DRAFT

FINDING OF NO SIGNIFICANT IMPACT

MERRIWETHER-CHEROKEE AND PRESIDENTS ISLAND TOP BANK REPAIRS LAKE AND SHELBY COUNTIES, TENNESSEE

The U.S. Army Corps of Engineers, Memphis District, intends to repair the top bank failures along the left descending bank of the Mississippi River near approximate river miles 869 and 733 above Head of Passes (AHP) in Lake and Shelby Counties, Tennessee, resulting from the flood of 2011. Record flooding occurred in the Lower Mississippi River in early May 2011 resulting in these two large top bank failures within the Memphis District. The river stage during peak flow near the Merriwether-Cherokee failure location (river mile 869) was 48.22 feet on the Tiptonville Gage on May 6, 2011. The bank failure at Merriwether-Cherokee threatened to cut off a nine mile meander of the river. At Presidents Island (river mile 733), the river stage during peak flow was 48.0 feet on the Memphis Gage on May 9, 2011. Approximately 75% of the entire flow was across Presidents Island during peak flow, threatening to cut off approximately six miles of river meander.

The proposed work at Merriwether-Cherokee consists of construction of a stone containment baffle approximately 1,600 feet in length placed across the overbank scour hole and parallel to the recently restored top bank. Bank paving consisting of riprap side slopes would connect the baffle to top bank for reinforcement and to prevent flanking. The existing scour hole between the stone baffle and top bank would then be filled with approximately 1.2 million cubic yards of dredge fill for stability. Assuming a production rate of approximately 26,400 cubic yards of dredged sand per day, approximately 46 days of dredging would likely be required for the dredge fill. Dredge sand would be piped in from the river near the failure location, and effluent would return to the Mississippi River through an existing notch in the recently restored top bank closure structure. Finally, underwater bank armoring consisting of 8,100 squares of articulated concrete mattress (ACM) would be installed riverside of top bank, and riprap stone paving (maximum thickness of 4 feet) would be installed on top of the dredge fill, extending approximately 100 feet landward of top bank. The same approach would be used for the proposed repairs at Presidents Island. Approximately 135,000 tons of stone would be used to construct the containment baffle extending approximately 2,400 feet in length, and approximately 2 million cubic yards of dredge fill would be needed to fill the scour hole between the containment baffle and top bank. Assuming a production rate of approximately 26,400 cubic yards of dredged sand per day, approximately 76 days of dredging would likely be required for the dredge fill. Dredge sand would be piped in from the river near the failure location, and effluent would return to the Mississippi River through an existing notch in the recently restored top bank closure structure. Finally, underwater bank armoring consisting of 9,600 squares of articulated concrete mattress (ACM) would be installed riverside of top bank, and riprap stone paving (maximum thickness of 4 feet) would be installed on top of the dredge fill, extending approximately 100 feet landward of top bank. All rock work would be conducted from the water. Draglines would be used to pull rock from floating barges for the placement of rock. The barges would access the overbank scour hole at each location through an approximately 300-foot wide notch in the newly restored top bank. Dredge pipes would temporarily be placed across the land during the dredge fill operation.

A draft Environmental Assessment (EA), dated May 24, 2012, was prepared to determine the potential impacts of the proposed work on agricultural lands; prime and unique farmlands; terrestrial and wildlife resources; wetlands; threatened and endangered species; cultural resources; recreation resources; socio-economic resources; air quality; water quality and hydrology; aquatic resources and fisheries; navigation; hazardous, toxic, and radioactive waste; cumulative impacts; and the human environment.

The proposed actions have been coordinated with the U.S. Fish and Wildlife Service and are part of an emergency consultation for flood repairs due to the 2011 flood, as provided for in Section 7 of the Endangered Species Act, as amended. The U.S. Fish and Wildlife Service does not believe that the flood repairs would result in jeopardy to federally listed species. Investigations into hazardous, toxic, or radioactive waste (HTRW) activities near the project area revealed that no known HTRW sites would be impacted by the proposed project. Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, the proposed placement of rock within the scour holes and the proposed dredge fill are covered under Nationwide Permit 3 for Maintenance Activities. No adverse impacts to navigation are expected. An Aquatic Resource Alteration Permit (ARAP), or Section 401 water quality certification, was received from the State of Tennessee for the proposed repairs at Merriwether-Cherokee on 4 April 2012 and for Presidents Island on 19 March 2012. No known cultural resources are within the proposed project rights-of-way. Completion of the proposed action will provide protection against flood damages to a known archeological site southeast of the project. The project is being coordinated with the Tennessee State Historic Preservation Officer and tribal representatives.

A public notice and Draft Environmental Assessment describing the proposed actions were posted on the Memphis District's website (http://www.mvm.usace.army.mil/regulatory/public-notices/pn.asp) and distributed to a wide list of interested parties including appropriate state and federal agencies.

After review of the documentation, I have determined this project is not a major Federal action significantly affecting the human environment nor does it indicate significant new circumstances or information relative to environmental concerns or bearing on the proposed action or its impacts. Therefore, I have determined that an environmental impact statement is not required.

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Date

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Vernie L. Reichling
Colonel, Corps of Engineers
District Commander