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FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

FISCAL YEAR 2021 TRANSMISSION SYSTEM VEGETATION MANAGEMENT

The Tennessee Valley Authority (TVA) proposes to manage the vegetation within its active transmission right-of-way (ROW) to assure the safe and reliable operation of its transmission facilities. TVA proposes to target previously cleared or maintained ROW areas along approximately one-third of the transmission system in TVA's twelve managed ROW sectors in its power service area. Routine assessment methods were evaluated in a programmatic Environmental Impact Statement (PEIS) released in 2019.

Current plans are to follow vegetation management methods as prescribed by a July 31, 2017 court injunction order currently in place in the *Sherwood v. TVA* litigation. TVA will continue to maintain the buffer zones on the edges of its ROW in a manner as described in its 1997 and 2008 Line Maintenance Manuals (TVA 1997; TVA 2008) and tree work will be limited to trees that present an immediate hazard to the reliability of the transmission system.

The proposed action is the subject of an environmental assessment (EA) prepared by TVA. The EA is incorporated by reference. The EA tiers from the PEIS and incorporates by reference information from the body of related TVA environmental reviews listed therein.

Alternatives

Two alternatives are addressed in this EA. Under the No Action Alternative (Alternative A), TVA would not implement the proposed action. The Action Alternative (Alternative B) involves implementing routine vegetation management within approximately one-third of its transmission system ROWs in each of the twelve managed sectors in TVA's power service area.

Under the No Action Alternative (Alternative A), TVA would not implement routine vegetation management on ROWs within the TVA power service area. As a result, the existing ROW would continue to contain vegetation incompatible with TVA's transmission system. The volume of non-compatible woody vegetation would also increase within the previously-cleared ROWs due to the court injunction order. TVA's ability to provide reliable service within the TVA Power Service Area would be jeopardized, which would not support TVA's overall mission.

The No Action Alternative does not adequately address the potential for service outages from trees growing into the line, falling into the line, or creating a fire hazard to the transmission lines and structures, and thereby creates an increased risk to reliability. The No Action Alternative also does not adequately address the risk to public safety that can stem from wildfires caused by power lines. In addition, the No Action Alternative would lead to a marked increase in worker safety concerns, due to the increased risk of serious injuries and fatalities associated with the increased need to undertake manual removal of large danger trees.

Consequently, TVA has determined the No Action Alternative is not considered a viable or reasonable vegetation management alternative

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Under the Action Alternative, TVA's Preferred Alternative, TVA would use an Integrated Vegetation Management (IVM) approach to perform vegetation management on approximately one-third of TVA's transmission system ROWs. IVM would be utilized to promote the establishment of a plant community "end-state" dominated by low-growing herbaceous and shrub-scrub species that do not interfere with the safe and reliable operation of the transmission system. The goal of this vegetation management alternative would be to allow compatible vegetation to establish and propagate to reduce the presence of woody species.

TVA would predominantly use herbicides during routine floor vegetation maintenance and a mix of manual and mechanical methods to remove trees. Noxious or invasive plant species would predominantly be controlled by a mix of methods dominated by mechanical techniques and herbicide application. By comparison, tall growing incompatible trees and shrubs typically would be controlled using a more balanced application of all techniques (manual, mechanical, and herbicide).

Under the Action Alternative, compatible trees and shrubs would be allowed in areas maintained actively by others (such as residential lands, orchards, forest plantations, agricultural lands or other similar areas). Where terrain conditions provide for higher clearances (i.e., ravines, steep slopes etc.), vegetation may not conflict with the safe and reliable operation of the transmission lines, and thus would not need to be removed.

Impacts Assessment

The EA documents potential effects to the following resources: aquatic life; vegetation; wildlife; endangered and threatened species (aquatic animals, terrestrial animals, and plants) and their critical habitats; water quality (surface waters); wetlands; and managed and natural areas, parks and recreation; archaeological and historic resources.

Tree clearing along the ROW margins will result in a negligible overall change to plant habitats present on the landscape. Localized applications of herbicide will result in some level of off-target impact. In situations where the woody stem count is high on a given ROW, even localized application of herbicides could produce substantial impacts to non-target species. However, these areas of high woody stem count would be unlikely to support high-quality herbaceous habitats. In drier transmission line ROW areas with rocky or sandy soils, localized herbicide application could foster herbaceous plant communities that are rare on the landscape.

Each method of vegetation control has the potential to impact wildlife species and their habitats. Manual control methods typically have a greater potential for disturbance than herbicide applications. Mowing, chainsaws, soil/ground disturbance due to machinery and heavy equipment could directly impact species. Increased levels of noise could also stress nearby individuals. Ground disturbance resulting in sedimentation or contamination could impact sensitive cave systems deep underground. Herbicide application will be applied to woody species leaving ground cover available for wildlife and thus minimizing erosion, sedimentation, and potential damage to nesting and tunneling wildlife. All herbicides currently used by TVA have been determined to be practically non-toxic to slightly toxic to mammals, birds and terrestrial invertebrates (bees) with the exception of Tebuthiuron which was determined to be moderately toxic to mammals.

Because appropriate best management practices (BMPs) will be implemented during floor-work and hazard/danger tree vegetation management on transmission line ROWs, and proper implementation and application of herbicides will be used, any potential effects would be insignificant to surface water quality, aquatic life, managed and natural areas, parks and

recreation. Additionally, TVA will use of the Office-Level Sensitive Area Review (O-SAR) process to identify sensitive areas and modify actions to minimize the potential for impacts (seasonal restrictions, restricted activities) to important plant and animals and their habitats. As such, the proposed vegetation management activities would not have significant impacts on terrestrial plant or animal ecology of the region. TVA will coordinated activities with appropriate land management personnel, as appropriate.

Review of the TVA Regional Natural Heritage database indicated there are records of 15 federally and 108 state-listed species known from within 50 feet of the ROWs where vegetation management is proposed in FY21. Review of the the USFWS Information for Planning and Consultation (IPaC) database system indicated seven additional federally listed terrestrial animal species have the potential to be impacted by the proposed actions. Finally the federally listed whooping crane has been documented foraging in agricultural fields that intersect TVA ROW on Wheeler National refuge in the Madison Sector. TVA consulted with the USFWS as part of the PEIS to assess the impacts of routine activities associated with TVA's transmission ROW vegetation management program on all species listed under the ESA (other than the four federally listed bat species addressed in a separate programmatic consultation) with potential to occur in the TVA power service area. This consultation was completed and the USFWS issued a Biological Opinion in May 2019 concurring with TVA's effects determinations. BMPs and conservation measures developed in conjunction with this consultation to avoid and minimize effects to sensitive species will be integrated into TVA's transmission ROW vegetation management procedures.

As part of the consultation, TVA concluded, and the USFWS concurred, that the ROW Vegetation Management program is likely to adversely affect the four federally listed plant species. However, while the program may affect individual plants from time to time, TVA does not anticipate that vegetation management activities would extirpate any populations from the ROW. In fact, conditions found in the ROW where these four species occur are favorable for the plants; no suitable off ROW habitat occurs adjacent to leafy prairie-clover, Mohr's Barbara's buttons, and white fringeless orchid that would intersect planned FY21 vegetation management work. TVA ROW vegetation management proposed for FY21, would result in insignificant short-term impacts to individual federally and state-listed plants as well as long-term beneficial impacts to populations of those same species. Additionally, the USFWS consultation resulted in a may affect, but not likely to adversely affect determination for all federally listed terrestrial animal species (excluding bats and bog turtle). TVA consulted separately for the four federally listed bat species which are addressed in a programmatic consultation. TVA determined that none of the activities associated with ROW vegetation management have the potential to adversely affect gray bat or Virginia big-eared bat. Transmission ROW maintenance activities (primarily tree removal), were determined to be likely adversely affect Indiana bat and northern long-eared bat. The USFWS issued a Biological Opinion in April 2018, concurring with TVA's effects determinations and issued an Incidental Take Statement that authorizes TVA's ROW vegetation management practices over a 20-year term. Species- and/or group-specific (e.g. SMZs) restrictions and guidance have been developed for all federally listed and most state-listed resources in the study area. Therefore, no impacts are anticipated to aquatic animal species from the proposed FY21 work.

Migratory bird species have the potential to be impacted. While the USFWS IPaC database identified 37 species as having the potential to occur in the action area, over a third of those species are only likely to be found in the action area during migration. Proposed actions are not expected to significantly impact populations of migratory birds.

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A total of 7,478 acres of potential wetland area have been identified within the ROW sectors proposed for vegetation management. Mechanical mowing in wetlands may only be conducted under dry conditions, such as the dry-season during which time soil saturation would be reduced. Spot spray herbicide, localized herbicide, and broadcast herbicide, aerial herbicide application methods may be selected depending on the management needs. There is potential for herbicide application to affect wetlands not identified during the O-SAR process or apparent to ROW management crews. However, only aquatic approved herbicide would be permissible near water features. Consideration of site specific characteristics would ensure potential herbicide runoff, leaching, or drift is contained when applied in or near a wetland. With these measures and the implementation of standard wetland BMPs within locations where mapped NWI and O-SAR wetlands are present and vegetation management activities are necessary, no significant wetland impacts are anticipated.

A range of cultural resources have the potential to be present within the ROW including prehistoric Native American archaeological sites, historic era archaeological sites, and Traditional Cultural Properties including intact original Unicoi Turnpike/Trail of Tears segments. Only portions of the ROWs subject to this EA have undergone systematic Phase I archaeological surveys since the mid-1990s in association with compliance with Section 106. Much of the survey work was conducted during the planning stages and prior to new construction of the transmission lines. As a result, numerous archaeological sites within the transmission ROWs have been identified and evaluated with respect to their eligibility status for listing on the National Register of Historic Places. The majority of vegetation management activities proposed within the TVA transmission ROWs have little to no potential to affect cultural resources. Activities with the potential to cause soil disturbance can disturb sub-surface cultural deposits related to both prehistoric and historic era archaeological sites. However, this potential effect would be low as activities are focused on maintaining vegetation within an established transmission line ROW. The use of spot or localized herbicides as a method to control vegetation within the study area, would not adversely affect cultural resources. However, broadcast and aerial spray, which is rarely used, have the potential to affect culturally significant and traditionally used native plants should they be present. Methods involving manual vegetation activities include the use of hand tools for either pulling or cutting vegetation and have a low potential for disturbance of subsurface cultural resources given that vegetation would be cut and not actually removed from the soil. The use of machinery within the transmission line ROW has the potential to disturb sensitive above-ground historic resources, if present. TVA executed a PA with the Advisory Council on Historic Preservation, seven SHPOs and all federally recognized Indian tribes with an interest in the region. The PA establishes a program alternative for compliance with the Section 106 of NHPA that would allow compliance to be achieved more efficiently through consultation at the programmatic level. The PA set forth procedures and criteria for an alternative process for all existing TVA operation and maintenance activities that are similar and repetitive in nature. The majority of the activities associated with transmission ROW vegetation management are covered within this PA.

Public Review

The FY21 Transmission System Vegetation Management draft EA was released for a 14-day public comment period on August 28, 2020. The availability of the Draft EA was announced through area media outlets and the draft EA was posted on TVA's website. Comments received on the draft have been addressed in the final EA.

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:

- Cave - 200 feet - No herbicide use within 200 feet of cave due to potentially sensitive subterranean aquatic resource. Hand clearing or small machinery clearing only (i.e.: chainsaws, brush hog, mowers). Vehicles and equipment confined to existing access roads. Avoid entering cave.
- Osprey nest - 660 feet - Either 1) Assume presence. No broadcast spraying. Only use brush hogs or mowers for vegetation removal or selective herbicide spraying between March 1 and July 31 within 660 feet of nest site; OR 2) Request seasonal field survey to determine if nest is active.
- Heronry - 660 feet - Either 1) Assume presence. No broadcast spraying. Only use brush hogs or mowers for vegetation removal or selective herbicide spraying between February 1 and July 15 within 660 feet of nest site; OR 2) Request seasonal field survey to determine if nests are active.
- Bald Eagle nest - 660 feet - Either 1) Assume presence. No disturbance, spraying, or vegetation clearing would occur between December 1 and July 1 within 660 feet of nest site; OR 2) Request seasonal field survey to determine if nest is active.
- To avoid potential impacts to northern long-eared bats associated with an electrical pole located in the Cleveland Sector and identified in the O-SAR database, no tree removal or mowing would be permitted within 150 feet of the electrical pole outside of winter months. Only a conservation spray type of herbicide application may occur within 150 feet of the pole during June and July when pups could be present.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that the proposed action of implementing vegetation management within approximately one-third of the transmission system ROWs within each of the twelve managed sectors in the TVA power service area 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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Date Signed

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