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**Project Name:** Bristol, Tennessee Area Power Improvement Project  
**Project Number:** 2023-1

**FINDING OF NO SIGNIFICANT IMPACT**  
**TENNESSEE VALLEY AUTHORITY**  
BRISTOL, TENNESSEE AREA POWER IMPROVEMENT PROJECT  
FINAL ENVIRONMENTAL ASSESSMENT  
SULLIVAN COUNTY, TENNESSEE

Bristol Tennessee Essential Services (BTES) plans to construct a new South Bristol 161-kV Substation located between Weaver Pike and State Route 394 in Bristol, Tennessee. Tennessee Valley Authority (TVA) proposes to build the Sullivan-South Bristol 161-kV Transmission Line and the Bluff City-South Bristol 161-kV Transmission Line totaling approximately 14.2 miles to serve the new substation. TVA would utilize about 40.5 acres of existing right-of-way (ROW) and 131.6 acres of new ROW easements for the new 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 addresses the construction, operation, and right-of-way maintenance of the proposed transmission lines.

**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 serve BTES' planned South Bristol 161-kV Substation. As a result, the TVA power system in the Bristol service area of Sullivan County would continue to operate under current conditions, increasing the 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 161-kV transmission lines to serve BTES' planned South Bristol 161-kV Substation. Approximately 14.2 miles of ROW would be required for the Sullivan-South Bristol and Bluff City-South Bristol 161-kV transmission lines utilizing both new and existing ROW. TVA proposes to acquire 95.3 acres of new ROW easement for the Sullivan-South Bristol Transmission Line and 36.3 acres of new ROW easement for the Bluff City-South Bristol Transmission Line. Additionally, the Sullivan-South Bristol line and the Bluff City-South Bristol Transmission Lines would utilize 35.7 acres and 4.8 acres, respectively, of existing ROW easements. TVA would also install OPGW to facilitate communications with the TVA network.

## Impacts Assessment

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

Potential effects related to prime farmland, transportation, air quality, global climate change, solid waste, hazardous and nonhazardous wastes, and health and safety were considered. Potential effects on these resources were found to be minimal or absent because of the nature of the action.

If the No Action Alternative were adopted, TVA would not construct the proposed transmission lines to serve BTES' planned South Bristol 161-kV Substation. As a result, the TVA power system in the Bristol service area would continue to operate under current conditions, increasing the risk for substation and transmission overloading, loss of service, and occurrence of violations of 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.

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 62.2 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 62.2 acres represents a small percentage of forest resources in Sullivan 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's BMPs, including vegetating with noninvasive species, would serve to minimize the potential introduction and spread of invasive species in the project area (TVA 2022).

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. Less mobile individuals may be lost as a result of 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 thirteen species exists in the project area. Should individuals occur on site, they are expected to flush if disturbed. No direct mortality is anticipated.

No designated critical habitat for aquatic species occurs within the Beaver Creek and Boone Lake South Fork Holston Watershed in Sullivan County. The federally listed tan riffleshell and Cumberland monkeyface are both considered extirpated from the watersheds encompassing the project area; 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 no populations of state-listed species were observed during field surveys of the project area. Therefore, no impacts on endangered and threatened plant species and their critical habitats are anticipated under the Action Alternative. The state-listed common barn owl and hairy-tailed mole individuals may be directly impacted during construction of the transmission lines; however, impacts to populations would be negligible. Potential indirect effects to the federally listed Indiana bat and the northern long-eared bat are possible due to removal of approximately 37.17 acres of suitable summer roosting habitat. However, TVA would integrate on-going standard BMPs, SMZs, and procedures that are designed to avoid and minimize impacts to federally or state-listed species during site preparation, construction, and on-going maintenance activities. In a letter dated August 2, 2023, the U.S. Fish and Wildlife Services concurred with TVA's determinations that the proposed TVA action would not impact Cumberland monkeyface, is not likely to adversely affect federally listed gray bat, Indiana bat, and northern long-eared bat and would not jeopardize the continued existence of tricolored bat and monarch butterfly. The Proposed Action would not impact the populations of state-listed species.

While the proposed transmission line ROWs would cross floodplains, none of the proposed structures would be located within 100-year floodplains. 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. By implementing the mitigation measures described in the EA and the use of standard BMPs, 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, and when applicable, EO 13690.

ROW construction would involve tree clearing and conversion of 0.41 acres of forested wetland, comprising 0.28 percent of mapped forested wetland across the Beaver Creek watershed (0601010205). TVA has determined that there is no practicable alternative to completely avoiding all wetland impacts. These wetland impacts would be mitigated through adherence to Clean Water Act permit requirements and implementation of applicable compensatory mitigation measures identified through the permitting process. In a letter dated October 19, 2023, TVA reserved 0.51 credits from the Lick Creek Wetland Mitigation Bank Number 2 for the permanent conversion of 0.41 acre of forested wetland to emergent, meadow-like wetland habitat for the perpetuity of the proposed transmission line's existence. Wetland impacts would be minor on a watershed scale and TVA's proposed action is consistent with U.S. Army Corp of Engineers, Tennessee Department of Environment and Conservation, and EO 11990 requirements.

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 footprint. 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. A third managed and natural area adjacent to the project area could be indirectly impacted during the construction phase of the project. Overall, impacts to managed and natural areas would be temporary and minor.

TVA, in consultation with the Tennessee State Historic Preservation Officer (SHPO) and federally recognized Indian tribes, found that the project would not negatively impact any listed or eligible National Register of Historic Places-listed archaeological or architectural sites. The SHPO concurred with TVA's findings in letters dated November 20, 2023 (for the transmission lines ROW), March 25, 2024 (for the access routes), and February 26, 2024 (for the results of the Phase II testing and architectural addendum survey). TVA received concurrence for no adverse effect from the Eastern Shawnee of Oklahoma for the transmission line ROWs on December 12, 2023, concurrence on the findings of the Phase II testing from Shawnee Tribe on February 28, 2024, and concurrence for the findings of the access routes survey from the Eastern Shawnee on March 27, 2024, and the Shawnee Tribe on April 15, 2024.

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 Bristol service area to alleviate loading concerns. The current electric supply available in the vicinity of Bristol is not capable of supporting a large industrial load. The proposed alternative would allow TVA to meet the foreseeable power demand for the area as well as providing BTES with additional operating flexibility and would ensure a continuous, reliable source of electric power in Bristol service area, resulting 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 in environmental justice communities, 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 environmental justice populations associated with the proposed project would be minor and would not be disproportionate, as impacts would be consistent across all communities (i.e., environmental justice and non-environmental justice) 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, but the proposed transmission line routes would 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 a virtual open house from January 14 to February 16, 2021. Public officials and property owners who could potentially be affected by, or lived near, any of the route alternatives were invited to the virtual open house. TVA used local news outlets and notices placed in local newspapers to notify other interested members of the public of the virtual open house. The virtual open house included a virtual interactive map that allowed attendees to enter their address to see how the proposed project might affect their property. A toll-free phone number was provided to facilitate comments for those who did not want to submit comments through the virtual open house, email or U.S. mail. A 30-day public review and comment period was held following the virtual open house, during which TVA accepted public comments on the alternative transmission line routes and other issues.

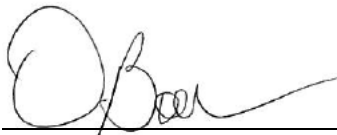
### **Mitigation**

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:

- Clearing would occur during the inactive season between November 1<sup>st</sup> and March 15<sup>th</sup> to avoid direct impacts to bat species.
- Construction would adhere to the TVA subclass review criteria for transmission line location in floodplains.
- Any road improvements or construction would be done in such a manner that upstream flood elevations would not be increased by more than 1.0 foot.
- Excess material would be spoiled outside of published floodways.

### 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 the Bristol service area of Sullivan County 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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April 19, 2024  
Date Signed

### Reference

Tennessee Valley Authority (TVA). 2022. A Guide for Environmental Protection and Best Management Practices for Tennessee Valley Authority Construction and Maintenance Activities, Revision 4. Edited by S. Benefield, R. Brannon, Z. Buecker, C. Buttram, B. Dalton, G. Dalton, C. Henley, W. Martin, A. Masters, C. Phillips, C. Suttles, and R. Wilson. Chattanooga, TN. Retrieved from [https://tva-azr-eastus-cdn-ep-tvawcm-prd.azureedge.net/cdn-tvawcma/docs/default-source/energy/transmission/a-guide-for-environmental-protection-and-best-management-practices-for-tva-construction-and-maintenance-activities-august-2022ea9924e6-329f-4d3a-a0ac-d66bb9aa0894.pdf?sfvrsn=b9e08843\\_3](https://tva-azr-eastus-cdn-ep-tvawcm-prd.azureedge.net/cdn-tvawcma/docs/default-source/energy/transmission/a-guide-for-environmental-protection-and-best-management-practices-for-tva-construction-and-maintenance-activities-august-2022ea9924e6-329f-4d3a-a0ac-d66bb9aa0894.pdf?sfvrsn=b9e08843_3) (n.d.).