

## FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

### WATTS BAR RESERVOIR TRACT WBR-82 (IRON HILL ISLAND) BANK STABILIZATION PROJECT

TVA is responsible for the management of public shoreline on Watts Bar Reservoir and for the protection of shoreline and aquatic resources, while providing reasonable public access. TVA is proposing to place rock riprap along 490 feet of shoreline at Iron Hill Island (Tract WBR-82) located on Watts Bar Reservoir, Tennessee River mile 539 (right bank) in Rhea County, Tennessee. The proposed riprap replacement is intended to minimize the destabilization and erosion of the shoreline and banks of the island and the resultant turbidity and sedimentation of reservoir waters. Erosion of the shoreline is increasing, primarily due to the increasing presence of boats producing higher wakes on the reservoir. The proposal supports and is consistent with TVA's mission of environmental stewardship, the objectives for water resource management in the 2011 Natural Resources Plan (NRP) and TVA's management goals set forth in the 2009 Watts Bar Reservoir Land Management Plan (RLMP).

The proposal is the subject of an environmental assessment (EA) prepared by TVA, which is incorporated herein by reference. 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). Implementation of the No Action Alternative would not address the shoreline erosion issues nor would it help TVA achieve its goals and objectives for managing the public shoreline. TVA also considered other stabilization methods (e.g., vegetation and bioengineering), but dismissed them from further consideration because the success of those methods in addressing critical erosion of such high banks is limited.

Under the Action Alternative, TVA would stabilize 490 feet of the shoreline of Iron Hill Island with rock riprap. Delivery and placement of the riprap would be by barge. The shoreline has nearly vertical cutbanks ranging from 5 to 30 feet in height below the shoreline and a moderate to steep hillside slope above the shoreline. The banks of the island are covered with limited grass, forbs, and brush vegetation. Rock riprap of sufficient size (generally 15 to 20 inches in diameter) to prevent washout would be placed on the shoreline such that the bottom of the riprap would be 2 feet below and the top would be 3 feet above the normal summer operating level (contour elevation 741-foot mean sea level). Where needed, the bank would be graded to produce a gentler slope. A filter fabric would be laid under the entire length of riprap and anchored to the ground; anchors would be placed slightly above the riprap on the bank. In the future, the riprap installation may periodically require routine, minor maintenance.

TVA has reviewed the proposed project and documented potential environmental impacts related to the project in a categorical exclusion checklist. The proposed action would have no effect to endangered, threatened, or special status plant, aquatic, or wildlife species, wetlands, natural areas, visual resources, or navigation.

The proposed bank stabilization would require the removal of trees. There is no suitable habitat for the endangered Indiana bat (*Myotis sodalis*) or northern long-eared bat (*Myotis septentrionalis*) located within the project area. Therefore, there would be no adverse impacts to federally listed species. In addition, according to the TVA Natural Heritage database, no sensitive aquatic or terrestrial wildlife habitats occur adjacent to or within the project area.

A review of the National Register of Historic Places and the Tennessee Historical Commission viewer indicated that no historic properties exist within the project area or within its viewshed. In 2000, TVA performed an archaeological survey of the project area. The exposed shoreline was subjected to a walkover survey and no cultural deposits or artifacts were identified. Therefore, the proposed action would have no effect to historic properties.

The 100-year floodplain may be affected, although the stabilization structure falls under the guidelines of TVA's class review of repetitive actions within the 100-year floodplain. Accordingly, there is no practicable alternative that would avoid siting riprap in the floodplain. During construction, some soil erosion may occur or dredged or fill materials may be discharged and minor and temporary impacts may occur to riparian vegetation along the shoreline as the riprap is placed. However, TVA would implement standard measures and apply best management practices in implementing the project in order to minimize or mitigate potential impacts of the project. While some erosion may occur during construction, the primary beneficial effect of the project would be the long-term reduction in erosion of the island's shoreline and in sloughing of its banks.

The proposal is limited in scope and designed to improve degraded conditions along shoreline in this area of Watts Bar Reservoir. The potential adverse impacts of the project, when added to adverse impacts from other activities within the immediate area, would be insignificant. The cumulative impacts associated with other stabilization projects within Watts Bar Reservoir have also been described in the environmental review of the NRP and RLMP.

### **Mitigation**

Authorization to begin work is dependent on TVA obtaining the necessary permits. TVA must obtain an Aquatic Resource Alteration Permit from the State of Tennessee, Department of Environment and Conservation, under Section 401 of the Clean Water Act. TVA must also gain approval for the project from the U.S. Department of Army, Army Corps of Engineers, under Section 404 (Nationwide Permit for Bank Stabilization, NWP-13). TVA will also utilize applicable best management practices to minimize and control erosion during the proposed actions.

### **Conclusion and Findings**

Based on the findings listed above and the analyses in the EA, we conclude that the proposed action of stabilizing 490 feet of shoreline on Iron Hill Island on Watts Bar Reservoir 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