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FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

EAGLE CREEK 161-KV TRANSMISSION LINE
CALLOWAY COUNTY, KENTUCKY AND HENRY COUNTY, TENNESSEE

The Tennessee Valley Authority (TVA) proposes to improve the existing power supply in Calloway County, Kentucky, and Henry County, Tennessee. The Paris Board of Public Utilities (Paris BPU), a local power company and distributor of TVA power, plans to locate a new substation in Eagle Creek, Tennessee (Henry County). To provide power to the planned substation, as well as to support the growing electrical load and to increase power reliability in the Paris, Tennessee and Murray, Kentucky areas, TVA proposes to build approximately 16-miles of single-circuit transmission line utilizing steel-pole structures. The new transmission line would begin at TVA's Murray 161-kV Substation in Calloway County. It then extends southeast mostly parallel to TVA's Marshall-Cumberland 500-kV Transmission Line, ending at Paris BPU's planned Eagle Creek 161-kV Substation near Tennessee Highway 140 in Henry County.

The proposed action is the subject of an environmental assessment (EA) prepared by TVA. The EA is incorporated by reference. The EA addresses the construction, operation, and right-of-way (ROW) maintenance of the proposed transmission line.

Alternatives

Two alternatives are addressed in this EA. Under the No Action Alternative (Alternative A), TVA would not implement the proposed action. The Action Alternative (Alternative B) involves the purchase of easements for ROW and the construction, operation, and maintenance of the proposed transmission line.

Under the No Action Alternative (Alternative A), TVA would not construct the proposed 161-kV transmission line. As a result, the TVA power system within the Henry County, Tennessee and Calloway County, Kentucky areas would continue to operate under the current conditions, increasing the risk of voltage and thermal loading problems, loss of service, and occurrences of violations to NERC reliability criteria. TVA's ability to provide reliable service within the TVA Power Service Area would be jeopardized, which would not support TVA's overall mission.

Considering TVA's obligation to provide reliable electric service and support economic development within the Valley, TVA has determined 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 construct, operate, and maintain an approximate 16-mile single-circuit transmission line to power Paris BPU's new Eagle Creek 161-kV Substation. The proposed transmission line would cross through Henry County, Tennessee and Calloway County, Kentucky, and would utilize a combination of new and existing ROW. An approximate 14.5-mile section of the transmission line would be located adjacent to TVA's Marshall-Cumberland 500-kV Transmission Line. This section would utilize both existing ROW and new ROW (60-foot-wide). The remaining 1.5-mile section of new transmission line would be centered on new 100-foot-wide ROW.

In addition to the proposed transmission line, TVA would install a new switch house, two breakers and associated relays at TVA's Murray 161-kV Substation. The existing switch house is owned by Paris BPU and does not have adequate space to accommodate TVA's new equipment. To accommodate the new switch house the fencing in the switchyard would be extended to encompass approximately 1.8 acres of the southeast corner of the substation property. TVA would also provide the standard metering package for Paris BPU to install at their new Eagle Creek 161-kV Substation. The TVA map board displays would be updated to reflect the new transmission assets.

Impacts Assessment

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

If the No Action Alternative were adopted, a decline in the reliability of electric service for some customers would be likely in the future. Service problems and interruptions likely would gradually become more frequent and more severe. These outages would have negative impacts on the ability of businesses in the area to operate. Residents of the area would also incur negative impacts from outages, such as more frequent loss of power. These conditions would diminish the quality of life for residents in the area and would likely have negative impacts on property values in the area. Potential socioeconomic effects under the No Action Alternative would likely affect all populations in the region negatively.

Based on the analysis of the proposed Action Alternative, there would be no effects to geological characteristics. Potential effects from electromagnetic fields would be minor, and the proposed transmission line would not pose an increased hazard for electric shock or from lightning. Because construction of the proposed line would be short-term, potential effects to local air quality would be minor, and the amount of solid waste produced would be minor. Potential effects from noise would be temporary and minor. Potential effects on traffic would likely be minor and short-term in nature. Potential effects to local visual quality would be temporary and minor. Construction, operation, and maintenance of the proposed transmission line could cause shifts in local informal recreation, but these would be minor.

Overall, no disproportionate impacts to disadvantaged populations would occur. Providing an additional source of power would help maintain reliable service in the area, thereby avoiding the potential increase in negative impacts from lack of reliability. No noticeable adverse social or economic effects, including changes in local property values, are likely.

Because appropriate best management practices (BMPs) will be implemented during construction, operation, and maintenance of the proposed transmission line, potential effects to groundwater would be minor and insignificant. For similar reasons, any effects to surface water quality and aquatic life are expected to be temporary and minor.

The proposed transmission line would cross floodplain areas of several streams. Efforts were made during the siting process to avoid or minimize impacts to floodplains. However, because of other social, environmental, and engineering factors considered in the siting process, there was no practicable alternative that would allow for complete avoidance of floodplains. Consistent with Executive Order (EO) 11988, overhead transmission lines and related support structures are considered to be repetitive actions in the 100-year floodplain (46 FR 22845). The

conducting wires of the transmission line would be located well above the 100-year flood elevation. Portions of access roads could be located within the 100-year floodplain, however any road improvements would be done in such a manner that upstream flood elevations would not be increased by more than one foot. The laydown yards would be located outside of the 100-year floodplain, which would be consistent with EO 11988.

To minimize adverse impacts, any road construction or improvements will be done in such a manner that upstream flood elevations will not be increased. To minimize adverse impacts on natural and beneficial floodplain values, TVA will implement standard BMPs during construction and adhere to the TVA subclass review criteria for transmission line location in floodplains. As such, construction, operation, and maintenance of the proposed transmission line would have no significant impact on floodplains.

Construction of the proposed transmission line would result in the clearing of approximately 40 acres of forest. At the local level, this would constitute a minor loss of forest resources. Almost all of the forests within the footprint of the proposed ROW area have been previously cleared. Areas of native vegetation within the proposed ROW and substation construction sites would be adversely affected by clearing, but most sites would likely recover to pre-project conditions within a few years. ROW clearing and maintenance would displace various wildlife species, but would not adversely affect local populations and it is expected that they would return to the project area upon completion of actions.

Two federally and six state-listed aquatic animal species are known from within the Upper Clarks River, Blood River, and Tennessee River watersheds encompassing the proposed project area. No habitat for the federally listed aquatic animal species occurs within the affected area and therefore, no effects would occur. Suitable habitat for state-listed aquatic species may occur in streams intersected by the proposed ROW and associated access roads, however, with the proper implementation of BMPs, any potential impacts to state-listed aquatic species occurring within the project area would be minor and insignificant.

One federally and twenty-two state-listed plant species have been previously reported from within a five-mile vicinity of the project area. One population of five small state-listed Nuttall's oak trees were observed within the proposed ROW that would be cleared. Although permanent, impacts to this state-listed species would be insignificant because of the relatively small size of the population compared to other extant sites in Calloway County, the large, contiguous area of protected suitable habitat along the Blood River, and three newly identified Nuttall's oaks found within the 40 acres of forest adjacent to the project area.

Two federally and twelve state-listed terrestrial animal species were documented within three miles of the project footprint. However, one federally listed terrestrial animal species were assessed based on county occurrence records or the potential for species to occur in the project area. The proposed project may clear potential roosting habitat and increase foraging habitat. Similar habitat is abundant in the project area. With BMPs in place, water quality and hydrology would not be affected. Species are not likely to be impacted by the proposed actions.

Approximately 4 acres of suitable summer roosting habitat for the federally listed northern long-eared bat (NLEB) occurs in the proposed ROW corridor. As part of TVA's Endangered Species Act (ESA) Programmatic Agreement (PA) biological assessment for bats, TVA programmatically quantified and minimized removal of potentially suitable summer roosting habitat during the time of potential occupancy by NLEB. During field surveys TVA documented 36 suitable roost trees along the proposed ROW and within the switching station sites. A number of activities

associated with the proposed action, including tree clearing, were addressed in TVA's PA biological assessment for evaluating impacts of routine actions on federally listed bats in accordance with ESA Section 7(a)(2). For those activities with the potential to affect federally listed bats, TVA committed to implementing specific conservation measures. Therefore, direct and indirect impacts to federally listed bat species are expected to be insignificant.

The proposed project would span 23.98 acres of wetland, requiring the conversion of about 9.35 acres of forested and scrub-shrub wetlands to emergent wetlands. The forested wetlands would be cleared during construction. Similarly, all wetland areas located within the proposed TL ROW would be subject to periodic vegetation management, and maintained as herbaceous or scrub-shrub wetland vegetation or open water. Efforts were made during the TL siting process to avoid or minimize wetlands. However, because of project and topographic constraints, and because of the goal of minimizing impacts to other environmental and social resources, no practicable alternative was available that would allow complete avoidance of wetlands. Potential wetland impacts would be reduced during the TL construction and ROW maintenance activities through implementation of appropriate BMPs and compliance with all federal and state wetland regulations. Due to the minimal wetland conversion proposed relative to forested wetland present at a watershed scale, no significant wetland impacts are anticipated to result from this project. The proposed action is consistent with the Protection of Wetlands EO 11990.

TVA conducted a cultural resource survey to identify historic properties in the undertaking's area of potential effect (APE) and, after consultation with the Tennessee SHPO, voluntarily within a one-half mile radius of Paris BPU's new substation. Based on an assessment of these investigations, there are no National Register of Historic Places (NRHP)-listed or eligible for listing archaeological sites within the APE. The single NRHP-eligible historic structure (CW-590) would not be impacted by any construction activities and the proposed project would not compromise the architectural significance of the resource for which it is recommended eligible for the NRHP. Additionally, there is one historic cemetery (15Cw325, Macedonia Cemetery) located in the APE. Though the Macedonia Cemetery is recommended ineligible, TVA would establish a 100-foot protective buffer around the Macedonia Cemetery for future transmission line maintenance activities. Within the buffer area, no new construction or ground disturbance would be allowed and all vegetation clearing and removal would be carried out by hand and conducted in a manner as to insure no damage to any grave markers or monuments. TVA consulted with the Kentucky SHPO, Tennessee SHPO, and federally recognized tribes with regards to its findings and NRHP eligibility recommendations of archaeological sites and historic architectural resources in the APE. TVA received concurrence on the finding of "no historic properties adversely affected" from the Kentucky and Tennessee SHPOs' offices and from all of the federally recognized tribes that chose to take part in the consultation.

Public Review

TVA developed a public communication plan that included a website with information about the project, a map of the alternative routes, and feedback mechanisms. Property owners who could potentially be affected by, or lived near, any of the route alternatives were invited to a project open house. TVA used local news outlets and notices placed in the local newspapers to notify other interested members of the public. The open house was held at Murray State University in Murray, Kentucky on June 21, 2018. There was only one alternative route identified due to TVA's ability to utilize an existing TVA transmission line ROW corridor between the planned substation and the power source (Murray 161-kV Substation). A 30-day public review and comment period was held following the open house, and TVA accepted public comments on the alternative TL routes and other issues.

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:

- To prevent the spread of five-leaf akebia, TVA would remove five–leaf akebia from the ROW. TVA's ROW Forester or Environmental Technician would contact the TVA botanist before and after construction to coordinate application of aquatic approved herbicides to five-leaf akebia vines in the proposed project area during the growing season.

- A protective buffer of 200-foot-radius would be implemented during transmission line construction and maintenance activities around the opening of a possible cave observed in the existing transmission line ROW to prevent vehicle use outside of access roads, herbicide use, and heavy machinery operation.

- During revegetation and maintenance activities along the ROW, no herbicides with groundwater contamination warnings would be used within the State Designated Source Water Protection Area as identified in the office level sensitive area review database.

- TVA would establish a 100-foot protective buffer around the Macedonia Cemetery (15Cw325) for future transmission line maintenance activities. TVA would implement the following restrictions within the buffer area:

    - No new construction or ground disturbance.
    - All vegetation clearing and removal would be carried out by hand and conducted in a manner as to insure no damage to any grave markers or monuments.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that the proposed actions included in improving power supply to Henry County Henry County, Tennessee and Calloway County, Kentucky 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.

10/08/2020

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Date Signed

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