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FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

SECTION 26A APPROVAL FOR PROPOSED STREAM BANK STABILIZATION, TENNESSEE RIVER MILES 457.2 TO 463.1, CHATTANOOGA, HAMILTON COUNTY, TENNESSEE

The National Park Service (NPS) proposes to stabilize a 5.9-mile section of the Tennessee River bank within the Moccasin Bend National Archaeological District (MBNAD) in Chattanooga, Hamilton County, Tennessee. This action requires approval by the Tennessee Valley Authority (TVA) under Section 26a of the TVA Act.

The MBNAD is one of the most significant archaeological sites in the Southeast and is a National Historic Landmark. This portion of the river has experienced bank erosion and sloughing, which is jeopardizing the integrity of cultural resources. NPS proposes to stabilize six reaches of the right descending river bank between Tennessee River Miles 457.2 and 463.1. The stabilization would be done with a combination of techniques, including full riprap protection, partial riprap protection, and bioengineering. In addition to protecting archaeological sites, the stabilization would improve water quality, aquatic and terrestrial wildlife habitat, and visual resources.

At the request of NPS, the U.S. Army Corps of Engineers (USACE), through its Project Planning Branch (PPB), has planned and would construct the bank stabilization project. USACE PPB prepared an environmental assessment (EA) entitled, "*Proposed Stream Bank Stabilization Tennessee River Miles 457.2 to 463.1, Chattanooga, Hamilton County, Tennessee*" in May 2009 (see Attachment 1, Appendix B). TVA cooperated with USACE and NPS in the development of that NPS/USACE PPB EA, which is incorporated by reference. In addition to Section 26a approval, the proposed bank stabilization requires a USACE Section 404 permit. Therefore, the USACE Regulatory Branch subsequently prepared an EA of the proposed action. That USACE EA (see Attachment 1), dated December 2009, is also incorporated by reference.

Alternatives

The NPS/USACE PPB EA evaluated four action alternatives, as well as a No Action Alternative. The No Action Alternative involves a continuation of the existing bank protection, which consists of bank stabilization and protection at locations such as pipeline crossings and a wastewater outfall. The four action alternatives include: Alternative A (Partial Bank Protection) - Stone protection along the toe of the bank up to elevation 638 feet; Alternative B (Full Bank Protection) - Stone protection to top of bank (TOB); Alternative C (Full Bank Protection) - Stone placement to elevation 638 feet and soil fill and bioengineering to TOB; and, Alternative D (Combination of Alternatives A, B, and C). Alternative C is the environmentally preferred alternative but is cost-prohibitive. Alternative D is the NPS's preferred alternative, and construction would be prioritized to address the areas needing protection first from a cultural resource standpoint. As additional funding becomes available, other reaches would be stabilized.

TVA considered two alternatives: 1) the No Action Alternative and 2) the NPS's preferred action alternative (i.e., Alternative D). Under the No Action Alternative, TVA would not issue a Section 26a approval, and the project would not be completed as presently proposed by the NPS.

Under the action Alternative D, TVA would issue a Section 26a approval for the NPS proposal for the proposed bank stabilization utilizing a combination of stabilization methods.

Impacts Assessment

The existing 5.9 miles of MBNAD consist of sands and clays with unstable snags and limited trees. The proposed action is to stabilize the river bank with limestone rip rap and stable vegetation, both in varying degrees depending on the treatment utilized in each of six river reaches. The appearance of the banks would be drastically altered due to the placement of fresh stone and snag/tree removal, but over time discoloration of stone and growth of vegetation will occur. Some of the stabilized banks will appear similar to other stabilized sections of Tennessee River banks in the downtown Chattanooga area. In banks where a toe trench is to be constructed, the excavated material will be placed over the stone above elevation 636 feet to offset visual impacts and the loss of sandy substrate. Seeded mulch may be used to cover the stone between elevations 636 feet and 638 feet. This would provide organic matter and some seasonal vegetation on the bank face. Visual impacts would be most evident during project construction, but would be more aesthetically pleasing over time than the existing sloughing and exposed river bank. Therefore, implementing the proposal would result in an improvement to the visual/aesthetic resource.

Three potential jurisdictional wetlands were identified by USACE; however, all were within the interior of MBNAD and would be avoided during the bank stabilization efforts. Riverbank areas, which are considered wetlands based on the Cowardin classification system used by NPS, are currently degraded. The ecological condition of those areas would be improved by the proposed action. No threatened or endangered mussel species would be affected, and the U.S. Fish and Wildlife Service (USFWS) concurred with this determination. Although the proposed action would eliminate some sandy terraces near the water line used by shorebirds and waterfowl, as well as vertical bank areas used by nesting belted kingfishers, overall impacts to wildlife and vegetation would be beneficial. Portions of the project area have been surveyed for mussels, and those found were relocated outside the project area. NPS has committed to survey and relocate mussels from other portions of the project area. The proposed action would also reduce sediment run-off into the river, resulting in net long-term benefits to aquatic life and water quality. A State of Tennessee Water 401 Quality Certification was issued on June 17, 2009 (see Attachment 1, Appendix D).

Beneficial effects from the stream bank stabilization proposal would be realized over the long-term, including eliminating loss of archaeological resources from erosion and vandalism. The adverse effects to cultural resources would be limited to the potential for the inadvertent discovery of human remains and/or significant archaeological features during the implementation of riverbank stabilization measures. Limitations imposed during project construction, including a prohibition against cutting back the riverbank and requiring construction activity to be accomplished from the water (i.e., by using barge-mounted heavy equipment), would minimize cultural resource impacts. A Memorandum of Agreement (MOA) between NPS, USACE, TVA, and the Tennessee State Historic Preservation Officer has been completed to address these concerns (see Attachment 1, Appendix H).

Implementation of the selected alternative would not have a significant effect on public health or safety. While construction is ongoing, navigational interests would be made aware of the work being performed using moored platforms/barges moored in the river. TVA would require prior notification as listed in the Special Permit Conditions section below. Public access to the work areas would be limited or prohibited. Short term, minor impacts to navigation and public recreation would occur during construction.

For the purpose of Executive Order 11988, Floodplain Management, stream bank stabilization and placement of riprap is considered a repetitive action in the floodplain, and therefore, results in insignificant impacts. No practicable alternative is available for river bank stabilization within the floodplain.

Special Permit Conditions

TVA has identified the following requirements which will be included as conditions of the Section 26a approval:

1. For the safety of the work crews and commercial navigation interests, the NPS will provide TVA's River Forecast Center and the USACE Navigation Branch with the work schedule(s) and contact information as that information becomes available.
2. The NPS contractor shall adhere to all limitations imposed during project construction as described in the cultural resources MOA.

Public and Intergovernmental Review

Several opportunities to comment on the NPS river bank stabilization proposal were available to the public. The USACE PPB issued a scoping letter on December 17, 2004, to seek comments on environmental issues to be considered in planning the project. An informational meeting was held on February 10, 2005, with adjacent property owners, citizens, TVA, and Native American groups. On September 21, 2005, a meeting with Tribal and state historic representatives was held. Each meeting discussed project goals, issues and alternatives and was held to seek input to project planning. An additional workshop and public meeting was held on September 22, 2005.

The NPS/USACE PPB EA was completed in May 2009 and circulated for public review for 30 days. The comments received did not identify any new issues or concerns related to stabilizing the eroding river bank to protect archaeological resources along Moccasin Bend. Comments and responses are included in Attachment 2, NPS Errata Sheets.

On October 24, 2007, the USACE and TVA issued Joint Public Notice 07-84 to advertise the proposal (see Attachment 1, Appendix A). Comments were received in response to the notice from the following entities: Tennessee Historical Commission, Chattanooga Department of Public Works, Alexander Archeological Consultants, Inc., and USFWS. Comments are included in Attachment 1, Appendix F.

Conclusion and Findings

TVA has determined that the NPS/USACE PPB EA and the USACE EA adequately describe the impacts of the MBNAD bank stabilization proposal, and TVA has decided to adopt them. Based on TVA's review, there are no significant adverse impacts, either individually or cumulatively, on the project impact area or its environment. Consequently, we conclude that issuance of a Section 26a approval for the proposed bank stabilization would not be a major federal action significantly affecting the environment. Accordingly, an Environmental Impact Statement is not required. The FONSI is contingent upon the successful implementation of the attached special conditions, and TVA Section 26a General and Standard Conditions for water quality protection.

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2/22/10

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Date Signed

Attachment 1: USACE FEA dated December 17, 2009 including the following appendices:

Appendix A – Joint Public Notice 07-84

Appendix B – Draft Environmental Assessment, *Proposed Stream Bank Stabilization, Tennessee River Miles 457.2 to 463.1, Chattanooga, Hamilton County, Tennessee, May 2009*

Appendix C – 404(b)(1) Guidelines Compliance Checklist

Appendix D – Water Quality Certification

Appendix E – Aerial Photograph

Appendix F – Public Notice Responses

Appendix G – Mussel Surveys at Moccasin Bend and Williams Island (13-16 August 2009)

Appendix H – Historic Properties Memorandum of Agreement

Attachment 2: NPS FONSI dated January 25, 2010 and FEA errata sheets