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## **FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY**

WEST BATESVILLE-NORTH OAKLAND, MISSISSIPPI 161-KV TRANSMISSION LINE

The Tennessee Valley Authority (TVA) proposes to construct, operate, and maintain a new 161-kilovolt (kV) transmission line (TL) in an area of northern Mississippi served by Tallahatchie Valley Electric Power Association (TVEPA), a local power company and distributor of TVA power. The TL would extend from TVA's West Batesville 161-kV Substation to TVA's North Oakland 230-kV Substation. This new TL would also connect into a new West Charleston 161-kV Substation that TVEPA is planning to build in Tallahatchie County. The total length of the proposed TL is approximately 41 miles. The proposed project would require approximately 497 acres of new right-of-way (ROW).

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 ROW maintenance of the proposed TL.

### **Alternatives**

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

Under the No Action Alternative, TVA would continue to provide power to TVEPA through an intermediary utility, TVA would not construct the proposed TL, and TVEPA would not construct the proposed new substation. As a result, the TVEPA load in the Charleston service area would continue to have poor reliability, poor response times and be operated in a manner not satisfactory to TVEPA. TVA's ability to continue to provide reliable service to address economic development and future residential and commercial growth in the area would be jeopardized.

The Action Alternative involves the construction, operation, and maintenance of a 29-mile 161-kV TL to power a new TVEPA 161-kV substation in Charleston, Mississippi and an additional 12-mile 161-kV TL to TVA's existing North Oakland 230-kV substation. TVA would provide the standard revenue metering package for TVEPA to install its new substation. The new TL would consist of approximately 38 miles of single-circuit pole construction, and approximately 3 miles of double-circuit pole construction to facilitate the TL connection into the new West Charleston Substation centered on new 100-foot-wide ROW. Additionally, TVA would install three switch structures. The TVA map board displays would be updated to reflect the new facilities. The Action Alternative is TVA's preferred alternative.

### **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; 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 our 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 TL 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 insignificant, and the amount of solid waste produced would be minor. Potential effects from noise would be temporary and insignificant. Potential effects on traffic would likely be minor and short-term in nature. Potential effects to local visual quality would be minor. Construction, operation, and maintenance of the proposed TL could cause shifts in local informal recreation, but these would be minor.

Overall, the Action Alternative would have no disproportionate impacts to disadvantaged populations. 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) would be implemented during construction, operation, and maintenance of the proposed TL, 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 TL 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, or minimization of potential floodplain impacts. Consistent with Executive Order (EO) 11988, overhead TLs and related support structures are considered to be repetitive actions in the 100-year floodplain (46 FR 22845). The conducting wires of the TL would be located well above the 100-year flood elevation. Portions of some access roads could be located within the 100-year floodplain. The switches would be located inside the existing West Charleston substation, outside of the 100-year floodplain, which would be consistent with EO 11988. To minimize adverse impacts, any road construction or improvements would be done in such a manner that upstream flood elevations would not be increased. To minimize adverse impacts on natural and beneficial floodplain values, TVA would implement standard BMPs during construction and adhere to the TVA subclass review criteria for TL location in floodplains. As such, construction, operation, and maintenance of the proposed TL would have no significant impact on floodplains. The proposed substation, to be built by TVEPA, would be located well outside the 100-year floodplain, which would be consistent with EO 11988.

Construction of the proposed TL would result in the clearing of approximately 315 acres of forest. At the local level, this would constitute a minor loss of forest resources. Areas of native vegetation within the proposed ROW 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.

With the implementation of standard BMPs, the proposed project would not affect the habitat of federally listed bald eagle or wood stork. Therefore, there would be no impacts to these species. Implementation of the Proposed Action Alternative would not affect federally listed plant species or designated critical habitat because neither occurs in the proposed ROW, access roads or proposed substation site. However, adoption of the Action Alternative would negatively impact state-listed Allegheny-spurge, longstyle sweet cicely, sharp-scale sedge, and yellowwood. The removal of the two Yellowwood trees present in the ROW would negatively impact the species, but the impacts would be insignificant as local records indicate larger population sizes nearby. There is abundant similar habitat for the Allegheny-spurge and sharp-scale sedge nearby; therefore, the impacts would be insignificant. TVA would implement the mitigation measures listed below to minimize impacts to the longstyle sweet cicely.

- The location of the longstyle sweet cicely would be included in TVA's sensitive area review database.
- Construction personnel would consult with a TVA botanist before clearing and construction activities to coordinate avoidance measures and access in the portions of the ROW where Longstyle sweet cicely occurs.
- In areas where the species occurs, forest clearing would be conducted with a feller buncher (or other similar piece of machinery) that can clear forest without disturbing the soil profile.

Approximately 80.2 acres of suitable summer roosting habitat for the federally listed northern long-eared bat occurs in the proposed ROW corridor. To avoid potential direct impacts to the northern long-eared bat, any tree removal in areas determined to provide suitable summer roosting habitat for this species would be prohibited between June 1 and July 31 (northern long-eared bat pup season). In a November 2, 2016 letter, the USFWS concurred with TVA's findings that the proposed project may affect the northern long-eared bat, but that the proposed action would not result in prohibited incidental takes pursuant to the final 4(d) rule. Thus, TVA's obligations under Section 7(a)(2) of the ESA have been fulfilled for this project.

The proposed project would span 15.19 acres of wetland, requiring the conversion of about 8.1 acres of forested wetlands to emergent/scrub-shrub wetlands. The forested wetlands would be cleared during construction and then maintained as emergent/scrub-shrub wetlands for the life of the line. 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 EO 11990 (Protection of Wetlands).

Based on the results of its surveys, TVA finds that the project, as currently planned, has the potential to affect one previously recorded archaeological site (22TL643) and eight newly recorded archaeological sites (22PA1208, 22PA1231, 22TL1449, 22TL1453, 22TL1454, 22TL1455, 22TL1457, and 22TL1458). Per consultation with the Mississippi State Historic Preservation Officer (SHPO), the portion of site 22TL643 within the APE does not contribute to the site's eligibility and would therefore not require avoidance or minimization. Access road use, vegetation clearing, and installation of TL structures would have the potential to cause effects to NRHP-eligible or undetermined archaeological sites within the APE. TVA has proposed measures to the SHPO that would avoid or minimize the undertaking's effects on the three sites (22TL1449, 22TL1455, and 22TL1458), and TVA will implement those measures (described below) in order to avoid or minimize project impacts.

- TVA would place a 10-meter sensitive buffer surrounding each of the three sites. Restrictions would be added to the design that must be followed by crews when they are working within 10 meters of any NRHP-eligible or NRHP-undetermined archaeological site. No transmission structures (poles or guy wires) will be installed within the sensitive area buffers. The buffers would be marked on all project drawings and work crews would be instructed to adhere to the appropriate restrictions.
- TVA would restrict equipment use to the existing roads, restrict use of the roads to times when the ground is dry and firm, or require use of low ground pressure equipment or wetland mats on access roads.

TVA finds that with the implementation of the proposed design conditions and the above measures, sites 22TL1449, 22TL1455, and 22TL1458 would not be adversely impacted under the proposed action alternative. TVA finds that the proposed undertaking would have a visual effect on the sole NRHP-eligible architectural property located in the APE, 135-CHA-0011 (Old Masonic Cemetery). However, TVA also finds that the effect would not be adverse due to modern development that has compromised the historic setting of the resource. The Mississippi SHPO has concurred with TVA's determination and findings for this architectural property. None of the consulted tribes objected to this finding.

TVA also found in consultation that the undertaking would result in an adverse effect on one NRHP-eligible archaeological site, 22TL1453. TVA proposes to enter into a Memorandum of Agreement (MOA) with the Mississippi SHPO and with any of the consulted federally recognized Indian tribes who agree to participate as a concurring party, for the resolution of the undertaking's adverse effect on site 22TL1453. The MOA will stipulate that TVA shall mitigate the adverse effect by completing a Phase III data recovery investigation of 22TL1453, which will furnish data that can be used to address important research questions. The Mississippi SHPO agreed that the MOA and mitigation are appropriate courses of action to resolve the adverse effect.

### **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. Public officials and property owners who could potentially be affected by, or lived near any of the route alternatives were invited to the two project open houses. TVA used local news outlets and notices placed in the local newspapers to notify other interested members of the public of the open houses. The Open Houses were held in the City of Batesville on July 28, 2014 and in the City of Charleston on July 29, 2014. At the open houses, TVA presented a network of alternative TL routes, comprised of 32 different line segments. A 30-day public review and comment period was held

following the open houses, 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 avoid potential impacts to the Mississippi state-listed plant longstyle sweet cicely in the ROW, TVA would implement the following mitigation measures.
  - The location of the longstyle sweet cicely would be included in TVA's sensitive area review database.
  - Construction personnel would consult with a TVA botanist before clearing and construction activities to coordinate avoidance measures and access in the portions of the ROW where longstyle sweet cicely occurs.
  - In areas where the species occurs, forest clearing would be conducted with a feller buncher (or other similar piece of machinery) that can clear forest without intentionally disturbing the soil profile.
- To remove any potential for direct effects to the federally listed northern long-eared bat, any tree removal in the 80.2 acres of suitable summer roosting habitat for this species would occur between August 1 and May 31, outside of the roosting season.
- The proposed action would adversely affect NRHP-eligible archaeological site 22TL1453. TVA will enter into a Memorandum of Agreement with the Mississippi State Historic Preservation Officer, and with any of the consulted Indian tribes who agree to participate as a concurring party, for the resolution of the undertaking's adverse effect on site 22TL1453. The MOA will stipulate that TVA shall mitigate the adverse effect by completing a Phase III data recovery plan.
- For each NRHP undetermined or eligible site affected by access road use or vegetation clearing, TVA would implement the conditions below to avoid or minimize project impacts. TVA finds that with adherence to these conditions, the proposed action would not result in adverse effects to three newly recorded NRHP-undetermined archaeological sites 22TL1449, 22TL1455, and 22TL1458.
  - TVA would place a 10-meter sensitive buffer surrounding each of the three sites. Restrictions would be added to the design that must be followed by crews when they are working within 10 meters of any NRHP-eligible or NRHP-undetermined archaeological site. No transmission structures (poles or guy wires) will be installed within the sensitive area buffers. The buffers would be marked on all project drawings and work crews would be instructed to adhere to all restrictions.
  - TVA would restrict equipment use to the existing roads, restrict use of the roads to times when the ground is dry and firm, or require use of low ground pressure equipment or wetland mats on access roads.

## Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that the proposed action of constructing a 41-mile 161-kV TL to supply power to the Charleston service area and new TVEPA substation 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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October 27, 2017

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Date Signed