

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
SOUTH JACKSON-SOUTH MEMPHIS 161-KV TRANSMISSION LINE TAP TO
GALLOWAY SUBSTATION

The Proposed Action

The Tennessee Valley Authority (TVA) proposes to construct a new single-circuit, 161-kV transmission line tap from its existing South Jackson-South Memphis 161-kV Transmission Line to Southwest Tennessee Electric Membership Corporation's (SWTEMC) planned Galloway Substation in Fayette County, Tennessee, by the summer of 2005. The transmission line, 5.8 miles in length, would be built on new right-of-way 100 feet in width and occupy about 70 acres.

Background

The purpose of the proposed action is to serve the planned Galloway Substation and help provide an adequate and reliable supply of electricity to SWTEMC's service territory in Fayette County. The transmission lines serving the Galloway area are heavily loaded at present, and their loading is projected to continue to increase. Planned residential and commercial development in the west Fayette County area, coupled with future development that will utilize the expanding Interstate 40 road interchange, are expected to continue this trend. The proposed action would address this need by providing a new 161-kV connection to the TVA transmission system.

Alternatives

While planning this project, TVA and SWTEMC considered various means of providing an adequate and reliable supply of electricity to the Fayette County area. In addition to the proposed action (the Preferred Alternative) and the No Action Alternative, TVA considered one additional Action Alternative. Under this additional alternative, SWTEMC would increase the transformer capacity at its Mason 69-kV Substation and TVA's Covington 161-kV Substation. The distributor would also reconductor 11 miles of existing 69-kV transmission line and build 12 miles of new transmission line. This alternative is not TVA's Preferred Alternative because it would result in both higher costs to SWTEMC and have potentially similar or greater impacts as the proposed action due to the additional length of new transmission line. In addition, this alternative would not provide service to the Galloway Substation that SWTEMC has decided to construct. The No Action Alternative is not preferred because it would not meet the existing and projected power demands of the project area.

During the development of the proposed action, TVA considered seven alternative routes for the proposed transmission line. These alternative routes run roughly south to north from the existing South Jackson-South Memphis 161-kV Transmission Line to the

site of the planned Gallaway Substation. The preferred transmission line route was selected based on a number of factors including public input, reduction of potential environmental impacts, avoidance or lessening severance of property, and avoidance of cemeteries, schools, and other cultural features. This preferred route is analyzed in detail in the Environmental Assessment (EA).

Impacts 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. Of the approximately 70 acres of new transmission line right-of-way, approximately 28 acres are forested and would be converted to nonforested habitats. 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. Two terrestrial plants, six terrestrial animals, and one aquatic animal, all state listed, have been reported from the project area. Potential habitat along the proposed transmission line was identified for four state-listed terrestrial animals. These species could be affected; however, alternative habitat is common in the area and impacts to them would be insignificant. One aquatic species listed as in need of management in Tennessee could occur in the project vicinity. Any impacts to this species, however, would be insignificant with the implementation of Best Management Practices (BMPs) including erosion control measures.

The proposed transmission line would cross three separate wetland areas with a total area of about 1.2 acres. Approximately 1 acre of the wetlands is forested, and the remainder is emergent or scrub-shrub wetland. These wetland areas meet United States Army Corps of Engineers (USACE) parameters for wetlands regulated under the Clean Water Act; however, the USACE determined that the wetlands do not fall under Federal jurisdiction. Impacts to wetlands would be minimized through use of BMPs, and overall wetland impacts would be insignificant.

The proposed transmission line is in the watershed of the Loosahatchie River in the Mississippi River basin. The transmission line would cross perennial streams six times, cross one pond and one intermittent stream and numerous wet-weather conveyances. No unusual aquatic communities are known from these watercourses. The Loosahatchie River in the vicinity of the proposed action is classified as partially supporting its designated uses due to other habitat alterations from channelization. BMPs 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.

Two historic archaeological sites and 11 historic structures were identified during a survey of the project area. TVA, in consultation with the Tennessee State Historic Preservation Officer, determined that these archaeological sites and historic structures were not eligible for listing in the National Register of Historic Places.

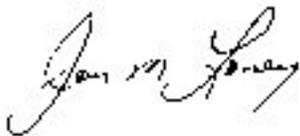
Mitigation

The proposed action contains standard measures including the use of BMPs, the establishment of streamside management zones, and other practices listed in the appendixes of the EA to minimize environmental impacts. No nonroutine mitigation measures are required for this project.

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 BMPs.

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



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