

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
WEST PLEASANT HILL 161-KV TRANSMISSION LINE
DESOTO COUNTY, MISSISSIPPI

The Proposed Action

Tennessee Valley Authority (TVA) proposes to construct a new single-circuit, 161-kilovolt (kV) transmission line tap from the Freeport-Miller 161-kV Transmission Line to Northcentral Mississippi (MS) Electric Power Association's (EPA) planned West Pleasant Hill 161-kV Substation in DeSoto County, Mississippi, by January 2007. The transmission line, 4.2 miles in length, would be built using single-pole steel structures on new right-of-way 100 feet in width and occupy about 50 acres. TVA has prepared an Environmental Assessment (EA) that is incorporated by reference.

Background

The purpose of the proposed action is to serve the planned West Pleasant Hill 161-kV Substation and to provide a stable and reliable supply of electricity to the Northcentral MS EPA service territory in DeSoto County. The rapid growth in the Pleasant Hill area is overloading the existing substation. Planned developments are expected to increase the area power demands, further stressing the reliability and adequacy of the area power supply. The proposed action of providing a 161-kV connection from the planned substation to the TVA transmission system would address the need for a more reliable power supply by providing a second source of power in the area for Northcentral MS EPA.

Alternatives

During the development of the proposed action, TVA considered six alternative routes for the proposed transmission line. These alternative routes run roughly south to north from the existing Freeport-Miller 161-kV Transmission Line to the site of the planned West Pleasant Hill 161-kV 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 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. Approximately 13 acres of forested land along the 4.2-mile transmission line 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 endangered or threatened terrestrial plant or aquatic animal species are known from DeSoto County and no impacts to these species are expected. Although one federally listed

endangered terrestrial animal is known from DeSoto County, none would be affected by the proposed action. Several state-listed terrestrial animals have been reported from the county, and potential habitat along the proposed transmission line was identified for some of these species. No adverse impacts to state-listed terrestrial animals are anticipated.

The proposed transmission line and access roads would cross six separate wetland areas with a total area of about 3.1 acres. These wetlands are comprised of approximately 2.9 acres forested and 0.2 acre emergent and scrub-shrub. The forested wetlands that TVA would clear are considered of moderate quality or degraded but could be restored (Category 2) and would be converted to scrub-shrub. The U.S. Army Corps of Engineers has requested that TVA mitigate for the loss of the forested wetlands at a 2:1 ratio. Mitigation credits of 5.8 acres would be purchased from Greenhead Farms LLC Delta Mitigation Bank in Tallahatchie County, Mississippi. No mitigation is recommended for impacts to scrub-shrub or emergent wetlands, as these areas would be spanned by the proposed transmission line and would not be filled or converted to other wetland types. With mitigation, impacts resulting from the proposed project were determined to be insignificant.

The project area drains to the Camp Creek of the Coldwater River of the Tallahatchie River in the Yazoo River basin. The transmission line would cross seven perennial streams, one pond, three intermittent streams, and five wet-weather conveyances. Aquatic life is supported to varying degrees depending on the type of watercourses in the project area. Camp Creek is on the state 303(d) list for aquatic life support due to biological impairment. Best management practices (BMPs) and other streamside protection measures would be used to help ensure that the impacts of the transmission line construction, operation, and maintenance 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. Impacts to recreation activities, transportation, and visual aesthetics would be insignificant. No parks, managed areas, or ecologically significant sites would be affected.

Three previously unrecorded archaeological sites were identified during a survey of the project area. Due to agricultural disturbances, these sites were considered ineligible for listing on the National Register of Historic Places (NRHP). One previously unrecorded historic property was identified during a survey of the project area. This structure did not exhibit any unique architectural features and could not be associated with any event(s) or person(s) of historic significance. This structure was determined not eligible for listing on the NRHP, and impacts to cultural resources would be insignificant.

Mitigation

The siting process TVA used for the transmission line sought to avoid or limit potential environmental impacts where 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 BMPs and other practices listed in the appendices 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 will be implemented to reduce the environmental impacts that could result from the proposed action:

Protection of Aquatic Resources

- All intermittent and perennial watercourse crossings will be designated as Category A, Standard Stream Protection, as outlined in Muncy (1999).
- Watercourses that convey only surface water during storm events (i.e., wet-weather conveyances or ephemeral streams) and that could be affected by the proposed transmission line route will be protected by standard BMPs. These BMPs are designed to minimize erosion and subsequent sedimentation in streams.

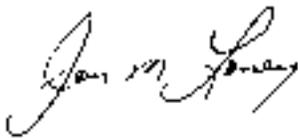
Wetland Mitigation

- To minimize impact to wetlands, BMPs will be implemented during construction and maintenance.
- Compensatory mitigation as requested by the USACE will be implemented for the 2.9 acres of Category 2 moderate-quality forested wetlands that will be converted to scrub-shrub and emergent wetlands. Mitigation credits of 5.8 acres will be purchased from Greenhead Farms LLC Delta Mitigation Bank in Tallahatchie County, Mississippi.

Conclusion and Findings

The Final EA for this proposal concludes that construction and operation of the transmission line will 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. It is also based on the implementation of the mitigation and avoidance measures mentioned above.

Environmental Stewardship and Policy has determined that the preparation of an Environmental Impact Statement is not required.



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Jon M. Loney, Manager
NEPA Policy
Environmental Stewardship and Policy
Tennessee Valley Authority

Date Signed