

FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
MUSCLE SHOALS RESERVATION POND CREEK LEVEE

In 1973, the Tennessee Valley Authority (TVA) executed an agreement with the City of Muscle Shoals to maintain the Pond Creek levee located in the southeast corner of the Muscle Shoals Reservation (MSR) in Colbert County, Alabama. The levee consists of 2,400 linear feet of constructed earthen embankment and 3,200 linear feet of an abandoned railroad track embankment. Recent research for the future sale of a portion of the MSR indicated that the levee is in poor condition and is in need of repair to function as intended. Because of environmental concerns associated with restoring the existing levee, TVA is proposing to construct a new levee 75 to 150 feet south of the existing Pond Creek Levee on the MSR. TVA is also proposing to reduce flooding upstream of Roosevelt Drive by removing three upstream structures (i.e., culverts). If needed, TVA would provide sufficient land rights on the MSR (i.e., permanent easement) to the city of Muscle Shoals to facilitate its maintenance of the new levee. The proposed levee is necessary to fulfill TVA's commitments in the 1973 agreement with the City of Muscle Shoals. The proposed actions would meet the Federal Emergency Management Agency requirements for the 100-year flood event.

The proposal is the subject of an EA prepared by TVA. In the EA, TVA addressed potential impacts of the proposed project as well as the alternative of not implementing the action (i.e., taking no action). Under the No Action Alternative, TVA would not construct a new Pond Creek levee. TVA would also not remove three culverts along Pond Creek to improve flooding upstream or use excavated material from the relocation project. The existing Pond Creek levee would remain as is. The current flooding that occurs upstream of Roosevelt Drive would also continue.

Under the Proposed Action Alternative, TVA would construct a new levee 75 to 150 feet south of the existing levee using excavated soil from the Pond Creek Relocation project. The new levee would have a 10-foot wide crest with side slopes having a 2:1 (horizontal to vertical) ratio. The levee height varies with a maximum height of approximately 10 feet. TVA would accommodate drainage through the existing levee and railroad embankment by installing a through-drainage system using pipes and one-way check valves. TVA would also breach the existing levee in several locations to prevent water from collecting between the existing levee and the proposed levee. The area of disturbance would be approximately 11.5 acres. TVA would remove obstructions, trees, shrubs, and other woody vegetation within the area of disturbance. A vegetative cover using noninvasive, native species would be placed on the newly constructed levee for erosion and sediment control. The new levee would be constructed to meet FEMA requirements for certified levees. TVA would also contact the local floodplain administrator to determine the actions necessary to ensure compliance with local floodplain regulations.

TVA would also remove and demolish three culverts downstream of the new levee. The removal of culverts would require excavation within Pond Creek and the placement of rip-rap of 2:1 side slopes to stabilize the area. TVA is also proposing to place the excavated soil from the Pond Creek Relocation project not used for construction of the levee in two stockpile locations on the MSR. TVA would stabilize the stockpiles and use proper BMPs for erosion and sediment control.

In the EA, TVA identified relevant environmental issues and reviewed the potential impacts of implementing the project to the following resources: surface water; floodplains; aquatic ecology; terrestrial ecology (vegetation and wildlife); threatened and endangered species; cultural resources. TVA also considered potential effects related to socioeconomics and environmental justice; health and safety; natural areas, solid and hazardous waste; recreation; air quality; visual resources; geology and soils; navigation; groundwater; noise; transportation; and global climate change. In its review, TVA identified no adverse or potentially significant impacts that would result from the implementation of the Proposed Action Alternative. The EA addresses the beneficial floodplain impacts of constructing a new levee and removing three culverts on Pond Creek. The EA is specifically incorporated herein by reference.

Mitigation

No mitigation measures were identified for the implementation of the Proposed Action Alternative.

Conclusion and Findings

Based on the findings listed above and the analyses in the EA, we conclude that the proposed actions of constructing a new levee, removal of three culverts, and placement of soil in stockpiles on the MSR, would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed