

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
CALHOUN, GEORGIA – AREA POWER SYSTEM IMPROVEMENTS

The Tennessee Valley Authority (TVA) proposes to improve the existing power supply in the Dalton and Calhoun, Georgia area by constructing, operating, and maintaining a second 19.2-mile, mostly 150-foot wide, transmission line (TL) between TVA’s Center Point and Moss Lake 230-kilovolt (kV) substations, and purchasing a 1.3-mile section of ROW to accommodate a future 230-kV TL. TVA will purchase right-of-way (ROW) easements that provide the necessary rights to construct, operate, and maintain the proposed TL route. The ROW easements TVA proposes to acquire total approximately 317 acres. Additionally, 53 acres of existing ROW will be utilized for the proposed TL.

The potential environmental effects of this proposed action are described in an environmental assessment (EA), which is incorporated by reference.

Alternatives

The subject EA evaluates two alternatives in detail, *i.e.*, the No Action Alternative and the Action Alternative (TVA Provides an Additional Power Supply to the Calhoun and Dalton Area). TVA also considered other alternatives, including alternative TL routes, in identifying its preferred action alternative.

Under the No Action Alternative, TVA would not provide an additional 115-kV power supply to serve the Dalton and Calhoun areas of Gordon and Whitfield counties. TVA would also not purchase additional ROW to accommodate a future 230-kV TL connection to the Center Point Substation.

If the project were cancelled, no direct environmental effects are anticipated, as environmental conditions along the ROW that TVA proposes to acquire would remain essentially unchanged from current conditions. The TVA power system in the Dalton and Calhoun area would continue to operate under the current conditions, increasing the risk for substation and TL overloading, loss of service, and occurrences of violations of North American Electric Reliability Corporation criteria. TVA’s ability to continue to provide a reliable service to address economic development and anticipated residential and commercial growth in the area would not be improved.

Under the Action Alternative, TVA would construct, operate, and maintain approximately 19.2 miles of new TL between North Georgia Electric Membership Corporation’s (NGEMC) Swamp Creek 115-kV Substation, located south of Dalton, and their Fuller Substation, located on the south side of Calhoun. The TL would use about 2.9 miles of existing 150-ft wide ROW near Calhoun. The remaining 16.3 miles would be built on new ROW, approximately 15.6 miles of which would be 150-ft wide. The remaining 0.7 miles of new ROW, located near the Swamp Creek Substation, would be 100-ft wide. The proposed new TL would require the installation of two switch structures - one in the existing Center Point-Swamp Creek 115-kV TL ROW, and one within the proposed new 0.7 mile 100-ft wide ROW. TVA would also purchase 1.3 miles of new 150-ft wide ROW in Carbondale for a future TL connection to the Center Point 230-kV Substation.

Additionally, TVA would install a new transformer in their Moss Lake 230-kV Substation, communications equipment at their Moss Lake and Center Point 230-kV substations, and modify their existing Moss Lake-Fuller 115-kV TL near the substation property. To facilitate the operation of the proposed TL, TVA would modify the TVA system map boards to include the names and numbers of the new TLs.

The EA addresses the construction, operation, and ROW maintenance of the proposed TL.

Impacts Assessment

The EA documents potential effects to the following resources: land use; 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 clearly 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.

Overall, the Action Alternative will have no disproportionate impacts to disadvantaged populations. Providing an additional source of power will 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. Potential effects on traffic will likely be minor and short-term in nature.

Vegetation in the project area is composed of two main types - forested vegetation and herbaceous vegetation. Cropland, mowed lawns, pastures, TL ROW, and recent clear cuts account for nearly all herbaceous vegetation located within the project area. Pasture and other agricultural operations are consistent with TL operations. Most forest in the project area is deciduous in composition. Under the Action Alternative, approximately 121 acres of forested land within the proposed ROW will be cleared. An additional 22 acres will be cleared when the 230-kV TL is built on the section of ROW proposed for purchase only. The construction of the proposed TL will require changes in land use from forest to early successional habitats; however, potential effects to vegetation, local wildlife populations or habitat, or aquatic life will be minor and insignificant. Potential effects from electromagnetic fields will be minor, and the proposed TL will not pose an increased hazard for electric shock or from lightning. Because construction of the proposed TL will take place over a short period, potential effects to local noise and air quality will be minor and insignificant, and the amount of solid waste produced will be minor.

No federally listed plant species occur in the project area. Under the Action Alternative, three state-listed species will be impacted to some extent. Two state-listed plant species (Asa Gray's sedge and dense-flower knotweed) will likely not be significantly affected; however, a population of two individuals of the state-listed Jacob's ladder will likely be impacted since it requires forested conditions for survival and reproduction. In the long-term, the loss of this population of two individuals is not significant since it is not viable and about ten other locations are known

that support a greater number of individual plants. Habitat conditions within the cleared ROW will be conducive for long-term survival of the Asa Gray's sedge and dense-flower knotweed. TVA botanists will coordinate with on-site environmental technicians during construction to minimize potential impacts to these two species.

Two federally and three state-listed terrestrial animal species are known from within three miles of the proposed Action Alternative. No impacts are anticipated to populations of the state-listed peregrine falcon. Suitable habitat for the state-listed common map turtle and Alabama map turtle occurs in two areas along Swamp Creek that would be crossed by the proposed ROW. Through protective measures including the implementation of best management practices (BMP), streamside management zones (SMZ), avoidance of habitat during the nesting season, and restoring any suitable sandy bank habitat, no impacts to these species are expected. Suitable foraging and summer roosting habitat for the two federally listed species, Indiana bat and northern long-eared bat, exist along the proposed ROW. Eleven locations identified during TVA field surveys, totaling 24.98 acres, were determined to be suitable for summer roosting. However, during consultation with TVA, the United States Fish and Wildlife Service (USFWS) determined that 59.8 acres of potential suitable summer roosting habitat for Indiana and northern long-eared bats may be affected by the proposed project. In accordance with the terms of the Endangered Species Act (ESA), a conservation Memorandum of Agreement (MOA) will be established between the USFWS and TVA for the direct loss of 59.8 acres of potential suitable summer roosting habitat for Indiana and northern long-eared bats. TVA will implement the proposed Action Alternative in accordance with the stipulations of the MOA. Any potential indirect and cumulative effects to these species (i.e. removal of forest habitat suitable for use by Indiana or northern long-eared bats) would be appropriately mitigated prior to the start of clearing activities as part of TVA's compliance with ESA in consultation with USFWS.

Fifteen federally and 12 state-listed aquatic animal species are known from the project area. The Oostanaula, Coosawattee, and Conasauga rivers and Holly and Floyd creeks (Unit 25) are listed as federally designated critical habitat (DCH). This DCH unit occurs within the potentially affected watersheds and the proposed 115-kV TL will cross a portion of the Oostanaula River designated as DCH for multiple aquatic species. No impacts to this DCH are anticipated with implementation of SMZs, BMPs, and additional Category B and C stream protection measures. The USFWS has petitioned to federally list the state-listed trispot darter and Coosa creekshell, a species known from the project area. TVA agreed to not remove temporary culverts between November and April, and to remove geotextile fabric at the same time as the removal of the culverts from 14 SMZs as additional protection measures for this species. TVA surveyed SMZs 008-012, 27, 038, and the ford footprint of SMZ 052 in March 2016 for the presence or likely presence of the federally listed fined-lined pocketbook, southern pigtoe, and southern clubshell. The mussel survey documented no federally listed species. However, the Coosa creekshell was collected in low abundance in two of the streams sampled. ROW access roads will be sited to avoid crossing these two streams thereby avoiding any effects to the species. TVA has determined that no streams to be crossed by ROW access roads contain either species petitioned for listing or federally listed aquatic species.

Consultation will be completed prior to any clearing or construction along the proposed ROW. No ground disturbing activities will occur along this proposed ROW until TVA has fulfilled its obligations under Section 7 of the Endangered Species Act.

With the use of appropriate BMPs, potential effects to surface water and groundwater will be minor and insignificant. The proposed TL will cross floodplain areas of several streams. Consistent with EO 11988 (Protection of Floodplains), overhead TLs and related support

structures are considered to be repetitive actions in the 100-year floodplain. Portions of some access roads will be located within 100-year floodplains. To minimize adverse impacts, any road improvements will be done in such a manner that upstream flood elevations will not be increased. The proposed transformer and communications equipment will be located outside the 100-year floodplain. As such, construction, operation, and maintenance of the proposed TL will have no significant impact on floodplains.

In compliance with EO 11990 (Protection of Wetlands), TVA has determined that there is no practicable alternative route that would completely avoid all wetland impacts. A total of 22.94 acres of wetlands will be spanned by the proposed TL. Of this, 14.36 acres are currently forested wetlands requiring clearing within the ROW and habitat conversion to emergent and scrub-shrub wetlands. To compensate for reduced wetland functions, TVA will purchase compensatory mitigation credits, in compliance with current standards and guidelines and with USACE approval, through Georgia's In-Lieu-Fee program. TVA has considered all means to avoid wetlands where practicable and to minimize impacts to wetlands where routing through a wetland will be unavoidable, resulting in the least wetland disturbance. TVA's proposed action is consistent with the requirements of EO 11990.

TVA, in consultation with the Georgia State Historic Preservation Office (SHPO) and 14 federally recognized tribes, determined that the APE contains 20 archaeological sites of "undetermined" eligibility as well as IS-22 (9GO399), the Dickey Cemetery, also considered of "undetermined" eligibility. These sites may contain data that would be important in prehistory or history. Five of the "undetermined" sites are located in areas where the proposed TL structures would be erected. TVA has elected to perform Phase II testing to fully determine NRHP eligibility on these five sites. The remainder of the "undetermined" sites are located within the proposed ROW, where impacts would be limited to possible ground disturbance resulting from TL maintenance activities and ROW maintenance. TVA will implement precautionary avoidance measures and BMPs to avoid impacting these sites. Additionally, TVA and the Georgia SHPO agreed to execute a Programmatic Agreement (PA) for the proposed undertaking. The PA will outline the procedures and processes that TVA will follow in order to meet TVA's NHPA section 106 obligations for the undertaking. The PA will stipulate that, if any of the tested archaeological sites are eligible for the NRHP, TVA will consult further with SHPO to reach agreement on avoidance, minimization, and/or mitigation measures for any NRHP-eligible archaeological sites where the undertaking could potentially result in adverse effects. These measures will be stipulated by a Memorandum of Agreement (MOA) between TVA and SHPO. The MOA will commit TVA to the avoidance and/or minimization and/or mitigation measures for the NRHP-eligible resources where potential adverse effects could occur. TVA and the SHPO agreed on March 31, 2016 that TVA could avoid effects to archaeological and historic resources with avoidance measures. Seven NRHP-eligible above-ground resources would be indirectly affected by the undertaking, but the effects would not be adverse. TVA continues to consult with SHPO on this finding. Should SHPO find that the project has the potential to adversely affect any of these seven properties, TVA and SHPO will execute an MOA that will stipulate TVA's avoidance, minimization, or mitigation measures for the resource in question. The PA, when signed by TVA and SHPO, will govern the evaluation and resolution of adverse effects as project designs are developed, as provided for under 36 CFR §800.14(b)(3). With this agreement in place, any potential adverse effects to historic properties in the APE will be resolved prior to TVA's initiation of clearing or construction activities near any archaeological site of undetermined eligibility.

Most changes in local visual character will occur during TL construction. Overall visual impacts are anticipated to be minimal. Construction, operation, and maintenance of the proposed TL

could cause minor shifts in local informal recreation. No significant impacts on public use to the Oostanaula River access facility are expected to occur due to the distance to the proposed TL. The proposed TL will border the easternmost property boundary of a portion of the Chattahoochee National Forest and Johns Mountain Wildlife Management Area resulting in a minor visual affect. The Resaca Battlefield State Historic Site will not be impacted as it is at a sufficient distance from the proposed TL.

Public and Intergovernmental Review

TVA developed a public communication plan that included a website with information about the project, a map of the alternative TL routes, and feedback mechanisms. Due to the large number of alternative routes and property owners potentially affected by the proposed project, TVA held two open houses in Georgia. Public officials were briefed on the project. Potentially affected property owners, along with 13 public officials, were invited to attend the project open houses. TVA used local news outlets and placed notices in the local newspapers to notify other interested members of the public of the open houses.

At the open houses, TVA presented a network of alternative TL routes comprised of 38 different line segments to the public. A 30-day public review and comment period was held following the open houses, and TVA accepted public comments on the proposed action.

TVA coordinated the EA with the USFWS, U. S. Army Corps of Engineers, and other entities identified in Chapter 6 of the EA. Additionally, the National Historic Preservation Act Section 106 review for impacts to historic properties was coordinated with the Georgia Historical Preservation Division and the 14 federally recognized Native American tribes with an interest in the proposed project.

Mitigation

TVA will implement, or require adherence to, the routine measures listed in the EA during the construction, operation, and maintenance of the proposed TL and associated access roads. In addition, the following nonroutine measures will be applied during construction and operation of the proposed TL to reduce the potential for adverse environmental effects.

- To compensate for the reduction of wetland functions resulting from the conversion of 14.36 acres of forested wetlands to scrub-shrub or emergent habitat, TVA will purchase mitigation credits, in compliance with current standards and guidelines and with USACE approval, through Georgia's In-Lieu-Fee program.
- To minimize impacts to state-listed plants Asa Gray's sedge and dense-flower knotweed, on-site environmental technicians and TVA Biological Permitting and Compliance botanists will coordinate before ROW clearing to determine access routes through sensitive areas.
- In accordance with the terms of the ESA, a conservation memorandum of understanding (MOU) will be established between the USFWS and TVA prior to TVA commencing ROW clearing activities. The MOU will address the direct loss of 59.8 acres of potential suitable summer roosting habitat for Indiana and northern long-eared bats. TVA will implement the proposed Action Alternative in accordance with the stipulations of the MOU, including the following measures:

1. Any potentially suitable Indiana and northern long-eared bat roosting habitat will be selectively removed between the dates of October 15, 2016 and March 31, 2017.
 2. TVA will contribute to 'The Conservation Fund' to promote the conservation and recovery of Indiana bat.
- To avoid and minimize potential impacts for the common map turtle and the Alabama map turtle in and around Swamp Creek, TVA will implement the following measures:
 1. Within the two areas of suitable turtle habitat, project-related activities that may impact nesting grounds (including driving) will be limited to September through April to avoid any direct impacts to turtle nests.
 2. BMPs and SMZs, as outlined in Muncy (2012), will be followed in delineated wetlands and along streams to avoid impacts to water quality in these two areas.
 3. Any gravel or other substrate material added on top of the sand within the areas of suitable habitat, will be removed upon completion of the project to avoid permanently altering nesting habitat.
 - To prevent potential impacts to the trispot darter during its spawning season, TVA will implement the following protective measures at fourteen designated SMZ crossings:
 1. Temporary culverts will not be placed or removed between November and April.
 2. Any geotextile fabric placed will be removed along with the culverts.
 - TVA will enter into a Programmatic Agreement (PA) with the Georgia SHPO. TVA will follow the stipulations of that agreement such that any potential adverse effects to archaeological resources or historic properties in the APE will be resolved prior to TVA's initiation of clearing or construction activities near any archaeological site of "undetermined" eligibility.
 - TVA will perform additional identification efforts (Phase II testing) to fully determine the NRHP eligibility of five archaeological sites of undetermined eligibility where adverse effects cannot be avoided. If any of the tested archaeological sites are eligible for the NRHP, TVA will consult further with SHPO to reach agreement on avoidance, minimization, and/or mitigation measures for any NRHP-eligible archaeological sites where the undertaking could potentially result in adverse effects. These measures will be stipulated by a Memorandum of Agreement (MOA) between TVA and SHPO. The MOA will commit TVA to the avoidance and/or minimization and/or mitigation measures for the historic properties where potential adverse effects could occur. The MOA will be signed by TVA and SHPO prior to TVA commencing construction or clearing activities near any archaeological site determined via Phase II testing to be eligible for the NRHP.
 - TVA proposes to avoid project effects to 15 archaeological sites of "undetermined" eligibility, by implementing the following measures and any other measures stipulated in the MOA between TVA and the Georgia SHPO:
 1. No TL structures or guy wires will be installed in the archaeological site boundaries.

2. Access across the site boundaries will be avoided where practical.
 3. BMPs implementing for access and clearing.
- To avoid effects to the Dickey Cemetery, TVA will adhere to the following avoidance measures:
 1. A 30-foot wide buffer will be placed surrounding the cemetery wall and fence. No construction related to this undertaking will take place within the buffer. TVA will not disturb the cemetery including the fence and wall.
 2. Any required vegetation clearing within the Dickey cemetery buffer will be accomplished either by hand or by using a feller-buncher or other low ground-pressure equipment.
 3. No heavy equipment will be used inside the cemetery boundary.

These mitigation measures are described in more detail in the EA, in Section 2.6 and Chapter 4.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that TVA's proposed action would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required. This finding of no significant impact is contingent upon adherence to the mitigation measures described above.



April 26, 2016

Amy B. Henry, Manager
NEPA Programs and Valley Projects
Environment
Tennessee Valley Authority

Date Signed