

**FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
SHORTLEAF PINE INITIATIVE**

Lauderdale County, Alabama, and Hardin County, Tennessee

Shortleaf pine (*Pinus echinata*) has the largest natural range of any pine species in the Eastern United States (US), but it faces a variety of threats which have caused a decades-long decline. In 1990, the shortleaf pine range was estimated to cover 22 states encompassing 440,000 square miles and was present in a variety of habitats ranging from rocky uplands to wet floodplains. Over the last 30 years, however, approximately 50 percent of the shortleaf pine ecosystems have been lost due to altered fire regimes, changes in forest management practices, and disease.

To protect and enhance unique and important shortleaf pine habitat, the Tennessee Valley Authority (TVA) proposes to authorize and provide funding and support for the Alabama Department of Conservation and Natural Resources (ADCNR) to perform and manage the restoration and reestablishment activities for the shortleaf pine ecosystem on 4,648 acres of TVA lands within the Lauderdale Wildlife Management Area (WMA). Additionally, TVA would conduct the management activities on an adjacent 1,363-acre TVA parcel in Hardin County, Tennessee. Work would begin on a 285-acre parcel within the Lauderdale WMA.

The Proposed Action is the subject of a Programmatic Environmental Assessment (PEA) prepared by TVA, which is incorporated herein by reference. In the PEA, TVA evaluated the potential impacts of an Action Alternative as well as the alternative of not implementing the action (i.e., the No Action Alternative). The analysis of the 6,011-acre project area is programmatic in nature; the PEA also includes a site-specific review of restoration activities on the 285-acre parcel where work would begin.

Under the No Action Alternative, TVA would not provide funding or support for the enhancement of shortleaf pine habitats in the 4,648 acres of TVA-owned lands in the Lauderdale WMA or the 1,363-acre parcel of TVA-owned land in Hardin County, Tennessee. The existing shortleaf pine habitat would continue to degrade.

Under the Action Alternative, TVA would allow and provide funding and support to ADCNR for the enhancement and restoration of shortleaf pine habitats within the Lauderdale WMA, and conduct management activities on the 1,363-acre TVA parcel in Hardin County, Tennessee. Some of these activities include prescribed burns to remove fire-intolerant species, herbicide applications to remove undesirable species, light grading and earthwork, and other silviculture practices. The appropriate activities for each specific treatment location will be determined based on the best available information and a site-specific environmental review.

TVA has determined that there will be negligible impacts on climate change under the Action Alternative. Minor, temporary or short-term adverse impacts are expected under the Action Alternative for air quality, aquatic ecology, vegetation, wildlife, floodplains, managed and natural areas, parks and recreation, public health and safety, noise, soil erosion and surface water, and

transportation. There will be minor, indirect adverse effects on wetlands. Over the long term, there will be beneficial impacts on managed and natural areas, parks and recreation, aquatic ecology, vegetation, and wildlife.

Impacts to state and federally listed bats are possible under the Action Alternative due to the potential removal of suitable roosting trees and prescribed burning. Impacts to federally listed bats were addressed in TVA's programmatic consultation with USFWS. Appropriate conservation measures would be applied in accordance with TVA's Bat Strategy. Additional best management practices (BMPs) would be applied to protect bats during forestry operations. With the implementation of conservation measures, impacts are not expected to be significant.

In response to the results of the initial 285-acre Phase I survey, TVA modified the project area so that it excluded the 12 potentially eligible sites, the proposed Hitchcock Hollow Archaeological District (HHAD), and a 20-meter buffer area surrounding the sites and the proposed district. TVA consulted with the Alabama State Historic Preservation Office (SHPO) office in a letter dated January 23, 2019 regarding the findings of the Office of Archaeological Research (OAR) survey and outlining TVA's plans to modify the project area to exclude the potentially eligible sites, the proposed district, and the 20-meter buffer area. With the revised Area of Potential Effects (APE), TVA determined that the proposed undertaking would have no effects to historic properties. In a letter dated February 4, 2019, the Alabama SHPO concurred with TVA's finding of no effect. Pursuant to 36 CFR § 800.3(f)(2), in letters dated January 23, 2019, TVA consulted with federally recognized Indian tribes regarding historic properties within the APE that may be of religious and cultural significance and are eligible for the National Register of Historic Places (NRHP). TVA received responses from Cherokee Nation, the Chickasaw Nation, the Muscogee (Creek) Nation, the Shawnee Tribe, and the United Keetoowah Band of Cherokee Indians of Oklahoma. None objected to the project.

During the preparation of this PEA, TVA consulted with the following federal and state agencies: the Alabama Historical Commission, ADCNR, Tennessee Department of Environment and Conservation, Tennessee Historical Commission, Tennessee Wildlife Resources Agency, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service. The draft PEA was made publicly available for review on May 13 through June 12, and six submissions were received from federal and state agencies during the 30-day comment period. Comments received on the draft PEA have been addressed in the Final PEA, which will be made available to the public.

Mitigation

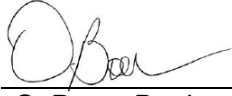
TVA would utilize the following standard operating procedures, BMPs, and mitigation measures in order to avoid, minimize, or mitigate potential adverse impacts on the environment from the proposed action. In addition, TVA would acquire any applicable permits as identified in Section 1.7 of the PEA; therefore, the implementation and adherence to all associated permit-related mitigation measures and BMPs would also be followed to further minimize environmental impacts.

- Erosion controls and other BMPs to reduce stormwater runoff would be implemented in accordance with a Stormwater Pollution Prevention Plan (SWPPP) developed in coordination with ADCNR and TDEC. All erosion and sediment controls would be installed, placed, implemented, or constructed in accordance with the provisions of the State of Alabama and Tennessee.

- Spills of oils, fuels, or other potentially hazardous materials would be addressed immediately and BMPs such as secondary containment and spill kits maintained onsite during restoration activities would be used to assure that hazardous substances would not be released to the environment. Activities in Tennessee would be managed in accordance with the Solid and Hazardous Waste Rules and Regulation of the State of Tennessee (TDEC DSWM Rule 0400 Chapters 11 and 12, respectively).
- All prescribed burns will follow measures outlined in burn plans that set forth the details/critical elements for conducting a particular burn treatment for individual parcels (e.g., weather conditions under which the burn will be conducted, number of personnel and duties of each, ignition plan, and the type, amount, and placement of equipment to safely conduct the burn, and escaped fire plan). TVA will coordinate with the appropriate government agencies responsible for burning regulations in Hardin and Lauderdale counties.
- To assist with prescribed burns, VSmoke-GIS will be used to estimate downwind emissions concentrations and visibility.
- Project-related vehicles would comply with applicable local regulations to minimize the spread of loose soil and mud onto the local roadways.
- To comply with Executive Order (EO) 13112 (Invasive Species), disturbed areas would be revegetated with native species to avoid the introduction or spread of invasive species.
- Any needed fill material would be clean and free of contaminants.
- Herbicide application would not be applied near streams; any herbicides applied near stream features would have to be approved for aquatic use and would be used according to label instructions.
- Any improvements in the non-floodway portion of the floodplain (floodway fringe) would be done in such a manner that upstream flood elevations would not be increased by more than 1.0 foot.
- When they become available, Flood Risk would review plans for restoration activities, including grading, earthwork, and access roads for potential loss of flood and power storage.
- A minimum 20-meter buffer would be used to avoid all potentially eligible archeological sites.
- Prior to any work on the property, TVA Cultural Compliance staff will cordon off any NRHP eligible or potentially eligible sites with safety fencing and/or flagging tape to ensure that the sites are avoided.
- TVA Forestry Best Management Practices for Lauderdale WMA
- Conservation measures identified in the TVA Bat Strategy Project Screening Form

Conclusion and Findings

Based on the findings listed above and the analyses in the PEA, we conclude that the proposed action of the restoration and enhancement of shortleaf pine habitat within the 6,011-acre project area, including the 285-acre parcel where work would begin, 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 permit conditions and mitigation measures described above.



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Date Signed