



**US Army Corps  
of Engineers** ®  
Memphis District

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PUBLIC NOTICE

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**PUBLIC NOTICE**  
**U.S. ARMY CORPS OF ENGINEERS**

**Availability of Draft Environmental Assessment (EA), Draft Finding  
of No Significant Impact (FONSI), and 404 (b)(1) Evaluation**

**REPLY TO:**

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**Environmental Compliance Branch**

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**TITLE:** Island 18/Dyer County Little Levee (DCLL) Emergency Repairs, Mississippi River, Dyer County, Tennessee

**AUTHORITY:** USACE has authority under Public Law 84-99 (PL 84-99), Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186) for emergency management activities. Under PL 84-99, the Chief of Engineers, acting for the Secretary of the Army, is authorized to undertake activities, including rehabilitation of flood control works threatened or destroyed by flood. The work along the toe of the DCLL is authorized as part of PL 84-99. The purpose of the repairs is to reconstruct the levee toe to the pre-flood section and grade and stabilize the active scour using stone protection.

The work to restore the top bank of the Mississippi River, additional paving and repairs on existing Dike #2, and restoration of the Island No. 18 Closure Dike is authorized by the MR&T Channel Improvement Authority as authorized under the 1928 Flood Control Act.

**LOCATION:** The project location is the Island No. 18 complex and includes the top left descending bank (LDB) of the Mississippi River, the closure structure at the upstream mouth of

Everett Lake, and the toe of the DCLL/LDB of Everett Lake, near river mile 837 above head of passes (Figure 1).

**TO WHOM IT MAY CONCERN:** Pursuant to Section 404 of the Clean Water Act (CWA), and the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers (USACE), Memphis District, is issuing this public notice detailing impacts associated with emergency repairs within the Island No. 18 complex to include the top LDB of the Mississippi River, the closure structure at the upstream mouth of Everett Lake, and the toe of the DCLL/LDB of Everett Lake. The associated draft EA details the items that were constructed in 2 phases between January 2019 and May 2019, referred to hereafter as Phase 1 and Phase 2.

**PURPOSE:** As a result of flooding over the past several years, significant damage has occurred at RM 837 in several areas, as described above. An emergency declaration was released on 11 January 2019 to allow for the high priority work to be completed in an expedited manner. The top LDB of the Mississippi River failed and was becoming more unstable within the Island No. 18 complex. In addition, prior to the Phase 1 repairs, the likelihood of DCLL failure was very high due to the observed progression of bank failures. Subsequent to the Phase 1 repairs, the likelihood of the DCLL failure was reduced for the immediate future; however, an emergency situation remained due to continuing flood conditions forecast throughout the spring of 2019. Therefore Phase 2 was also completed to complete the protection of the Island 18 complex and the area protected by the DCLL. The DCLL supports a public road, protects approximately 12,000 acres of agriculturally developed land, 30 homes, 1 business, a church and 41 farm buildings. The total value of the structures is estimated at \$2,935,000. It is also estimated that approximately 80 people reside within the area. With the levee in its current condition, this prolonged high water event is likely to cause the continued erosion of the levee if action is not taken. The sandbar on the riverside of Island No. 18, which is utilized by the federally endangered interior least tern during their reproductive season, was also being damaged because of the changes to flow patterns.

**ALTERNATIVES:** Four alternatives were considered for the prior to completion of the preferred alternative. These alternatives were: (1) No-action; (2) reconstruction of Everett Lake Closure Structure, downstream location; (3) reconstruction of Everett Lake Closure Structure, in place, and (4) levee setback. Due to the high priority nature of this action, Phase 1 has been constructed and Phase 2 is 90% complete, as of May 9, 2019.

2.1 Alternative 1 – No Action. This alternative consisted of providing no further emergency repairs under PL84-99 or MR&T Channel Improvement authority. Under this alternative, the likelihood of DCLL failure occurring was high due to the projected flood season of 2019. The Everett Lake closure dike was breached allowing high flows to scour the DCLL. The DCLL has height sufficient to provide protection from a 4 percent chance of exceedance flood (25-year level of protection) without freeboard. If the scour had been allowed to continue, a levee breach was likely, and water would enter the area at an uncontrolled rate with no way to accurately predict where the breach may occur. A levee breach would have resulted in damage to agricultural land, property loss, displacement of residents, and could potentially cause human injuries and/or loss of life. Due to the significant negative consequences of the “No Action” alternative, it was deemed unacceptable.

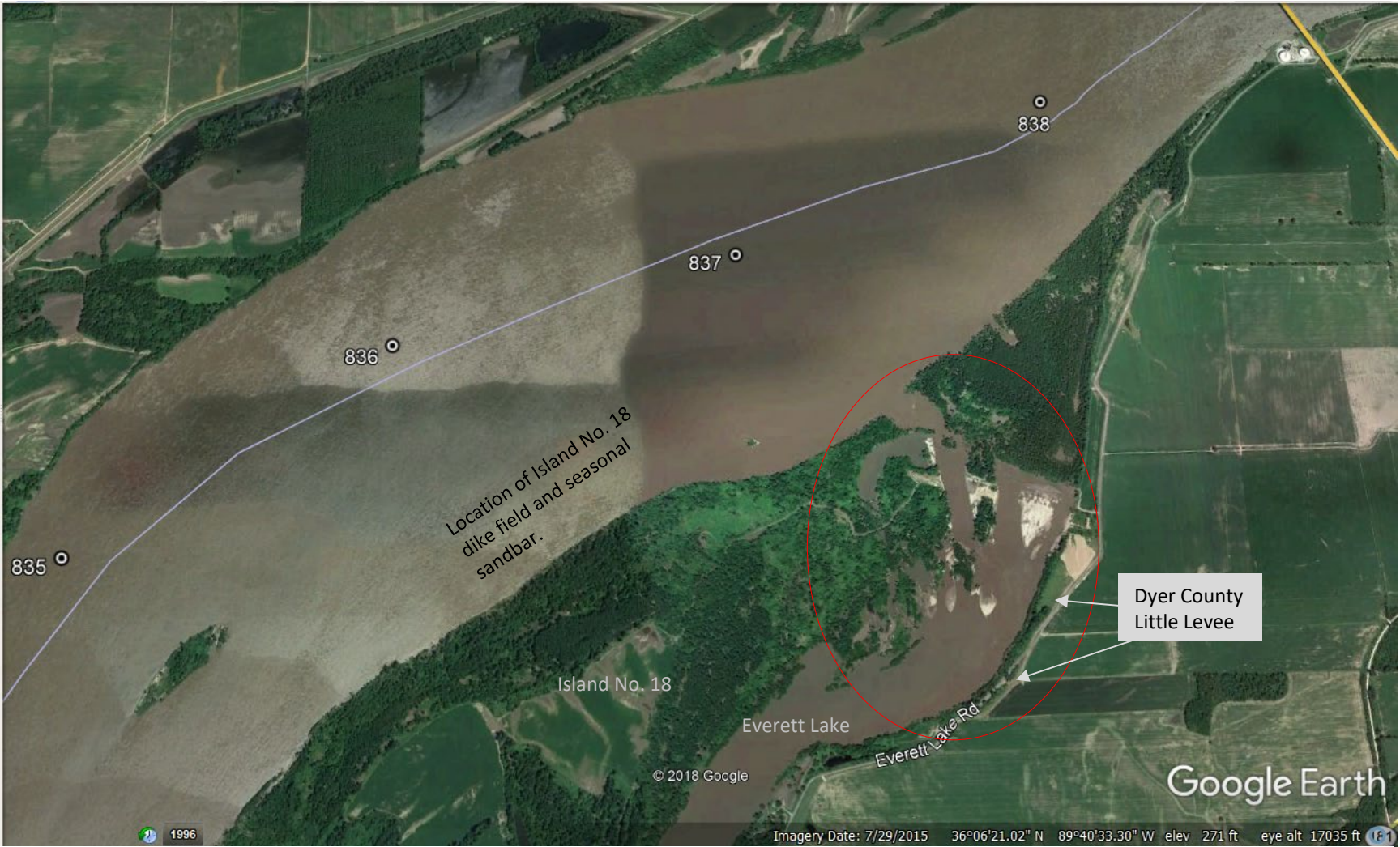


Figure 1. Vicinity map of the Island No. 18/Dyer County Little Levee Emergency Repair project located in Dyer County, Tennessee.

2.2 Alternative 2. The selected alternative consists of constructing Phases 1 and 2 as described in Section 1.1- Description of Action, above, at a cost of approximately \$7,000,000. Phase 1 included the immediate riprap bank protection of the DCLL toe and the top bank of Everett Lake to prevent likely failure of the DCLL, and the restoration of the top LDB of the main channel of the Mississippi River. The Phase 1 repairs were required to restore the riverbank to correct flow and to reduce the water velocity and amount of water entering Everett Lake as substantial damage to the DCLL/Everett Lake Road was occurring. Approximately 65,600 tons of Class A riprap was placed at a thickness of up to 25 feet to restore approximately 1,275 feet of the LDB of the main channel. The crown width of the restored LDB totals approximately 14 feet with up- and downstream slopes of approximately 1-foot horizontal to 2.5-feet vertical (1H:2.5V). A 55-foot wide stone apron consisting of 27,200 tons of class C riprap was placed directly behind the restored top bank for the entire length of the structure at approximately 4 feet thick to prevent scour behind the repair. The Phase 1 repairs also included placement of approximately 28,800 tons of class C riprap along approximately 900 feet of the DCLL (LDB of Everett Lake) to repair the immediate damage and prevent likely failure of the DCLL. The riprap was placed along the bank from the toe of the DCLL riverward for approximately 150 feet at a typical slope of 1H:1.5V. This levee protects approximately 12,000 acres of land including residences, other important community assets, and the Mainline Mississippi River Levee/Highway 181. Riprap was delivered by barge, and the work was performed by floating plant using barge mounted draglines or hydraulic excavators.

Phase 2 work includes the Everett Lake Closure Structure replacement which replaces the structure that was constructed of sand in the 1960's as well as the remainder of the required riprap bank protection. High water is still actively eroding the bank upstream of the Phase 1-DCLL riprap protection, and this problem will be corrected when Phase 2 is complete. The Everett Lake Closure Structure replacement provides immediate protection for the DCLL/Everett Road. The structure was moved downstream by approximately 900 feet to avoid constructing in the scour hole. Construction of the Everett Lake Closure Structure required approximately 32,000 tons of class A riprap and 56,000 tons of class C riprap across approximately 1,500 feet of the upstream end of Everett Lake. The closure structure was constructed with an upstream slope of 1V:1.25H and a downstream slope of 1V:1.5H with an approximate 14-foot crown. Riprap is also being placed along the LDB of Everett Lake/toe of the DCLL to restore the pre-flood section and grade to prevent further degradation and to stabilize the bank. The bank protection adjacent to the structure on the LDB of Everett Lake will extend from approximately 200 feet upstream of the structure to the existing bank protection on DCLL placed during Phase 1. The bank protection adjacent to the structure on the right descending bank (RDB) will extend from approximately 100 feet upstream to approximately 300 feet downstream of the closure. Detailed plans and cross-sections of all work areas are shown in Appendix A of the associated EA.

This alternative re-stabilizes the Island No. 18 complex, protects approximately 60 acres of riparian habitat, and is expected to cause accretion upstream of the Everett Lake Closure Structure on the landside, eventually resulting in approximately 25 acres of wetland/riparian habitat. The Phase 2 Everett Lake Closure Structure was constructed at an average elevation of 260 feet NAVD88, which is approximately 12-13 feet lower than the original structure. This, at least partially, meets an objective of the Lower Mississippi River Conservation Committee's 'Restoring America's Greatest River Initiative' (Appendix B of the associated EA) by improving aquatic

connectivity in Everett Lake. Overbank flow will enter Everett Lake more frequently, and for a longer duration than pre-breach. This repair also contributes to stability within the Island No. 18 complex as high-water will flow over an armored site first, rather than causing additional scour in unidentified or unprotected areas. Also, USACE is actively engaged in recommending the planting of tree screens as a conservation measure to landowners in the area.

2.3 Alternative 3. This alternative consisted of reconstructing the closure dike along the original alignment. Approximately 250,000 tons of stone would be required to rebuild the structure with an estimated cost of approximately \$6,250,000, which was not feasible from a cost standpoint. The structure would have required reconstruction to its original elevation of approximately 272 NAVD88 to tie back into the existing top banks and dimensions with stone, preventing any increased flow through Everett Lake. Hydrologic analysis showed the structure, if constructed in this manner, would not reliably protect the DCLL from future scour. In addition, the environmental benefits identified in Alternative 2 could not be realized. Therefore, Alternative 3 was eliminated from further consideration.

2.4 Alternative 4. This alternative consisted of setting the levee back by a distance of approximately 150 feet. The levee would be constructed to the same dimensions (approximate 20-ft crown width and 1V:3H side slopes). Approximately 162,800 cubic yards of borrow material would have come from the existing levee, and an additional 40,000 cubic yards of borrow would have been needed from an unidentified borrow area. It was assumed that this borrow area would be located in prior-converted cropland between the mainline Mississippi River Levee and the DCLL. The levee crown would be covered with approximately 3,000 tons of aggregate surfacing to allow for transportation. This alternative would have required more than one construction season and could not be started until the flood hazards are greatly reduced in summer and early fall. This delay increased the risk of a breach due to delay which would endanger life, property, farmland, and businesses. The construction of a setback would also impact a significant amount of prime farmland. The cost would likely exceed costs associated with other alternatives. It is assumed that the levee setback would impact prime farmland and potentially some wetland/BLH areas; however, a layout of the setback was not completed.

The no action alternative was determined to be unacceptable because of the risks to public safety and property, and the extent of projected flood damages (including \$1,047,000 annually for crops and \$178,000 for farm property other than crops). Alternative 3 was determined to be unacceptable as this alternative would be more expensive, less reliable for protection of the DCLL, and would not provide equivocal environmental benefits compared with Alternative 2. Alternative 4 would require more than one construction season, could not be started until the flood hazards are greatly reduced in summer and early fall, and would result in the loss of prime farmland. With the levee in its pre-construction condition, a prolonged high water event was likely to cause the continued erosion of the levee and increased risks of a levee breach this flood season.

Alternative 2 was selected and constructed for the following reasons: it will be completed during this spring flood season, is the most effective and least costly structural alternative, and it provides environmental benefits.

**DESCRIPTION OF WORK:** Due to the high priority nature of the work described herein, the USACE, completed Phase 1 of the emergency repairs on 2 February 2019. Phase 1 included the immediate riprap bank protection of the DCLL toe and the top bank of Everett Lake to prevent likely failure of the DCLL and the restoration of the top LDB of the main channel of the Mississippi River. The Phase 1 repairs were required to restore the riverbank to correct flow, and to reduce the water velocity and amount of water entering Everett Lake as substantial damage to the DCLL/Everett Lake Road was occurring.

Approximately 65,600 tons of Class A riprap was placed at a thickness of up to 25 feet to restore approximately 1,275 feet of the LDB of the main channel. The crown width of the restored LDB totals approximately 14 feet with up- and downstream slopes of approximately 1-foot horizontal to 2.5-foot vertical (1H:2.5V). A 55-foot wide stone apron consisting of 27,200 tons of class C riprap was placed directly behind the restored top bank for the entire length of the structure at approximately 4 feet thick to prevent scour behind the repair. The Phase 1 repairs also included placement of approximately 28,800 tons of class C riprap along approximately 900 feet of the DCLL (LDB of Everett Lake) to repair the immediate damage and prevent likely failure of the DCLL. The riprap was placed along the bank from the toe of the DCLL riverward for approximately 150 feet at a typical slope of 1H:1.5V. This levee protects approximately 12,000 acres of land including residences, other important community assets, and the Mainline Mississippi River Levee/Highway 181. Riprap was delivered by barge, and the work was performed by floating plant using barge mounted draglines or hydraulic excavators.

Construction on Phase 2 began on 15 April and is expected to be complete on 18 May 2019. This work includes the Everett Lake Closure Structure replacement which replaces the structure that was constructed of sand in the 1960's as well as the remainder of the required riprap bank protection. High water is still actively eroding the bank upstream of the completed Phase 1-DCLL riprap protection. The Everett Lake Closure Structure replacement provides immediate protection for the DCLL/Everett Road. The structure was moved downstream by approximately 900 feet to avoid constructing in the scour hole. The sand structure was breached and no longer functioning. Construction of the Everett Lake Closure Structure required approximately 32,000 tons of class A riprap and 56,000 tons of class C riprap across approximately 1,500 feet of the upstream end of Everett Lake. The closure structure was constructed with an upstream slope of 1V:1.25H and a downstream slope of 1V:1.5H with an approximate 14-foot crown. Riprap was also placed along the LDB of Everett Lake/toe of the DCLL to restore the pre-flood section and grade to prevent further degradation and to stabilize the bank. The bank protection adjacent to the structure on the LDB of Everett Lake now extends from approximately 200 feet upstream of the structure to the existing bank protection on DCLL placed during Phase 1. The bank protection adjacent to the structure on the right descending bank (RDB) extends from approximately 100 feet upstream to approximately 300 feet downstream of the closure. Detailed plans and cross-sections of all work areas are shown in Appendix A of the associated EA.

**WATER QUALITY CERTIFICATION:** Pursuant to Section 404 of the Clean Water Act, a public notice and Section 404(b)(1) Evaluation were completed. The Tennessee Department of Environment and Conservation (TDEC) was informed by email dated January 11, 2019, that the Memphis District was implementing emergency repair procedures on the levee and within the channel. This notification was necessary due to imminent risks to life and property associated

with the potential failure of the levee. The emergency declaration allows the repairs to be made prior to the receipt of an official water quality certification. Water Quality Certifications for the Phase 1 and Phase 2 activities were received on February 28 and on April 15, 2019, respectively.

**SECTION 404 (b)(1) EVALUATION OF THE CLEAN WATER ACT:** The impact of the activity on the public interest is being evaluated in accordance with the Environmental Protection Agency guidelines pursuant to Section 404(b)(1) of the Clean Water Act. The Section 404(b)(1) Evaluation is included in Appendix D of the associated draft EA.

**THREATENED AND ENDANGERED SPECIES:** Five federally listed species may occur in the vicinity of the proposed project areas: the endangered interior least tern (*Sterna antillarum athalassos*), endangered pallid sturgeon (*Scaphirhynchus albus*), endangered fat pocketbook mussel (*Potamilus capax*), endangered Indiana bat (*Myotis sodalis*), and threatened northern long-eared bat (*Myotis septentrionalis*). Pursuant to Section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service concurred with the USACE not likely to adversely affect determination for federally listed species and critical habitat.

**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 are to cease immediately in that area and the Memphis District Archaeologist, shall be contacted. State Historic Preservation Officer 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 completed activities and to solicit comments and information necessary to evaluate the impact on the public interest.

The decision to proceed with this project was based on an evaluation of the probable impact, including cumulative impacts, of the activity on the public interest. That decision reflects the national concern for both protection and utilization of important resources. The potential benefits that reasonably may be expected to accrue from the activity were balanced against its reasonably foreseeable detriments. All factors which may be relevant to the activity were considered, including the cumulative effects thereof; among those were 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; Indian Tribes, and other interested parties in order to consider and evaluate the

impacts of the completed activity. Comments will be 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 project. **The draft EA, draft FONSI, and Section 404(b)(1) Evaluation 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 under Memphis District Civil Works Projects at:**

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

**COMMENTS OR REQUEST FOR ADDITIONAL INFORMATION:** If you wish to obtain additional information or to submit comments on this proposal, contact Andrea Carpenter at the U.S. Army Corps of Engineers, Environmental Compliance Branch, 167 North Main Street, Room B-202, Memphis, Tennessee 38103-1894, telephone 901/544-0817. **Comments should be forwarded to this office by June 29, 2019.**

Sincerely,



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