



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

ISSUE DATE: January 8, 2016

PUBLIC NOTICE

EXPIRATION DATE: February 8, 2016

NOTICE OF AVAILABILITY

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

REPLY TO:

ATTN: Kevin Pigott, Environmental Compliance Section
U.S. Army Corps of Engineers
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TITLE: St. Francis Lake Control Structure – Scour Closure Repair, Poinsett County, Arkansas.

AUTHORITY: The proposed action is authorized as part of the Flood Control Act of 1965, as amended.

LOCATION: The proposed project is located immediately east of the control structure on Ditch 60 near the city of Marked Tree, Poinsett County, Arkansas. A vicinity map is enclosed (Figures 1 and 2).

TO WHOM IT MAY CONCERN: Pursuant to the National Environmental Policy Act of 1969 as amended, the U.S. Army Corps of Engineers, Memphis District (CEMVM), is issuing this notice with the intention of constructing a scour closure repair between Ditches 60 and 61, riprap armoring of the closure, creation of a riprap dike on Dam 10, repair and improvement of the existing gravel road along Dam 10, and erosion control measures along the improved gravel road.

PURPOSE: The soil in the project area and vicinity is very sandy and prone to erosion. Dam 10 was constructed to allow for overland sheet flow at pool elevations of 214.0. At pool elevations of 212.0, flow is concentrated in low areas concentrating flow and increasing scour potential. An active scour has been created just west of Dam 10. The ability to maintain and regulate St. Francis Lake pool elevations is significantly impacted. Any attempts to pool water at the existing control structure would simply divert water through the scour, further enlarging it to a point where both Ditch 60 control structure and Dam 10 are rendered ineffective.

PROPOSED ACTION. The project features for the proposed measure are to repair the active scour between Ditches 60 and 61 to allow for the increased ability to maintain and regulate St. Francis Lake pool elevations. A R2200 riprap closure will be constructed at the existing scour. In addition to the riprap closure, R400 riprap armoring will be placed immediately downstream of the riprap closure as well as the addition of a R400 riprap dike at the adjacent Dam 10. Ancillary to the scour repair is the repair and improvement of an existing gravel road between Ditches 60 and 61 and installation of a riprap hardpoint along the south (downstream) side of the improved road. These ancillary erosion control measures are to prevent further scour between Ditches 60 and 61 and to hold soil in place during periods of overland flow. Access to the project area will be from existing gravel roads. No wetlands would be impacted by this project. Furthermore, the proposed action would stop the loss of forested habitat that currently occurs after significant storm events.

ALTERNATIVES TO THE PROPOSED ACTION: Five alternatives to the proposed action were considered. These alternatives were: no-action; construct the dam to original design; construct dam with a “safe fail” configuration; reconstruct the dam upstream of Dam 10; and construct second control structure to the original design.

Alternative 1 - Future without Project Condition. In the future without project condition (*i.e.*, no-action), the proposed action would not be constructed. The no-action alternative would result in continued scouring of Ditch 61 that would result in the loss of additional acres of forest habitat. New channels would continue to be created in the Oak Donnick Floodway, bringing floodwaters to Marked Tree and decreasing flood warning times. St. Francis Lake water elevations would not be maintained, increasing draining of the lake and reduced recreational opportunities at the publicly accessible waterbody.

Alternative 2 - Construct the Dam to Original Design.

Under this alternative, the proposed project action would include the dam being constructed to an elevation of 212.2 feet and extended to close the scour to or above existing ground level (approximately 215.0 feet) without repairing the gravel road or placing a hard point south of the road. This alternative of rebuilding the dam in place would not prevent additional scour between Ditches 60 and 61 and not be constructed to prevent future scour occurring when the dam was naturally overtopped. The soils in the project area are primarily easily erodible sands. These soil conditions have historically allowed un-armored structures to be flanked and required extensive and repeated repairs. Therefore, the dam as originally designed would be expected to fail and require repair prior to the end of the design life.

Alternative 3 (Preferred Alternative) – Construct Dam with a “Safe Fail” Configuration.

Under this alternative, the proposed project action would include degrading the dam to approximately 212.5 feet and extending the dam structure to close the scour with a riprap dike and apron. A R2200 riprap closure would be constructed at the existing scour. In addition, R400 riprap armoring would be placed immediately downstream of the riprap closure, and a R400 riprap dike would be added at the adjacent Dam 10. Ancillary to the scour repair is the repair and improvement of an existing gravel road between Ditches 60 and 61 and installation of a riprap hardpoint along the south (downstream) side of the improved road. These ancillary

erosion control measures would prevent further scour between Ditches 60 and 61 and hold soil in place during periods of overland flow. Approximately 15,100 tons of R2200 riprap, 5,900 tons of R400 riprap, 190 tons of bedding material, and 440 tons of road aggregate would be used in this alternative. Approximately 1,420 square yards of geotextile material would also be used.

Alternative 4 - Construct a Dam Upstream of Dam 10.

Under this alternative, the proposed project action would include construction of a dam, but at an optimal location upstream of the existing scour to facilitate the least amount of environmental impact and least amount of materials required. This alternative would not prevent additional scour between Ditches 60 and 61. The soils in the project area are primarily easily erodible sands. These soil conditions have historically allowed un-armored structures to be flanked and required extensive and repeated repairs. Although this alternative may be cheaper to build than the preferred alternative, it would require additional armoring to prevent the flanking and ultimate failure of the structure prior to the end of the design life. Even if a dam were constructed at a narrower location, there would be an environmental impact to wetlands if the dam were constructed outside the preferred alternative footprint. These wetland impacts would be due to road construction to the new dam location and a new dam footprint.

Alternative 5 - Construct a Second Control Structure to Original Design.

Under this alternative, the proposed project action would include constructing a second control structure. This structure would be built upstream or parallel to the Ditch 60 structure. Alternative 5 was determined to be unacceptable because it would incur a higher cost than an earthen dam (unarmored or armored). As stated in the 1970 Memphis District General Design Memorandum 108, additional clean-outs on Ditch 61 would need to occur and under high water conditions in the area, it would be difficult to access the Ditch 61 control structure.

The No Action alternative was determined to be unacceptable because of the continued degradation at the scour and the impact to St. Francis Lake. Alternative 2 was determined to be unacceptable because it would not prevent additional scour between Ditches 60 and 61. Additionally, site conditions have not changed and the dam would be expected to fail prior to the end of the design life.

Preferred Alternative

Alternative 3 was selected as the preferred alternative because of the ability to maintain desired elevation in St. Francis Lake and provide a "safe fail" configuration that would reduce the threat of future scour under high water conditions. Alternative 4 was determined to be unacceptable because it would not prevent additional scour between Ditches 60 and 61, be prone to failure in a similar fashion to Alternate 2, and could incur a greater environmental impact if not constructed in the previously cleared footprint. Alternative 5 was determined to be unacceptable because it would incur a high cost and create additional ditch cleanouts and accessibility problems during certain times of the year. Therefore, Alternative 3 is the proposed action for the St. Francis Lake Scour Closure Repair project assessed in this draft EA.

CLEAN WATER ACT: The proposed project is authorized as part of the Flood Control Act of 1965, as amended, and the proposed project action to close the scour at Dam 10 is considered to be maintenance. Requirements for Section 404 of the Clean Water Act are fulfilled by the Nationwide Permit Section 3 Maintenance (a) as follows:

3. Maintenance. (a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized.

The proposed project action also meets the requirements set forth in the State of Arkansas, Clean Water Act Section 401 Water Quality Certification, 2012 General and Specific Conditions. The project does not trigger any new permit requirements set forth in the conditions noted in the Arkansas Re-Issuance of Nationwide Permit Regional Conditions for all Nationwide Permits. In particular, the proposed project will not physically alter a significant segment of the waterbody and will not violate the water quality criteria. Additionally, the proposed project will not impact Arkansas Extraordinary Resource Waters, Ecologically Sensitive Waters, and Natural and Scenic Waters; a Short Term Activity Authorization will be applied for prior to construction; and Arkansas NPDES Stormwater Program requirements will be met.

THREATENED AND ENDANGERED SPECIES: Corps of Engineers biologists conducted a site assessment of the proposed project area. No evidence of threatened or endangered species was found during the site visits. The project area is outside the consultation area for the Northern Long-eared Bat (*Myotis septentrionalis*). No Fat Pocketbook (*Potamilus capax*) mussels were found in the project area mussel survey. Habitat within Ditch 61 and the scour was generally found to be highly unstable sand, containing significant amounts of woody debris from the fallen trees, and is characterized by high water velocity. These conditions do not provide habitat considered suitable for *P. capax*.

Endangered species collection records from the U.S. Fish and Wildlife (USFWS) do not indicate that federally listed or proposed endangered or threatened species occur within the project area. Coordination with USFWS has occurred with the determination that "the proposed project may affect but is unlikely to adversely affect the Fat Pocketbook."

CULTURAL RESOURCES: No known cultural resources occur in the project footprint. 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 (NHPA) 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, Dr. Robert Dunn (901-544-0706), shall be contacted. The 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 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.

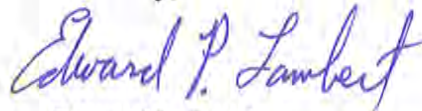
CEMVM is soliciting comments from public, federal, state, and local agencies and officials; federally recognized Native American tribes and other interested parties in order to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by CEMVM to determine whether 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 used in preparation of the final EA pursuant to the National Environmental Policy Act. Comments are also used to determine the overall public interest of the proposed activity. Comments are also considered by the Arkansas Department of Environmental Quality pertaining to the granting and/or conditioning of water quality certification. **The draft EA and draft FONSI have been completed and will be circulated to agencies and any other party that responds to this notice requesting a copy. A copy of the draft EA and draft FONSI 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 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 in order to reach a decision on the project. Failure of any agency or individual to comment on this notice will be interpreted to mean that there is no objection to the proposed work.

COMMENTS OR REQUEST FOR ADDITIONAL INFORMATION: The draft EA and associated draft FONSI were prepared by Kevin Pigott, biologist, with cultural resources information provided by Jimmy McNeil and Dr. Robert Dunn, district archaeologists. For additional information or to submit comments on this proposal, please contact Mr. Kevin Pigott at (901) 544-4309, by e-mail at Kevin.R.Pigott@usace.army.mil, or by mail at the U.S. Army Corps of Engineers, Memphis District, ATTN: Kevin Pigott, 167 North Main Street RM B-202, Memphis, Tennessee 38103-1894. **Comments should be forwarded to this office by February 8, 2016.**

Sincerely,



Edward P. Lambert
Chief, Environmental Compliance Branch



Figure 1. Project Area, St. Francis Scour Closure Repair, near Marked Tree, AR.

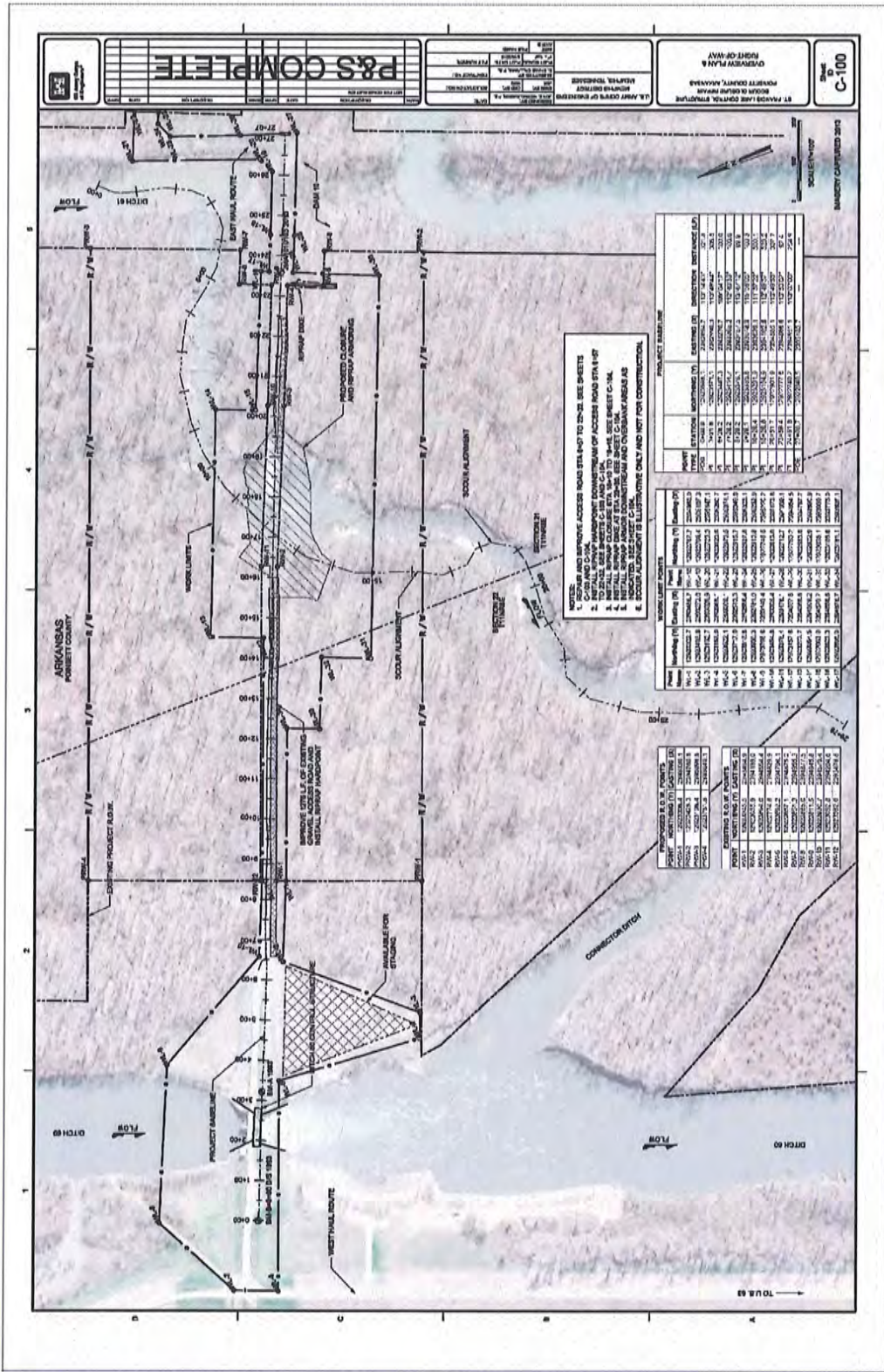


Figure 2. Scour Closure Repair Project Features.