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FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

STARKVILLE AND EAST MISSISSIPPI AREA POWER IMPROVEMENT PROJECT
ENVIRONMENTAL ASSESSMENT
KEMPER, NOXUBEE AND WINSTON COUNTIES, MISSISSIPPI

The Tennessee Valley Authority (TVA) proposes to improve the existing power supply in the Starkville and eastern Mississippi areas by constructing two separate transmission lines totaling about 52.2 miles. The proposed project would utilize about 363 acres of existing right-of-way (ROW) where TVA has custody and control of the easements and approximately 268 acres of new ROW easements for the planned transmission lines. Fiber-optic ground wire (OPGW) would also be installed to facilitate communications with the TVA network.

The proposed action is the subject of an environmental assessment (EA) prepared by TVA. The EA is incorporated by reference. The EA investigates the potential environmental and socioeconomic effects of the proposed construction, operation, and maintenance of two proposed new transmission lines as well as the purchase of ROW for satisfying the project's purpose and need or taking no action.

Alternatives

Two alternatives (the No Action Alternative and the Action Alternative) were addressed in the EA. TVA also considered other alternatives, including alternative transmission line routes, in identifying its preferred Action Alternative.

Under the No Action Alternative, TVA would not construct the proposed transmission lines to improve the existing power supply in the Starkville and eastern Mississippi areas or to serve East Mississippi Electric Power Association's (EMEPA) upgraded Scooba 161-kV Substation. As a result, the TVA power system in the east Mississippi service area would continue to operate under current conditions including voltage instability, limited operational flexibility, increased risk for substation and transmission overloading, loss of service, and occurrence of violations of North American Electric Reliability Corporation (NERC) reliability criteria. TVA's ability to provide a strong, reliable source of power for continued economic health and future residential and commercial growth in the area would be jeopardized.

Considering TVA's obligation to provide reliable electric service, the No Action Alternative is not a reasonable alternative. However, the potential environmental effects of adopting the No Action Alternative were considered in the EA to provide a baseline for comparison with respect to the potential effects of implementing the proposed action.

Under the Action Alternative, TVA would build two transmission lines to serve TVA's Midway, S. Macon, and Dekalb 161-kV substations and EMEPA's upgraded Scooba 161-kV Substation. The proposed Midway-S. Macon 161-kV Transmission Line and the S. Macon-DeKalb 161-kV Transmission Line would require 52.2 miles of newly constructed lines on about 363 acres of existing ROW where TVA has custody and control of the easement and 268 acres of new ROW. TVA would also install OPGW on the proposed transmission lines to facilitate communications with the TVA network.

Impacts Assessment

The EA documents potential effects to the following resources: water quality (surface water and groundwater); aquatic ecology; vegetation; wildlife; endangered and threatened species (aquatic animals, terrestrial animals, and plants) and their critical habitats; floodplains; wetlands; aesthetic resources (visual resources and noise); archaeological and historic resources; recreation, parks, and managed areas; and socioeconomics.

The early internal review process also considered the potential effects related to prime farmland, transportation, air quality and global climate change, solid and hazardous waste, and health and safety were considered. Because of the nature of the action, any potential effects to these resources were found to be minimal or absent because of the nature of the action.

The proposed transmission line construction activities would involve ground disturbance resulting in the potential for increased erosion and sediment release, which may temporarily affect local surface water and aquatic ecology via stormwater runoff. Aquatic ecology could also be affected by alteration of stream habitat conditions. Because standard best management practices (BMPs) and streamside management zones (SMZs) would be implemented during construction, operation, and maintenance of the proposed project, potential effects to surface water, groundwater and aquatic ecology would be minor and insignificant.

Construction of the proposed transmission lines would result in the clearing of approximately 313 acres of forest. Virtually all forested land in the project area has been previously cleared and the plant communities found there are common and well-represented throughout the region. Converting forested land to managed ROWs would be long-term in duration, but insignificant, because 313 acres represents a small percentage of forest resources in Kemper, Noxubee and Winston counties and the surrounding counties. Also, project-related work would temporarily affect herbaceous plant communities, but these areas would likely recover to their pre-project condition in less than one year. Nearly the entire project area currently has a substantial component of invasive terrestrial plants. Adoption of the Action Alternative would not significantly affect the extent or abundance of these species at the county, regional, or state level. The use of TVA standard operating procedures of vegetating with noninvasive species (TVA 2022) would serve to minimize the potential introduction and spread of invasive species in the project area.

While most of the proposed transmission line would be within existing ROW, construction-associated disturbances and habitat removal within the proposed new and/or expanded ROWs would disperse mobile wildlife into surrounding areas to find new food and shelter sources and to reestablish territories. Species adapted to early successional habitat would return after construction has ended and vegetation has returned. Less mobile individuals may be directly impacted by construction, particularly if clearing activities take place during breeding/nesting seasons. However, the actions are not likely to affect populations of species common to the area, as similarly forested and herbaceous habitat exists in the surrounding landscape. Some migratory birds of conservation concern could be impacted by the proposed actions. Foraging habitat for 14 species exists in the project area. Should mature individuals occur on site, they are expected to flush if disturbed. No direct mortality to adults is anticipated.

No federally designated critical habitat is known from the potentially affected 10-digit HUC watersheds of the proposed project area. The federally listed southern clubshell is not currently known to occur in any of the watersheds crossed by the proposed project and it is not anticipated to occur in any streams within the project area and would not be impacted by activities associated with the proposed project. Therefore, the proposed project would result in no effects to federally listed aquatic species. No federally listed plant species occur in the project area and one population of a state-listed plant species was observed during field surveys of the project area. Seven individuals of state-monitored shellbark hickory would be impacted by project activities. The loss of the population would not result in significant impacts to the species due to the relative species abundance across the state and region. Therefore, no impacts on endangered and threatened plant species and their critical habitats are anticipated under the Action Alternative. The Action Alternative would not significantly impact the populations of state-listed terrestrial animal species or federally protected bald eagles. No impacts are expected to federally listed red-cockaded woodpeckers. The project would not jeopardize the existence of monarch butterfly or alligator snapping turtle, both proposed for federal listing. Field surveys for presence of summer roosting habitat resulted in the identification of approximately 83.9 acres suitable for northern long-eared bat and 313 acres suitable for tricolored bat within the project area. Tree and vegetation clearing could potentially have direct impacts to bat species.

Activities associated with this project were addressed in TVA's programmatic consultation with the U.S. Fish and Wildlife Service on routine actions and federally listed bats in accordance with Endangered Species Act Section 7(a)(2) and completed in April 2018, updated in May 2023. TVA's programmatic consultation was updated again to include the tricolored bat. USFWS issued a Conference Opinion for this update in November 2024 because the tricolored bat had not yet been listed as endangered. TVA has determined that the proposed actions under Alternative B may affect northern long-eared bats and would not jeopardize the continued existence of tricolored bats.

For those activities with potential to affect bats, TVA has committed to implementing specific conservation measures when impacts to federally listed bat species are expected. The following non-routine mitigation measure is needed:

- Because removal of suitable summer roosting habitat would likely occur when bats may be present on the landscape, TVA would contribute funding based on amount of habitat removed towards future conservation and recovery efforts for federally listed bats. Upon activity completion, the funds would be contributed to TVA's Bat Conservation Fund. Impacts to populations of other listed species are not expected.

The proposed transmission line and several access roads would cross the 100-year floodplains of two rivers and several creeks and tributaries in Kemper, Noxubee, and Winston counties. While the proposed transmission line ROWs would cross floodplains, none of the proposed structures would be located withing the 100-year floodplain. However, portions of multiple access roads would be located within the 100-year floodplain. The support structures for the proposed transmission lines would not be expected to result in any increase in flood hazard, either as a result of increased flood elevations or changes in flow-carrying capacity of the streams being crossed.

The following non-routine mitigation measures are needed to prevent an obstruction in the Little Scooba Creek floodway:

- Construction would adhere to the TVA subclass review criteria for transmission line location in floodplains.

- Any fill, gravel or other modifications in the Little Scooba Creek floodway that extend above the pre-construction road grade would be removed after completion of the project, excess material would be spoiled outside of published floodways, and the area would be returned to its pre-construction condition.

By implementing the non-routine mitigation measures above and routine mitigation measures, the proposed project would have no significant impact on floodplains and their natural and beneficial values and would be consistent with Executive Order (EO) 11988.

The proposed project area contains 88 wetland areas, totaling 101.59 acres of wetlands with 25.41 acres of emergent wetland, 5.69 acres of scrub-shrub wetlands and 70.49 acres of forested wetland. While all wetlands within the ROWs would be spanned by the proposed transmission lines, initially any forested or shrub wetlands within the proposed transmission line corridors would be converted to mostly emergent wetlands. TVA has determined that there is no practicable alternative to completely avoiding all wetland impacts. In compliance with the Clean Water Act (CWA) and EO 11990 (Protection of Wetlands), TVA has considered options to avoid and minimize wetland impacts, resulting in the least wetland disturbance practicable.

With wetland avoidance and wetland minimization techniques in place, TVA would comply with all U.S. Army Corps of Engineers (USACE) and Mississippi Department of Environmental Quality (MDEQ) mitigation requirements to compensate for the proposed loss of wetland resources, functions, and values resulting from the proposed Action Alternative. Wetland impacts would be minor on a watershed scale and TVA's proposed action is consistent with USACE, MDEQ and EO 11990 requirements.

The following routine mitigation measures would be followed:

- TVA would obtain the necessary CWA §404/401 permits and required compensatory mitigation to ensure the proposed wetland impacts are compensated to the extent deemed appropriate such that wetland functions and values remain at the current capacity within larger affected basins.

- Required compensatory mitigation would be purchased through an approved wetland mitigation bank per the directive of the USACE and states to ensure no more than minimal impacts to the aquatic environment result and the objectives of the CWA are upheld.

Potential effects associated with the proposed project consist of temporary disturbances during construction (i.e., noise, traffic, and fugitive dust) as well as long-term visual and property value impacts, all of which are limited to communities in the immediate vicinity of the project area. Potential effects from noise would be minor. Potential effects to local visual quality would be minor. The proposed transmission lines would add discordant visual elements to the existing landscape; however, the view of these elements would be partially limited by existing transmission line ROW and human development adjacent to sensitive receptors and residential receptors in the immediate foreground. While the Action Alternative would contribute to a minor

decrease in visual integrity of the landscape, the existing scenic class would not be reduced by two or more levels, which is the threshold of significance of impact to the visual environment. Therefore, visual impacts resulting from the implementation of the Action Alternative would be minor. During construction, operation, and maintenance of the proposed transmission lines, equipment could generate noise above ambient levels. As all construction noise would be temporary in nature and limited to daytime hours, noise impacts from construction of the proposed transmission lines would be minor. For similar reasons, noise related to periodic line maintenance is also expected to be insignificant.

Construction of the transmission lines could cause disruption to recreational areas adjacent to or within a 0.5-mile radius of the project area, including noise, transportation effects, and visual impacts. These impacts would be temporary and minor. Because most of the proposed transmission lines would be built parallel to existing transmission lines, long-term impacts on recreational areas within and in the immediate vicinity of the proposed transmission lines would be insignificant. Ground disturbance and clearing activities associated with construction of the transmission lines could directly impact two managed and natural areas that overlap the project area. These areas include a portion of the Noxubee River at Shaqualak Conservation Site and a portion of Wahalak Creek Hills during the construction phase of the project. Overall, impacts to managed and natural areas would be temporary and minor.

The proposed actions have potential for physical effects on the seven identified archaeological sites that are either eligible or potentially eligible for listing in the National Register of Historic Places (NRHP). There is a linear historic architectural resource that is eligible for the NRHP. The project design would avoid any adverse effects on the linear historic architectural resource. TVA would not install transmission structures or guy wire anchors within the buffers of six of the identified archaeological sites and one structure would be placed within the seventh site. However, this structure would be installed in a portion of the site that lacks any sensitive cultural features. TVA and the Mississippi State Historic Preservation Officer (SHPO) agreed this action would not adversely affect the site.

The following measures would avoid any adverse effects to these archaeological sites:

- TVA will deploy wetland mats within the site buffers of all seven eligible or potentially eligible archaeological sites if construction vehicles must traverse the site, to avoid any ground disturbance. All vegetation clearing within the site buffers would be carried out either by hand or with light-duty or low ground pressure equipment, and stumps will be left in place. Should previously undiscovered cultural resources be identified during project site construction or operations, a TVA archaeologist and consulting parties will be consulted before any further action is taken.

Based on current design and with the restrictions in place for construction, TVA, in consultation with the SHPO and federally recognized Indian tribes, found that the project as proposed would have no effects to any NRHP-listed or eligible archaeological sites in the project footprint, and no adverse effects on architectural resources in the area of potential effect. The SHPO and none of the consulted tribes objected or identified additional resources of concern in the area of potential effect.

Impacts associated with the proposed project on demographics and local employment would be minor. There is the potential for a decrease in property value for those parcels in the vicinity of transmission lines. However, most of the new construction would take place along existing transmission line ROWs and in agricultural or forested areas; residential properties have been avoided to the greatest extent possible. As most homes in the area already have views of existing transmission line ROW or are separated from these structures by a vegetated buffer, any effects to local property values would be minor.

Implementation of the Action Alternative would provide additional power sources in the Starkville and eastern Mississippi service area to increase power reliability in the area. Implementation would also add TVA operational flexibility and efficiency for taking maintenance and construction outages in lower Mississippi and would address voltage stability issues in the Starkville and eastern Mississippi area when nearby TVA transmission lines are out of service. The proposed alternative would strengthen resiliency of the TVA transmission system with additional transmission lines to serve the southern region of the TVA service area in Mississippi and minimize risk during planned outages required for work associated with TVA's strategic fiber initiative. Improved reliability and resilience would result in long-term indirect economic benefits to the area. There would be no direct impact to community facilities or services under the Action Alternative. Implementation of the Action Alternative would not have a notable impact on the demand for emergency services in the area.

The proposed project could result in impacts to nearby residents including temporary impacts such as increased noise, fugitive dust, and air emissions during the construction period, as well as long-term visual impacts, land use limitations, and potential for decreased property value. The proposed project would not result in any substantial long-term emissions or releases of air pollutants, noise, or hazardous materials that would have a direct impact on human health or welfare. Therefore, impacts to associated with the proposed project would be minor and would not be disproportionate, as impacts would be consistent across all communities living along TVA's transmission line network across the Valley.

Potential effects from electromagnetic fields would be minor. The proposed transmission lines would not pose an increased hazard for electric shock or from lightning.

The presence of the proposed transmission lines would present long-term visual effects to the mostly rural character of the local area. However, because the routes of the proposed lines would traverse mostly rural areas and run parallel to existing transmission lines for significant portions of each respective new transmission line route, the transmission lines would not be especially prominent in the local landscape. Likewise, the establishment of easements for the proposed ROW with local landowners would pose a long-term encumbrance on the affected properties. However, the proposed transmission line routes have been designed to utilize existing transmission line easement to the extent practical. Various agricultural land uses could be practiced within the ROW, but any timber production within the ROW would be foregone for the life of the transmission line.

Public Review

TVA developed a public communication plan that included a website with information about the project, a map of the alternative routes, and numerous feedback mechanisms. TVA held two open houses due to the large number of alternative routes, the length of and the distance between the two transmission lines, and the large number of property owners potentially affected by the proposed project. TVA held an in-person open house for the proposed Midway-S. Macon 161-kV Transmission Line on November 21, 2019, in Macon, Mississippi. TVA announced its preferred route for this transmission line in April 2020. Due to Covid safety precautions and restrictions, TVA held a virtual open house for the proposed S. Macon-DeKalb 161-kV Transmission Line from December 3, 2020, through January 4, 2021. Public officials and property owners who could potentially be affected by, or lived near, any of the route alternatives were invited to the in-person and virtual open houses. TVA used local news outlets and notices placed in local newspapers to notify other interested members of the public of the open houses. A 30-day public review and comment period were held following both open houses, during which TVA accepted public comments on the alternative transmission line routes and other issues.

On December 19, 2024, TVA issued the draft EA for public review and comment for 30 days. The comment period ended January 20, 2025. The availability of the draft EA was announced in a TVA media advisory and in newspaper advertisements in the Kemper County Messenger, Louisville Winston County Journal, Macon Beacon and the Starkville Daily News. The public notices indicated stakeholders could visit TVA.com/nepa to review the draft EA and provided instructions for submitting comments on the draft EA. No comments were received on the draft EA.

Mitigation

TVA will implement the routine environmental protection measures listed in the EA. In addition to those routine measures, the following non-routine measures will be implemented to reduce potential adverse environmental effects:

- Because removal of suitable summer roosting habitat would likely occur when bats may be present on the landscape, TVA would contribute funding based on amount of habitat removed towards future conservation and recovery efforts for federally listed bats. Upon activity completion, the funds would be contributed to TVA's Bat Conservation Fund. Impacts to populations of other listed species are not expected.

- To prevent an obstruction in the Little Scooba Creek floodway, construction would adhere to the TVA subclass review criteria for transmission line location in floodplains.

- Any fill, gravel or other modifications in the Little Scooba Creek floodway that extend above the pre-construction road grade would be removed after completion of the project, excess material would be spoiled outside of published floodways, and the area would be returned to its pre-construction condition.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, TVA concludes that the proposed actions included in improving power supply to Starkville and east Mississippi would not be a major federal action significantly affecting the environment. This finding of no significant impacts is contingent upon adherence to the mitigation measures described above. Accordingly, an Environmental Impact Statement is not required.

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Date Signed

Reference

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