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FINDING OF NO SIGNIFICANT IMPACT

TENNESSEE VALLEY AUTHORITY

ASPEN GROVE-WESTHAVEN 161-kV TRANSMISSION LINE

The Proposed Action

The Tennessee Valley Authority (TVA) proposes to build a new single-circuit, 161-kV transmission line from Middle Tennessee Electric Membership Corporation's (MTEMC) existing Aspen Grove Substation to MTEMC's planned Westhaven Substation in Williamson County, Tennessee, by 2005. The transmission line, four miles in length, would be built on new right-of-way 100 feet in width with the exception of the section of the route alternatives parallel to the existing Mack Hatcher Parkway, which would have widths of 30 to 60 feet, and along the section of the route parallel to Del Rio Pike. In total, less than 50 acres would be impacted by the new right of way. The transmission line would utilize single-pole steel structures that would be painted a dark color (Franklin Green).

Background

The purpose of TVA's proposed action is to serve MTEMC's planned Westhaven Substation. Only three relatively long distribution circuits now serve the area, which already averages an annual outage rate about 30 percent higher than the remainder of the MTEMC system. These three lines are heavily loaded at present, and their loading is projected to continue to increase. Planned residential and commercial development in the West Franklin area coupled with future development that will utilize the expanding sewage and road infrastructure are expected to continue this trend. Despite recent upgrades to its distribution system, MTEMC studies show that without changes, the capacity of its system to meet the load in the West Franklin area will be exceeded as early as 2005. To address the issue of an adequate and reliable supply of electricity to its service territory in the western portion of Williamson County, Tennessee, MTEMC decided to build a new 161-kV substation west of the city of Franklin near the Westhaven Subdivision. TVA's proposed action would relieve overloading problems on MTEMC's distribution system and provide a more reliable source to the West Franklin area.

Alternatives

While planning this project, TVA considered various means of connecting the TVA system with MTEMC's planned substation and providing an adequate and reliable supply of electricity to the West Franklin area. The proposed action (the preferred alternative) allows TVA to meet these project needs in an economical and environmentally acceptable manner. The No Action Alternative is not preferred because it would not meet the project needs.

During the development of the proposed action, TVA considered four transmission line corridor options into the MTEMC service area and the planned substation. Within the preferred corridor option, three alternative routes and four alternative route segments were evaluated for the proposed transmission line from MTEMC's existing Aspen Grove 161-kV Substation to sites identified by MTEMC for a new substation. The preferred transmission line route was selected based on a number of factors including public input, minimization of environmental impacts, and severance concerns, and avoidance of cemeteries, schools, and other cultural features. The route siting process and the preferred route are described in detail in the Environmental Assessment (EA).

Impact Assessment

The EA concludes that the impacts to terrestrial plant and animal communities would be minor and insignificant. No uncommon plant or animal communities occur in the project area. Less than 10 acres of new transmission line right-of-way is forested and would be converted to nonforested habitats. The forest in this area is already heavily fragmented, and the impacts of the resulting forest loss and increased forest fragmentation would be small. No federally-listed endangered or threatened species are known to occur or are likely to occur within the project area, and consequently no impacts to federally-listed species are anticipated. Habitat for two state-listed terrestrial animals could be affected; however, alternative habitat is common in the area and impacts to them would be insignificant. Three aquatic species listed as in need of management in Tennessee could occur in the project vicinity. Any impacts to these species, however, would be insignificant with the implementation of Best Management Practices including erosion control measures and avoiding construction near streamside management zones during spawning season. The proposed transmission line would not cross any wetland areas.

The proposed transmission line is in the watershed of the Harpeth River in the Cumberland River basin. The transmission line crosses the Harpeth River in three locations, one perennial stream, and one intermittent stream. No unusual aquatic communities are known from these watercourses. The Harpeth River in the vicinity of the proposed action is classified as partially supporting its designated uses. Best Management Practices and other streamside protection measures would be used to help ensure that the impacts of transmission line construction and operation on area streams are minimized. With the implementation of these measures, impacts to streams, aquatic life, and water quality are expected to be insignificant.

Portions of the transmission line would be located in identified floodplains. Construction in these areas would not result in any increase in flood hazard, and the proposed action is consistent with the Executive Order on Floodplains. The project is compatible with current land uses, and the proposed action would not negatively affect prime farmland. Impacts to recreation activities, transportation, and visual aesthetics would be insignificant. No parks, managed areas, or ecologically significant sites would be affected.

Twelve archaeological sites, 29 historic structures, and 1 historic district were identified during a survey of the project area. One previously identified archaeological site, the Harpeth River Historic District (HRHD), and 18 of the historic structures are listed in the National Register of Historic Places or are eligible for listing.

The proposed action would not impact any known eligible archaeological sites. The transmission line was rerouted to reduce impacts to eligible historic properties; however, adverse effects would occur to the HRHD. The Tennessee State Historic Preservation Officer (SHPO) has concurred with TVA's determination of adverse impacts and under terms and stipulations of a Memorandum of Agreement (MOA), adverse effects on historic properties would be mitigated and are not considered significant.

Mitigation

The siting process TVA used for the proposed line sought to avoid or limit potential environmental impacts wherever feasible. In addition to this effort, other mitigation measures have been identified during the review of the project. Many of these are standard measures that TVA routinely implements with all of its transmission line projects, such as the use of Best Management Practices and other practices listed in the appendixes of the EA. These include the establishment of streamside management zones to protect against adverse impacts to water quality and aquatic resources. The following mitigation measures would be implemented to help reduce the environmental impacts that could result from the proposed action:

<u>Protection of Aquatic Resources and Water Quality</u>

- All intermittent and perennial watercourse crossings will be designated as Level B, Protection of Important Permanent Streams, as outlined in Muncy (1999).

- TVA stream bank stabilization experts will implement an erosion control plan to stabilize each watercourse crossing.

- To provide bank stabilization and a certain degree of canopy cover, stream banks will be planted using native, low-growing, deciduous, and/or scrub/shrub vegetation.

- In order to minimize impacts to aquatic habitat during spawning season, construction near streams will not occur from late March through late July.

<u>Protection of Historical Resources</u>

- TVA will implement the MOA signed and executed by TVA and the Tennessee SHPO on October 1, 2004.

- Transmission line structures and associated hardware for this project will be painted or otherwise be colored "Franklin green," a mixture of black and green, to minimize visual effects further.

- If any eligible identified or inadvertently discovered archaeological sites will be traversed by heavy equipment, low ground-pressure-type equipment will be used when soil conditions are dry and firm.

- If at all feasible, no structures will be located within the boundaries of the eligible identified or inadvertently discovered archaeological sites.

- If avoidance is not feasible, these areas will be subject to further evaluation and TVA, in consultation with the Tennessee SHPO and other consulting parties, will develop and implement a treatment plan for archaeological data recovery for those portions of the site that will be adversely affected under the terms of an MOA pursuant to Section 106 of the National Historic Preservation Act.

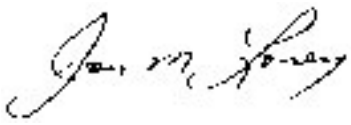
- Single-pole steel structures will be used where feasible within the boundaries of the HRHD and within the viewsheds of historic structures.

- Alterations (i.e., structure height, span distance) within the preferred transmission line route to minimize its effects on a sensitive area of the district, a specific historic structure, or any other contributing resource will be implemented whenever prudent and feasible.

Conclusion and Findings

The Final EA for this proposal concludes that construction and operation of the transmission line would not result in significant adverse impact upon the environment. This conclusion takes into account the implementation of the standard commitments, such as the use of Best Management Practices. It is also based on the implementation of the mitigation and avoidance measures mentioned above.

Environmental Policy and Planning's NEPA Administration staff reviewed the Final EA and agreed with this conclusion, and determined that the preparation of an Environmental Impact Statement is not required.



October 18, 2004

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Date Signed