



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

**ISSUE DATE:** April 24, 2020

**EXPIRATION DATE:** May 23, 2020

**PUBLIC NOTICE**

**U.S. Army Corps of Engineers  
Memphis District**

**Availability of draft Environmental Assessment  
and draft Finding of No Significant Impacts**

**TITLE:** Mississippi River Mainline Levee, Island 8 Parcel 2 Seepage Control Measures, Fulton County, Kentucky.

**AUTHORITY:** The project is authorized as part of the Flood Control Act of 1928, as amended.

**LOCATION:** The proposed seepage control measures are located at Island 8, Parcel 2, along the Mississippi River mainline levee (MRL) portion of the Mississippi River and Tributaries system, located near Hickman, Fulton County, Kentucky (Figure 1).

**TO WHOM IT MAY CONCERN:** Pursuant to the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers (USACE), Memphis District (MVM), is issuing this notice of the proposed installation of seepage remediation measures along the Island 8, Parcel 2 portion of the MRL near Hickman, Kentucky.

**PURPOSE:** The purpose of the proposed action is to control seepage under the MRL during flood events on the Mississippi River to prevent levee damage or failure. Seepage could undermine the levee causing it to breach if unabated and flood the surrounding lands and residential areas, potentially threatening the lives and property of residents within the flooded areas. A 1998 final supplemental environmental impact statement (EIS), *Mississippi River Mainline Levees Enlargement and Seepage Control*, addressed seepage control measures to be implemented along the MRL at selected sections from levee stations 5/13+00 – 15/15+00. Additionally, in 2007, an environmental assessment (EA), *Mississippi River Levee Construction Project, Seepage Control Measures*, was completed to address additional seepage issues, via relief wells from levee stations 3/76+70 – 16/37+82, which were not identified when the July 1998 final SEIS was completed. Furthermore, in 2012, an EA, *Mississippi River Mainline Levee, Island 8 Seepage Control Project*, was completed to address additional seepage issues, via relief wells and channel work from levee stations 5/17+00 – 7/35+00 and 10/30+00 – 14/0+00. However, during the winter flood of 2015-16, further seepage issues were noted from levee stations 2/0+00 – 3/76+70 (Parcel 2), locations not described in the 1998 SEIS or 2007 and 2012 EAs (Figure 2).

**DESCRIPTION OF PROPOSED ACTION:** The proposed project involves implementing seepage control measures along the MRL in Fulton County, Kentucky. Project features for the proposed seepage control action include installing 79 relief wells and associated underground piping to carry seep water, creation of new drainage ditches, modification of existing drainage ditches, culvert replacement at four locations with associated adjacent rip-rap placement to prevent scour, and removal of large snags and debris from Running Slough. The location of each proposed action is presented in Figure 3. Access to the project areas would be from State Highway 94, County Road 311, as well as Sutton, Sutton East, John Wright, and Sycamore roads. Specialized drill rigs would be used to drill the holes along the levee, and cranes would be used to install the relief wells. Bulldozers and excavators would be used to construct the new drainage ditches and widen the existing field ditch. Spoil material from the ditch creation and enlargement would be placed and spread onto adjacent agricultural fields currently in production. The proposed action is not anticipated to result in significant impacts to the natural or human environment and any temporary disturbances occurring during the construction period would be expected to return to existing conditions after completion of the project action.

### **Alternatives Considered**

Three alternatives were considered: alternative 1 (No Action); alternative 2 (Install Relief Wells with Associated Drainage Work); and alternative 3 (Construct a Landside Seepage Berm).

**1) No Action:** In the future without project condition (no-action), the proposed action would not be constructed. The no-action alternative would result in continued seepage during flood conditions. Sands and silts would be carried under the levee, potentially causing sand boils. This could eventually lead to a levee failure during a major flood event. Failure of the levee could result in property damage, human injuries and/or loss of life.

**2) Install Relief Wells with Associated Drainage Work:** This alternative would involve implementing seepage control measures along the MRL. Project features would include installing 79 relief wells, creation of new drainage ditches and modifying existing drainage systems to accommodate additional seep water, culvert replacement at four locations with associated adjacent rip-rap placement to prevent scour, and removal of large snags and debris from Running Slough. Spoil material from the ditch creation and modification would be placed and spread onto adjacent agricultural fields currently in production.

**3) Construct Landside Seepage Berms:** This alternative would involve construction of a landside berm along the toe of the MRL to control seepage under the levee. However, as opposed to relief wells, borrow material would be needed to construct a seepage berm. Suitable soils would need to be obtained from borrow areas located at the project site or hauled in from an off-site location. A suitable site would first need to be located, landowner access for rights-of-entry obtained, and soil borings conducted to determine if sufficient quantities are available. Once a suitable site is located, the land or borrow rights would need to be purchased. Although a sufficient means of addressing seepage risk, additional time would be required to locate suitable borrow sources. Additionally, if the borrow areas were to be located in wooded or farmed wetlands, adverse environmental impacts could result and may require compensatory mitigation.

After careful consideration of all alternatives, it was determined that alternative 1 (no-action) was unacceptable because of risks to human life and property. If a seepage problem is not addressed, levee failure resulting in catastrophic impacts could ultimately result. Due to the potential of increased adverse environmental effects and time delay associated with locating

suitable borrow areas, it was determined that alternative 3 (landside berm) is not practicable or reasonable. Alternative 2 (relief wells and associated drainage work) has higher maintenance costs than the other alternatives, but has fewer adverse environmental impacts. All factors considered, alternative 2 is the most practical solution for seepage control, the least environmentally damaging practicable alternative, and is the preferred alternative for the proposed project assessed in this draft EA.

**CLEAN WATER ACT:** No significant impacts to water quality would occur as a result of the proposed project, as the adjacent Mississippi River and area ditches normally carry a heavy sediment load. The proposed culvert replacements within Running Slough meet criteria set forth in Nationwide Permit 3, Maintenance. The Kentucky Department of Environmental Protection issued a general state water quality certification in March 2017 for the re-issuance of the Nationwide Permits as it applies to water within the state. The proposed project meets the conditions set forth in the re-issuance.

**PROTECTED SPECIES:** In September 2019, USACE biologists conducted a site assessment of the project area to determine the presence of suitable/potential habitat for listed protected species. Pursuant to Section 7 of the Endangered Species Act, as amended, USACE has determined that the proposed project would have no effect on federally listed threatened or endangered species, including the gray bat, Indiana bat, northern long-eared bat, least tern, pallid sturgeon, or fat pocketbook mussel. Additionally, although records indicate the presence of historic bald eagle nests in the project vicinity, none were observed, nor historically documented, within 660 feet of the proposed project rights-of-way.

**CULTURAL RESOURCES:** An archaeological, architectural, and historical resources survey of the project area was conducted in 1983 by American Resources Group, Inc. One prehistoric and nine historic site(s) were located along the Island No. 8 levee, although none occur within the proposed project footprint. Additionally, the MVM staff conducted a site visit on 10 September 2019 and observed no cultural material within the project area's Area-of-Potential-Effect. Therefore, it is anticipated that there would be no historic properties affected as a result of the proposed project and no additional cultural resources investigations are recommended prior to project implementation. Coordination with federally recognized Native American Tribes with interests within MVM, as well as the Kentucky Heritage Council, is being conducted with the circulation of this draft EA.

**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. This notice is being circulated to federal, state and local environmental agencies. The decision to proceed with the proposed modifications 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 of the activity must be balanced against its reasonably foreseeable detriments. Potential direct, indirect, and cumulative effects of the activity on the human environment will be considered.

The USACE is soliciting comments from the public, federal, state, and local agencies and officials; Native American Tribes; and other interested parties to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by MVM to determine whether to proceed with the proposed action. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors. Comments are also used in preparation

of the final EA or draft EIS pursuant to the National Environmental Policy Act and to determine the overall public interest of the proposed activity. The draft EA and draft Finding of No Significant Impact have been completed and will be circulated to agencies and any other party that responds to this notice requesting a copy. A copy has been placed on the District's website at: <http://www.mvm.usace.army.mil/About/Offices/Regulatory/Public-Notices/>.

**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 action. Requests for a public hearing should 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 to reach a decision on the project. Should any agency or individual decline comment on this notice, it will be interpreted by MVM to mean that there is no objection to the proposed work.

**COMMENTS OR REQUEST FOR ADDITIONAL INFORMATION:** Send comments to the U.S. Army Corps of Engineers, Memphis District. Comments may be sent via mail or email to the following:

U.S. Army Corps of Engineers – Memphis District  
ATTN: Joshua Koontz  
167 North Main St., Room B-202  
Memphis, TN 38103-1894  
e-mail: [joshua.m.koontz@usace.army.mil](mailto:joshua.m.koontz@usace.army.mil)  
phone: (901)544-3975

Comments must be received by the expiration date listed on page one of this notice.

Sincerely,



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

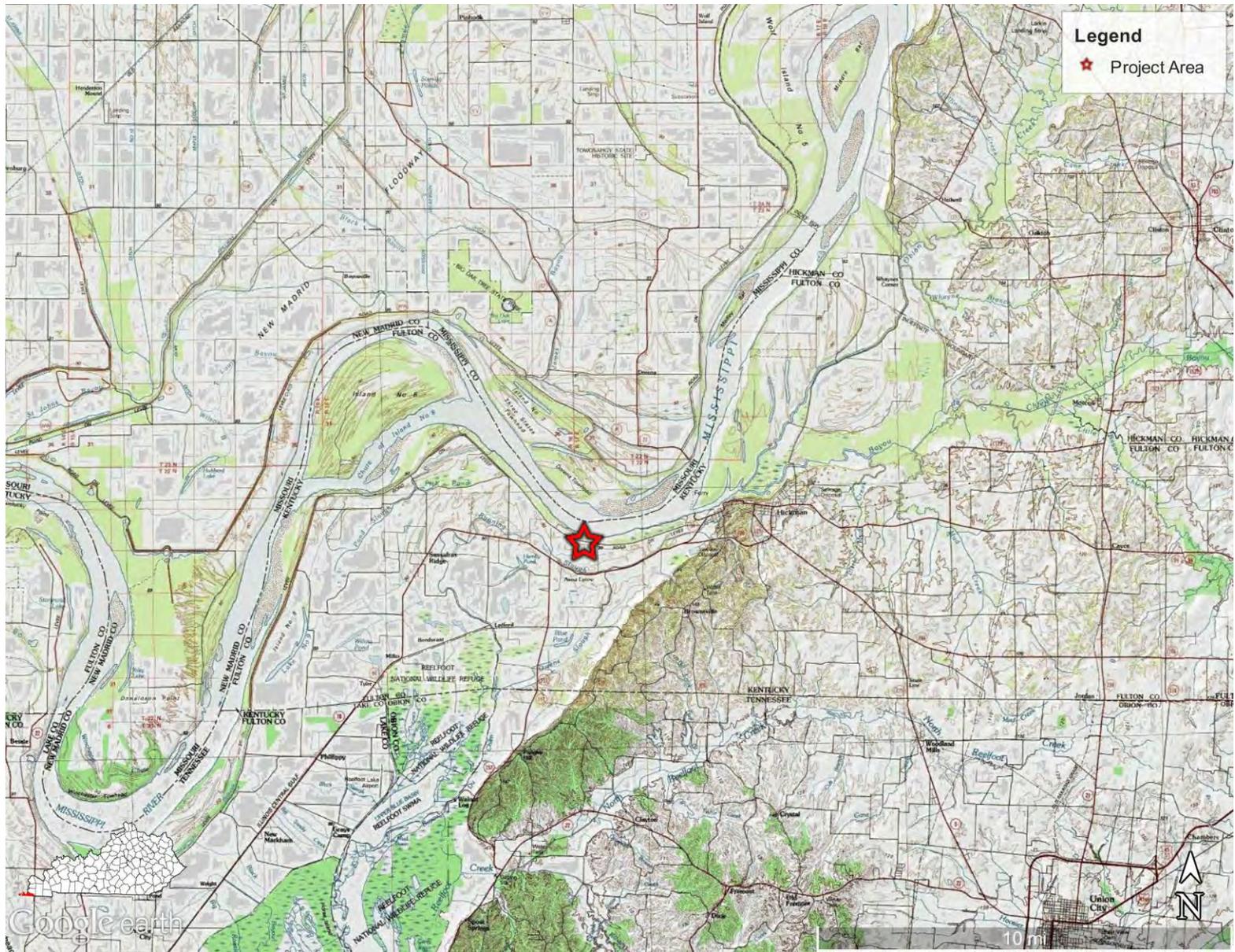


Figure 1. Location of proposed seepage control measures, Fulton County, Kentucky.

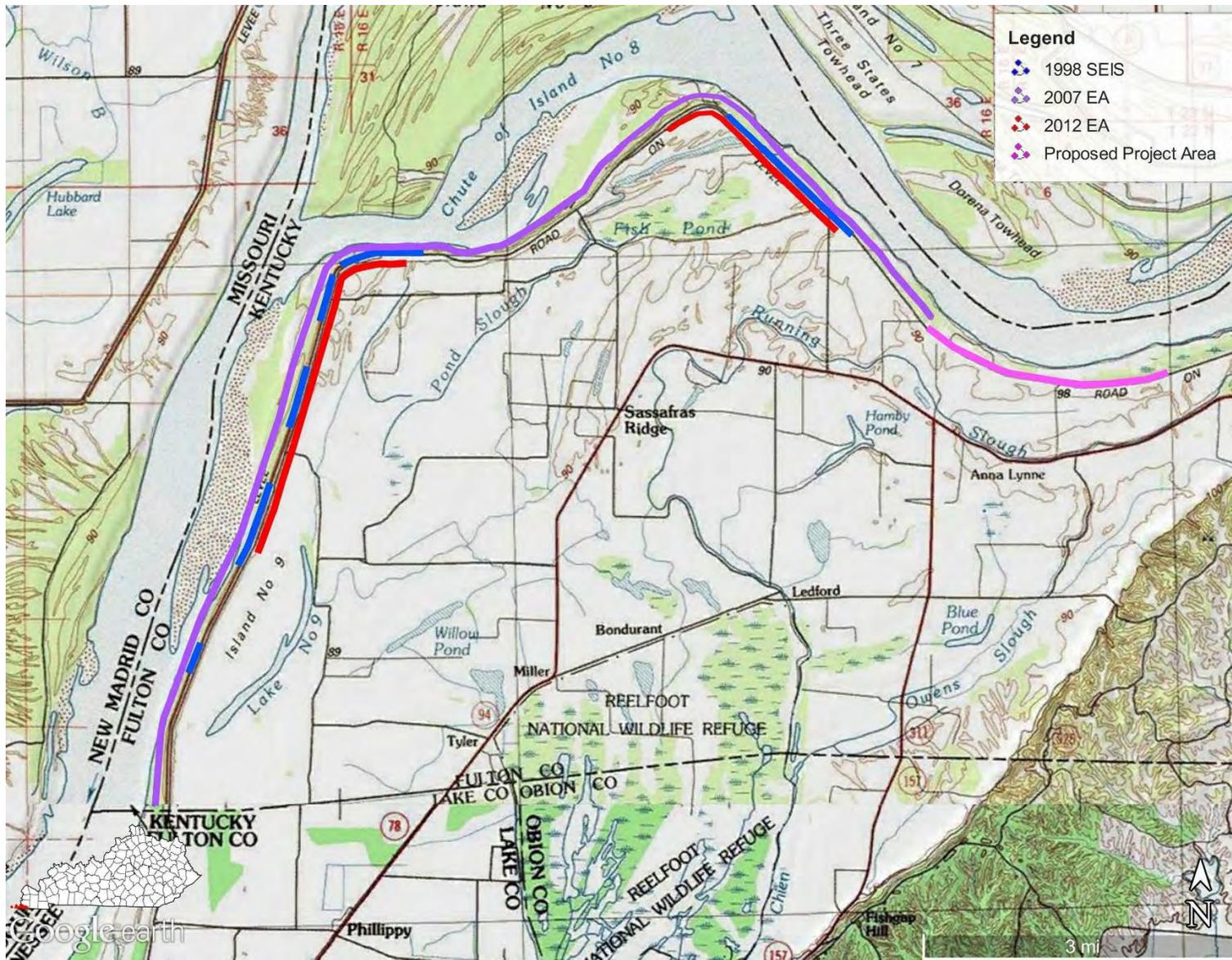


Figure 2. Island 8 seepage control projects and associated National Environmental Policy Act documentation, Fulton County, Kentucky.

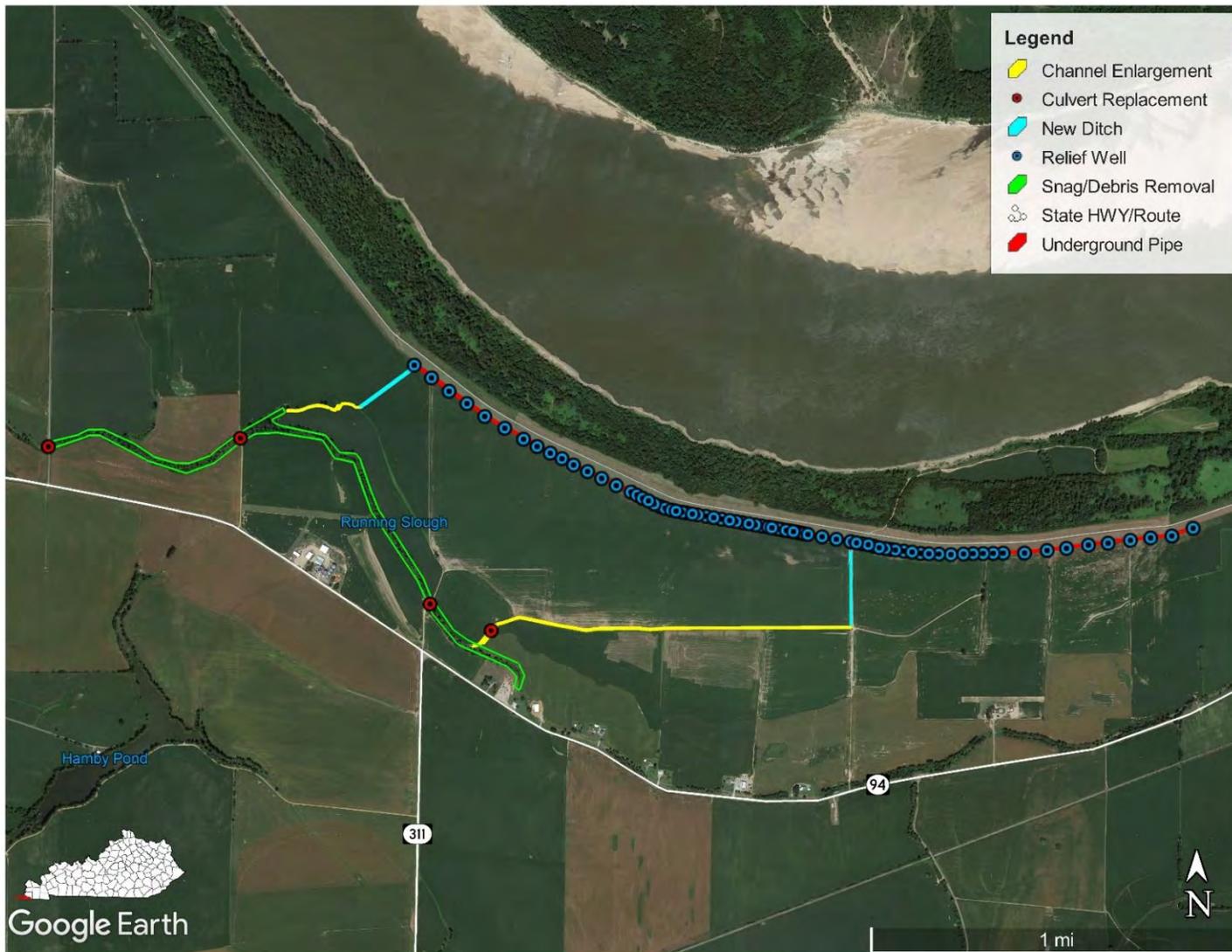


Figure 3. Proposed seepage control measures along the Mississippi River mainline levee at the Island 8 Parcel 2 project area, Fulton County, Kentucky.