US Army Corps of Engineers ®
Memphis District

ISSUE DATE: Sept. 25, 2023

PUBLIC NOTICE

EXPIRATION DATE: Oct. 25, 2023

PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS

Availability of Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI)

REPLY TO:
ATTN: Mike Thron
Environmental Compliance Branch
U.S. ARMY CORPS OF ENGINEERS
167 North Main Street, Room B-202
Memphis, Tennessee 38103-1894
Telephone: (901) 544-0708
E-mail: John.m.thron@usace.army.mil

TITLE: Sugar Creek Bank Failure Repair near Mississippi River Mile 768.9L Above Head of Passes

AUTHORITY: This project is authorized by the Flood Control Act of 15 May 1928, Public Law No. 391-70, as amended and supplemented by subsequent Acts of Congress. This Act authorized the Mississippi River and Tributaries (MR&T) Project, which included channel improvement and stabilization works for stabilizing the channel to provide an efficient navigation alignment and protection of flood control features in the Lower Mississippi River (LMR).

LOCATION: The proposed project area is located along the left descending bank of the mouth of Sugar Creek near Mississippi River Mile 768.9L AHP in Tipton County, Tennessee (Figure 1).

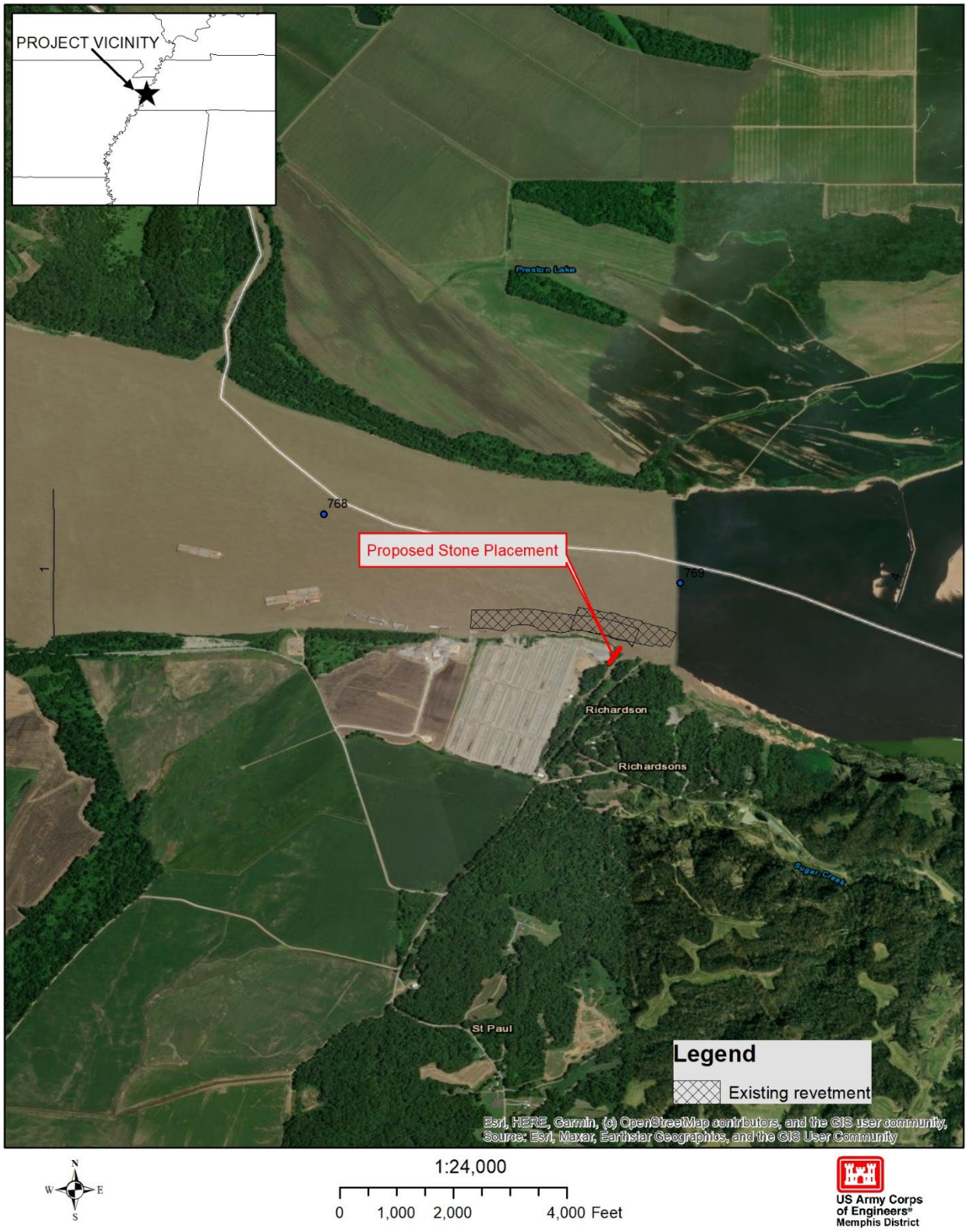


Figure 1. Aerial map of the proposed Sugar Creek Bank Failure Repair near Mississippi River Mile 768.9L AHP in Tipton County, Tennessee.

TO WHOM IT MAY CONCERN: Pursuant to Section 10 of the Rivers and Harbors Act and the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers (USACE), Memphis District, is issuing this notice of the intention to stabilize approximately 300 feet of the left descending bank at the mouth of Sugar Creek with stone where it ties into the existing Richardson Landing Revetment near Mississippi River Mile 769.8L AHP.

PURPOSE: The purpose and need of the project is to maintain a safe navigation channel in the Mississippi River by reducing bank erosion along the left descending bank of the mouth of Sugar Creek that is threatening the integrity of the existing Richardson Landing Revetment.

ALTERNATIVES: Several alternatives were investigated for the proposed bank stabilization efforts at Tipton County, Tennessee. For the purposes of the National Environmental Policy Act (NEPA), the no-action alternative serves as the baseline against which impacts and benefits of the action alternatives are evaluated. A description of each alternative is included below.

Alternative 2.1 No action. The no-action alternative is defined as termination of the proposed project. The extent of bank failures along the left descending bank of Sugar Creek would continue to increase. Erosion would threaten the integrity of the adjacent existing Richardson Landing Revetment along the banks of the Mississippi River. If the Richardson Landing Revetment failed, the estimated repairs of stone paving with a 6-ft. thickness would be approximately 52,000 tons of stone. The stability of the south end of the USACE mat casting field adjacent to Sugar Creek would also be jeopardized, thereby negatively impacting a mission-critical, Federal Life-safety/flood risk management related project.

Alternative 2.2 Vegetative establishment. Establishing adequate tree and vegetation coverage as part of a comprehensive streambank protection plan could provide long term streambank stability. A portion of the mat casting field would need to be converted from its present use and additional lands acquired elsewhere for its operation. Additional private lands upstream of the project area would need to be converted into compatible uses as part of a comprehensive plan. While increasing trees and vegetation would ultimately improve slope stabilization, the rate of bank failure severely outpaces the time necessary to establish trees and vegetation at this location.

Alternative 2.3 Two-Foot Thick Stone Paving. This alternative would consist of clearing the riparian vegetation along the bank, grading the bank, and placing a uniform 2 feet thickness of Graded Stone C (400 pounds max stone size) for approximately 300 feet along the west bank of Sugar Creek. This stone will overlap the existing revetment by 20 feet and 280 feet will be placed on a previously unprotected bank of Sugar Creek. With a 2 feet thickness of stone, the area would remain susceptible to future failures and repeated repairs would be likely.

Alternative 2.4 Stone Toe Protection. Protecting the existing toe of slope with a stone dike/berm could be beneficial and would encourage the slope to self-heal. However, significant additional losses of riparian land along the east boundary of the casting field would occur before the slope stabilizes. Additionally, stone toe protection alone would have a high potential of failure as the creek continues to head-cut and degrade causing the stone to launch.

Alternative 2.5 Stream Barbs. Stream barbs were considered along the left descending bank of Sugar Creek. Proper spacing is important to prevent flow from diverting between barbs and causing bank erosion. Riparian vegetation along top bank would need to be cleared for keying the structures into the bank. Stream barbs were considered; however, stream barbs will not protect banks from erosion due to mass slope failure or rapid drawdown (USDA 2007).

Alternative 2.6 Articulated Concrete Mattress. Grading the failure area and installing articulated concrete mattress (ACM) would immediately improve bank stability. The remaining riparian vegetation would need to be removed for bank grading. Additionally, the proximity of the area of concern to the casting field limits the potential extents of grading directly affecting installation quality. ACM limits would have to extend beyond the centerline of Sugar Creek to adequately protect against head-cutting. The location of the area of concern (narrow, low-flow stream, high/steep banks) makes installing ACM impractical.

Alternative 2.7 Engineered Rock Riffles. Installation of engineered rock riffles as grade control structures at strategic locations along the banks near the mouth of Sugar Creek would ultimately help to stabilize the stream banks by decreasing channel velocity at critical areas. While engineered rock riffles may provide long-term stability to the stream bank in the area of concern, they alone will not achieve the immediate bank stability needed to ensure protection of the east end of the casting field. Coupling engineered rock riffles with additional streambank protection measures could provide long term stability but would also increase the project footprint.

Alternative 2.8 Six-foot thick stone paving. This alternative would consist of placing approximately 4,800 tons of bank paving using Graded Stone C (400 pounds max stone size) for approximately 300 feet along the west bank of Sugar Creek. The stone would overlap the existing revetment by 20 feet and 280 feet would be placed on a previously unprotected bank of Sugar Creek. No earthwork is required. Stone paving will be a minimum of 6 feet thick, placed no steeper than 1.5H:1V, and extend from top bank to the toe of the slope without encroaching on the approximate centerline of Sugar Creek to ensure adequate protection against future head cutting. No established trees would be removed or modified by the stone placement contractor. The work would be performed by river-based equipment, with stone delivered by barge and placed by a barge-mounted trackhoe during higher river stages for adequate floatation. Preconstruction and as-built surveys would be collected to ensure stone placement occurs only within the limits specified on the plans.

The no action alternative was determined to be unacceptable because of the increasing risks to the downstream Richardson Landing Revetment and adjacent USACE mat casting field. Alternative 2.2 was not feasible because the rate of bank failure severely outpaces the time necessary to establish trees and vegetation at this location. Alternative 2.3 would have low initial construction costs, but the non-optimized, uniform paving section would leave the area susceptible to repeated failures in the future, requiring repeated repairs negating any cost savings. Additionally, there would be no environmental advantages, since the slopes are too steep for uniform thickness paving to adequately cover the bank in this area and grading would be required prior to stone placement. Earthwork would require removal of the remaining riparian vegetation along the work reach. Alternative 2.4 would result in additional losses of riparian land along the east boundary of the casting field that would occur before the slope stabilizes, and the

alternative would have a high potential of failure as the creek continues to head-cut and degrade causing the stone to launch. Alternative 2.5 would not protect banks from erosion due to mass slope failure or rapid drawdown resulting in a high potential of failure and would require clearing of additional riparian vegetation along top bank. Alternative 2.6 would have a large construction footprint due to the need to clear the remaining riparian vegetation along top bank and extend out past the centerline of the channel. Additionally, the proximity of the area of concern to the casting field limits the potential extents of grading directly affecting installation quality of ACM. Alternative 2.7 would take time to provide adequate protection and need to be coupled with additional bank protection measures, ultimately increasing the project footprint. Alternative 2.8 would not require clearing of riparian vegetation since it would be performed by river-based equipment, with stone delivered by barge and placed by a barge-mounted trackhoe during higher river stages for adequate floatation. Alternative 2.8 offered the best compromise of environmental impacts and project costs, and thus was selected as the proposed action.

DESCRIPTION OF WORK: The proposed work will consist of placing approximately 4,800 tons of bank paving using Graded Stone C (400 pounds max stone size) for approximately 300 feet along the bank. This stone will overlap the existing revetment by 20 feet and 280 feet will be placed on a previously unprotected bank of Sugar Creek. Stone paving will be a minimum of 6 feet thick, placed no steeper than 1.5H:1V, and extend from top bank to the toe of the slope without encroaching on the approximate centerline of Sugar Creek to ensure adequate protection against future head cutting.

WATER QUALITY CERTIFICATION: A general aquatic resources alteration permit (ARAP) which serves as the Section 401 water quality certification from the state was received from the Tennessee Department of Environment and Conservation on 7 September 2023 and is included in the appendix of the Draft EA.

SECTION 404 OF THE CLEAN WATER ACT AND SECTION 10 OF THE RIVERS AND HARBORS ACT: The proposed rock placement is within the limits of the terms and conditions of Nationwide Permit 13 for bank stabilization, pursuant to Section 404 of the Clean Water Act. The impact of the activity on the public interest is being evaluated in accordance with Section 10 of the Rivers and Harbors Act of 1899.

ENDANGERED SPECIES: The proposed action would have no effect on the federally endangered northern long-eared bat (*Myotis septentrionalis*) as determined using the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) system, pursuant to Section 7(a)(2) of the Endangered Species Act. The proposed activities are not likely to jeopardize the continued existence of the proposed endangered tricolored bat (*Perimyotis subflavus*), proposed threatened alligator snapping turtle (*Macrochelys temminckii*), or candidate monarch butterfly (*Danaus plexipus*). Requirements of Section 7 of the Endangered Species Act have been fulfilled.

CULTURAL RESOURCES: Pursuant to 36 CFR 800.3(a)(1), the District Archaeologist has determined that this project has no potential to cause effects to historic properties eligible for the National Register of Historic Places. Thus, no further Section 106 (National Historic

Preservation Act) consultation is required. However, if prehistoric or historic artifacts, human bones, or other archaeological materials subject to the Native American Graves Protection and Repatriation Act (NAGPRA) are found during construction, all activities would cease immediately in that area and the Memphis District Archaeologist would be contacted. State Historic Preservation Office and tribal NAGPRA representatives, the local sheriff, etc., will be contacted as required by state and federal law.

PUBLIC INTEREST REVIEW: The purpose of this public notice is to advise all interested parties of the proposed activities and to solicit comments and information necessary to evaluate the probable impact on the public interest.

The decision to proceed with this project will be based on an evaluation of the probable impact, including cumulative impacts, of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The potential benefits that reasonably may be expected to accrue from the activity must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the activity will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; federal, state and local agencies and officials; Native American Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Comments are used in preparation of the final environmental assessment and/or draft environmental impact statement pursuant to the National Environmental Policy Act and are also used to determine the overall public interest of the proposed activity. **The draft EA and draft FONSI will be circulated to agencies and any other parties that respond to this notice requesting copies. Copies of these documents have been placed on the District's website at:**

http://www.mvm.usace.army.mil/About/Offices/Regulatory/PublicNotices.aspx.

PUBLIC HEARING: Any person may request in writing, within the comment period specified in this notice, that a public hearing be held to consider this proposed project. Requests for a public hearing shall clearly state the reason for holding a public hearing. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed in order to reach a decision on the project.

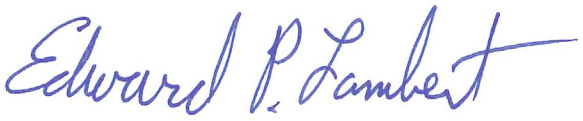
COMMENTS OR REQUEST FOR ADDITIONAL INFORMATION: Send comments to the Corps of Engineers, Memphis District. Comments may be sent via mail or E-mail to the following:

U.S. Army Corps of Engineers Memphis District
ATTN: Mike Thron

167 North Main Street, Room B-202
Memphis, Tennessee 38103-1894
E-mail: john.m.thron@usace.army.mil
phone: (901) 544-0708

If you wish to obtain additional information, contact Mike Thron at the U.S. Army Corps of Engineers, Environmental Compliance Branch, 167 North Main Street, Room B-202, Memphis, Tennessee 38103-1894, telephone 901/544-0708. **Comments should be forwarded to this office by October 25, 2023.**

Sincerely,



Edward P. Lambert
Chief, Environmental Compliance Branch,
Regional Planning and Environmental Division South