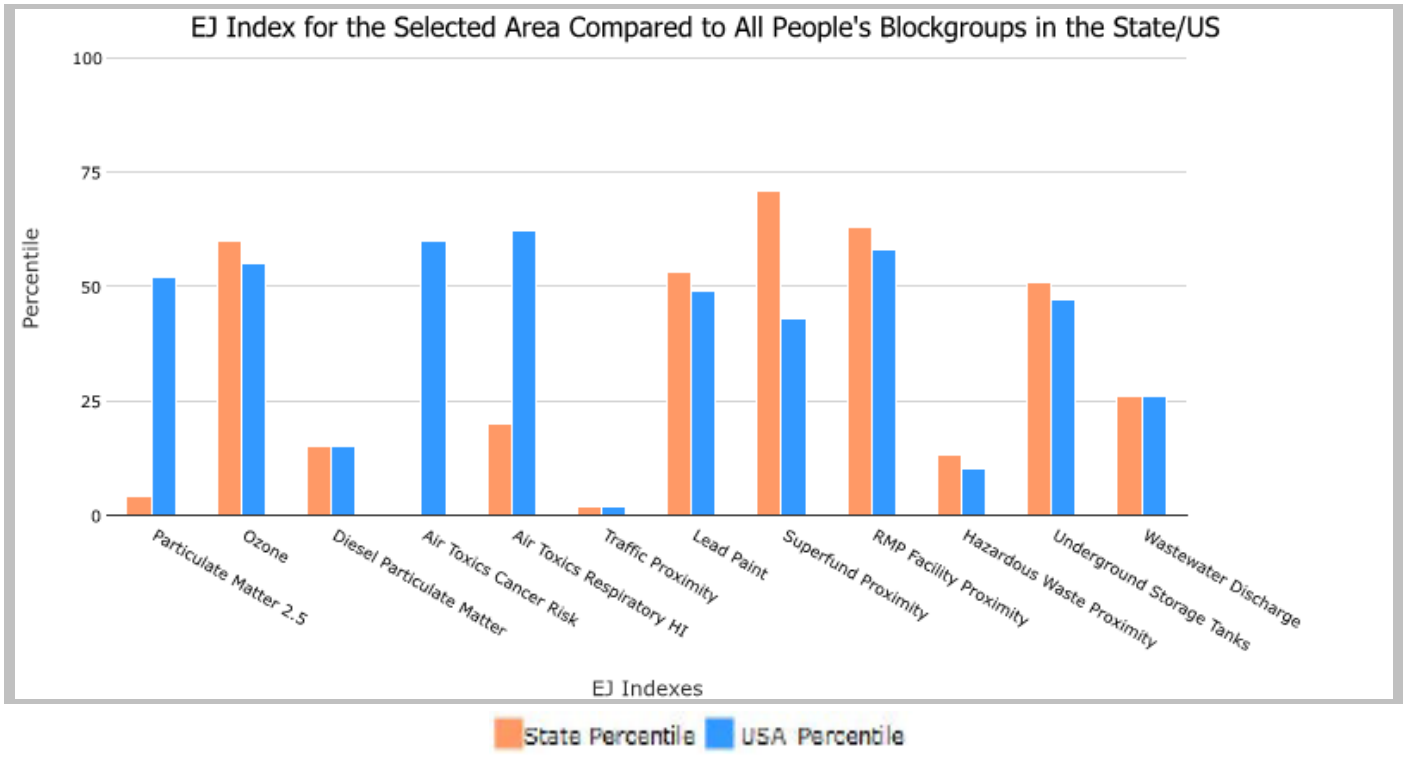
EJScreen Report (Version 2.1)

County: Carroll, ARKANSAS, EPA Region 6

Approximate Population: 28,062

Input Area (sq. miles): 638.70

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	4	52
EJ Index for Ozone	60	55
EJ Index for Diesel Particulate Matter*	15	15
EJ Index for Air Toxics Cancer Risk*	0	60
EJ Index for Air Toxics Respiratory HI*	20	62
EJ Index for Traffic Proximity	2	2
EJ Index for Lead Paint	53	49
EJ Index for Superfund Proximity	71	43
EJ Index for RMP Facility Proximity	63	58
EJ Index for Hazardous Waste Proximity	13	10
EJ Index for Underground Storage Tanks	51	47
EJ Index for Wastewater Discharge	26	26



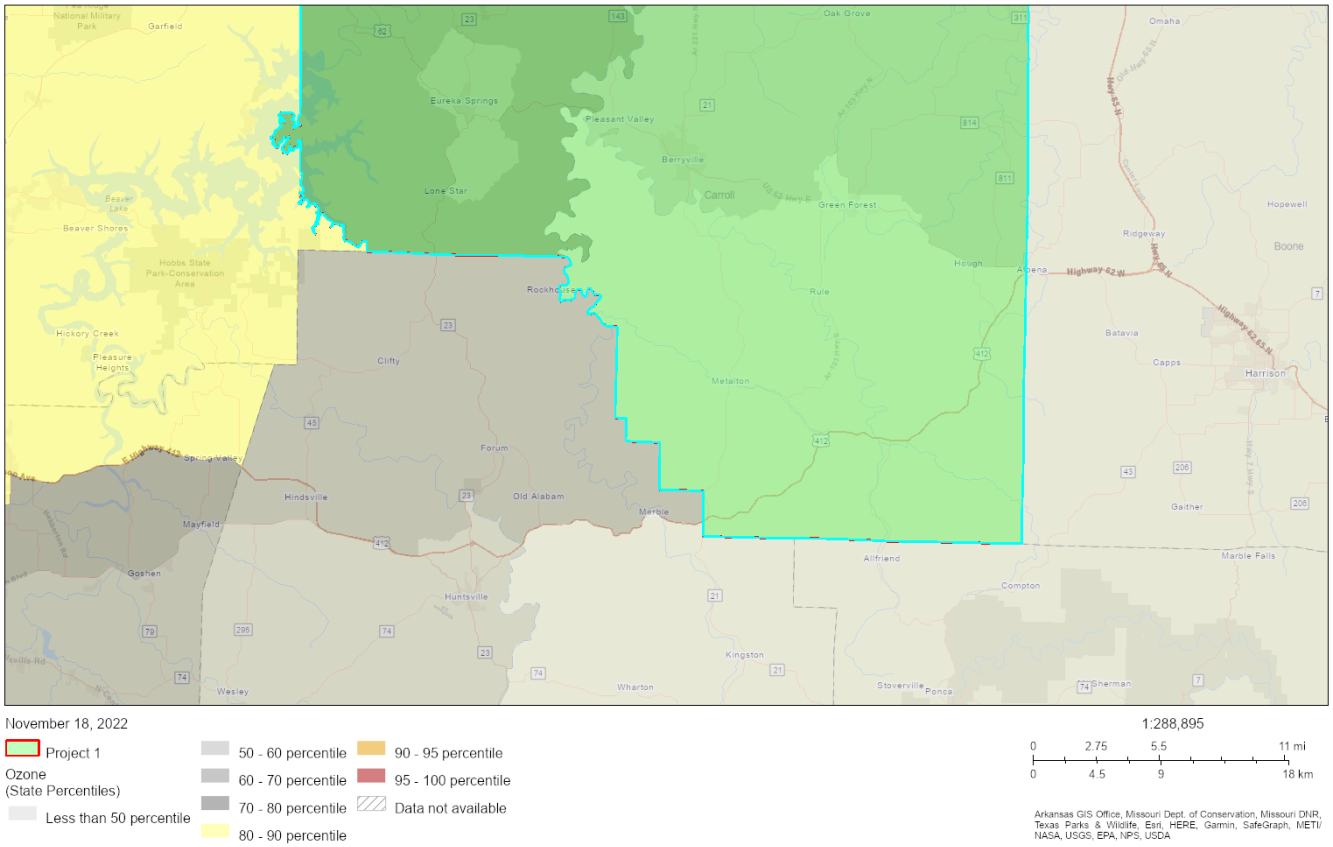
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJScreen Report (Version 2.1)

County: Carroll, ARKANSAS, EPA Region 6

Approximate Population: 28,062

Input Area (sq. miles): 638.70



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

County: Carroll, ARKANSAS, EPA Region 6

Approximate Population: 28,062

Input Area (sq. miles): 638.70

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	8.35	9.24	3	8.67	43
Ozone (ppb)	41.7	41.2	59	42.5	44
Diesel Particulate Matter* (µg/m^3)	0.0777	0.177	9	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	30	35	0	28	80-90th
Air Toxics Respiratory HI*	0.4	0.48	31	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	0.83	200	5	760	2
Lead Paint (% Pre-1960 Housing)	0.15	0.15	57	0.27	41
Superfund Proximity (site count/km distance)	0.031	0.039	74	0.13	29
RMP Facility Proximity (facility count/km distance)	0.6	0.63	70	0.77	63
Hazardous Waste Proximity (facility count/km distance)	0.033	0.55	10	2.2	5
Underground Storage Tanks (count/km^2)	0.33	1.1	49	3.9	35
Wastewater Discharge (toxicity-weighted concentration/m distance)	6.9E-05	0.68	37	12	29
Socioeconomic Indicators					
Demographic Index	30%	36%	49	35%	52
People of Color	22%	28%	51	40%	41
Low Income	39%	39%	47	30%	67
Unemployment Rate	4%	5%	57	5%	55
Limited English Speaking Households	2%	2%	85	5%	65
Less Than High School Education	14%	13%	57	12%	68
Under Age 5	6%	6%	52	6%	55
Over Age 64	23%	17%	72	16%	76

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

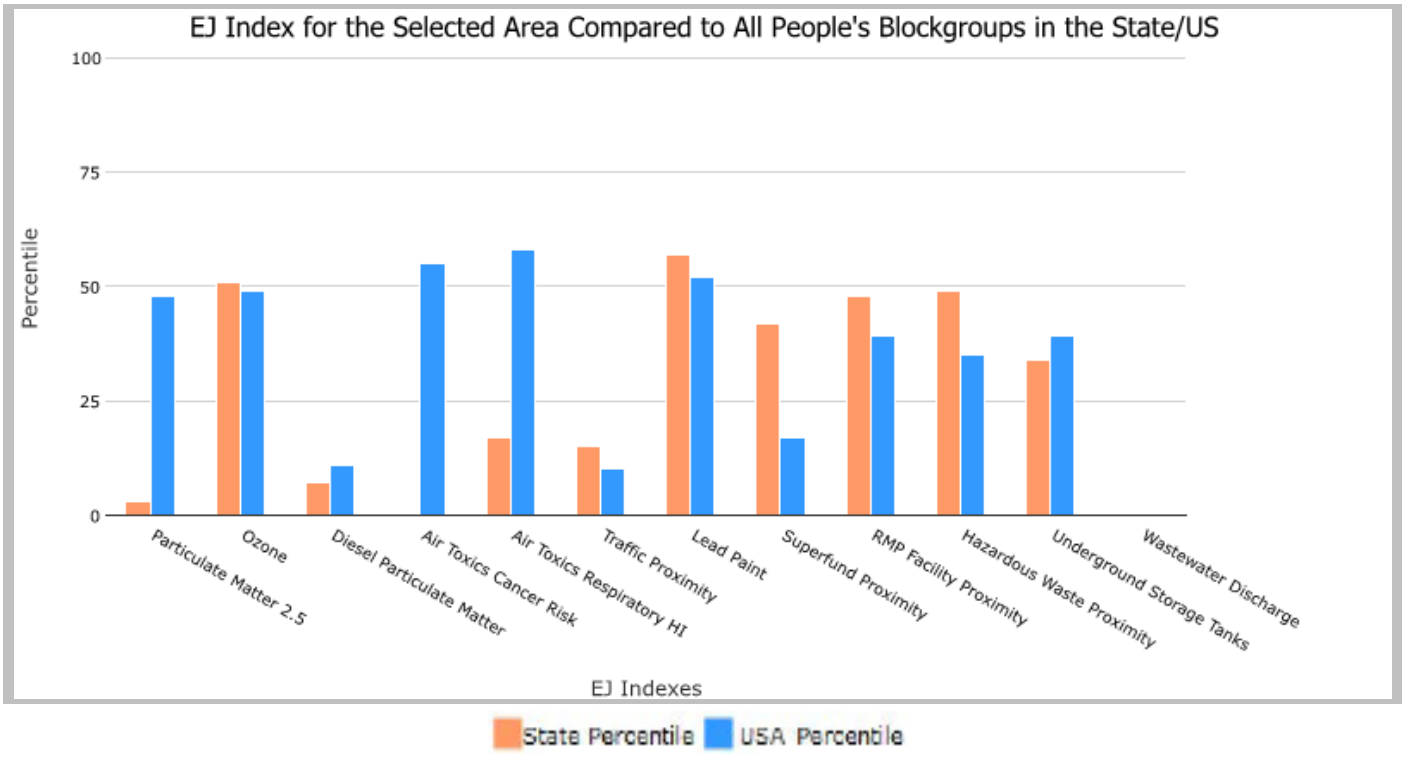
EJScreen Report (Version 2.1)

County: Madison, ARKANSAS, EPA Region 6

Approximate Population: 16,393

Input Area (sq. miles): 837.10

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	3	48
EJ Index for Ozone	51	49
EJ Index for Diesel Particulate Matter*	7	11
EJ Index for Air Toxics Cancer Risk*	0	55
EJ Index for Air Toxics Respiratory HI*	17	58
EJ Index for Traffic Proximity	15	10
EJ Index for Lead Paint	57	52
EJ Index for Superfund Proximity	42	17
EJ Index for RMP Facility Proximity	48	39
EJ Index for Hazardous Waste Proximity	49	35
EJ Index for Underground Storage Tanks	34	39
EJ Index for Wastewater Discharge	N/A	N/A



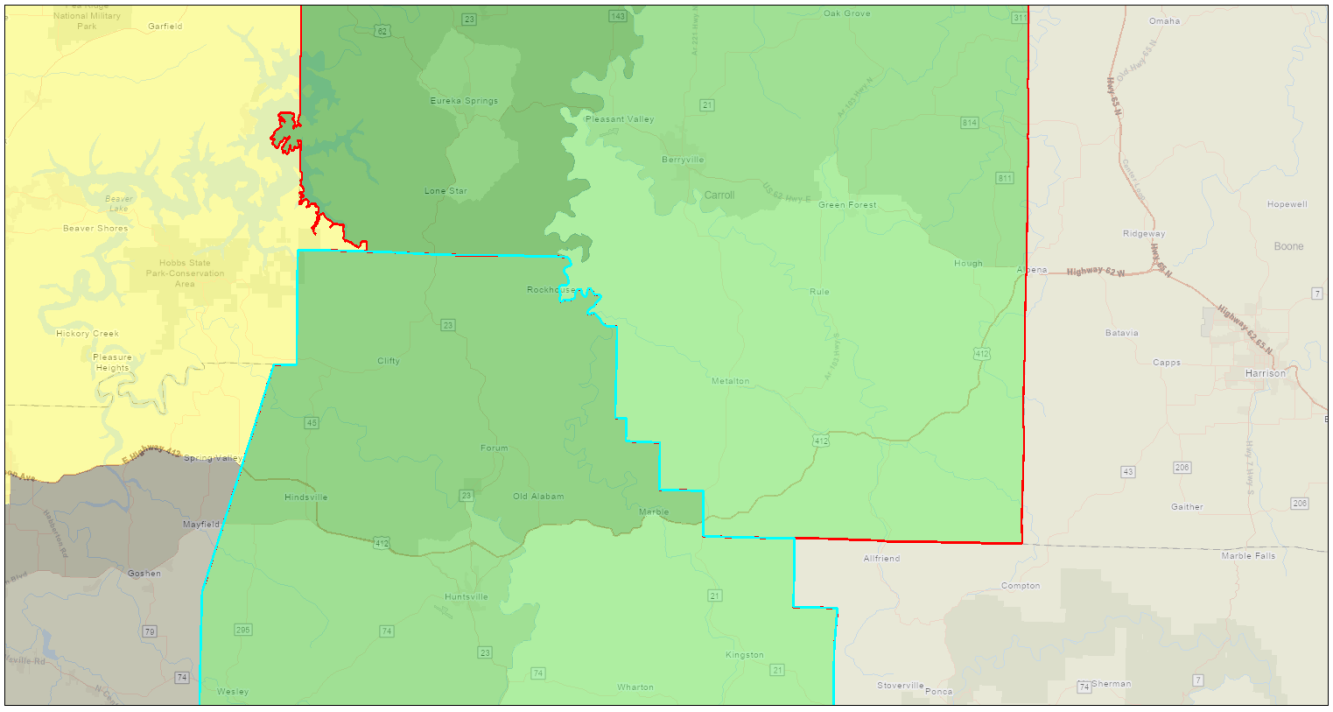
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJScreen Report (Version 2.1)

County: Madison, ARKANSAS, EPA Region 6

Approximate Population: 16,393

Input Area (sq. miles): 837.10



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

EJScreen Report (Version 2.1)

County: Madison, ARKANSAS, EPA Region 6

Approximate Population: 16,393

Input Area (sq. miles): 837.10

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (µg/m^3)	8.31	9.24	2	8.67	42
Ozone (ppb)	41.3	41.2	51	42.5	40
Diesel Particulate Matter* (µg/m^3)	0.0694	0.177	4	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	30	35	0	28	80-90th
Air Toxics Respiratory HI*	0.4	0.48	31	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	6.1	200	13	760	6
Lead Paint (% Pre-1960 Housing)	0.2	0.15	67	0.27	47
Superfund Proximity (site count/km distance)	0.015	0.039	39	0.13	11
RMP Facility Proximity (facility count/km distance)	0.23	0.63	53	0.77	43
Hazardous Waste Proximity (facility count/km distance)	0.31	0.55	60	2.2	38
Underground Storage Tanks (count/km^2)	0.12	1.1	37	3.9	29
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	0.68	N/A	12	N/A
Socioeconomic Indicators					
Demographic Index	27%	36%	41	35%	46
People of Color	12%	28%	34	40%	27
Low Income	42%	39%	53	30%	70
Unemployment Rate	8%	5%	73	5%	74
Limited English Speaking Households	0%	2%	78	5%	0
Less Than High School Education	15%	13%	64	12%	72
Under Age 5	7%	6%	63	6%	65
Over Age 64	19%	17%	58	16%	64

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

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