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# **Three Rivers Southeast Arkansas Study**

## *Appendix K: Cultural Resources*

## **THREE RIVERS SOUTHEAST ARKANSAS**

### **Introduction**

The Three Rivers Southeast Arkansas Feasibility Study (Three Rivers Study) is being conducted by the U. S. Army Corps of Engineers (USACE) to recommend modifications to the McClellan-Kerr Arkansas River Navigation System (MKARNS) that would provide long-term sustainable navigation and promote the continued safe and reliable economic use of the MKARNS.

### **Study Authority**

Section 216, Flood Control Act of 1970 (Public Law 91-611) authorizes a feasibility study due to examine significantly changed physical and economic conditions in the Three Rivers study area. The study will evaluate and recommend modifications for long-term sustainable navigation on the MKARNS.

### **Study Purpose**

There is a risk of a breach of the existing Soil Cement Structure near the entrance channel to the MKARNS on the White River. During high water events, Mississippi backwater can create significant head differentials between the Arkansas and White rivers. The existing Soil Cement Structure in the isthmus between the Arkansas and White rivers is subject to damaging overtopping, flanking and seepage flows that could result in a catastrophic breach and failure of the system. The uninhibited development of a breach, or cutoff, has the potential to create navigation hazards, increase the need for dredging, and adversely impact an estimated 200 acres of bottomland hardwood forest in the isthmus.

Based on the Section 216 authority, the study is investigating alternatives that would minimize the risk of cut off development, including reducing the cost of maintenance associated with preventing cutoff development, while minimizing impacts to the surrounding ecosystem.

### **Non-Federal Sponsor**

The Arkansas Waterways Commission is the non-federal sponsor for the Three Rivers Southeast Arkansas Study. An amended feasibility cost-sharing agreement was executed in June 2015.

### **Recommended Plan**

The recommended plan consists of a newly constructed 2.5-mile long containment structure at an elevation of 157 feet above mean sea level (ft msl) that would begin on natural high ground just south and west of the existing Melinda Structure located on the south side of Owens Lake. It would continue east and cross the Melinda head cut south of the existing Melinda Structure. From there, it would head northeast and connect to the existing Soil Cement Structure north of Jim Smith Lake. It continues to follow the existing Soil Cement Structure alignment terminating at the existing Historic Closure Structure. The recommended plan also includes a relief opening at the Historic Cutoff to an elevation 145 ft msl regardless of the width. In addition, the existing Melinda Structure would be demolished in place and the debris would be pushed into the deep scour hole at the top of the head cut. Finally, adding an opening in the existing Owens Lake Structure between Owens Lake and the White River would prevent water from backing up into Owens Lake, which would impact the bottomland hardwood forest. The opening would be designed to allow fish passage into Owens Lake.

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## **Cultural Resources**

Federal agencies are required under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, to “take into account the effects of their undertakings on historic properties” [(36 CFR 800.1(a)]. There are other applicable cultural resources laws, rules and regulations that will inform how the investigations and evaluations will proceed throughout the study and implementation phases (e.g., Archeological and Historic Preservation Act of 1974, National Environmental Policy Act of 1969, Native American Graves Protection and Repatriation Act, Engineer Regulation 1105-2-100). Section 106 requires the federal agency to identify and evaluate the significance of historic properties that may be affected by the proposed undertaking in consultation with the State Historic Preservation Officer (SHPO) and appropriate federally recognized Indian Tribes (Tribal Historic Preservation Officers - THPO).

## **Geomorphology**

The study area, as noted, is located in southeastern Arkansas along the White, Arkansas and Mississippi Rivers in Arkansas and Desha Counties, and is characterized by flat bottomlands and low gently dissected inter-stream areas underlain by Quaternary alluvium and terrace deposits (Dunn and Riggs 1988). Several geomorphic studies have been undertaken either near or within the proposed study area. One such study (Smith 1988), focused on the Arkansas/White River Cutoff Containment Area and found that, “lateral migration of the rivers in the study area has most certainly destroyed many archaeological sites that occurred in the area. On the other hand, those sites which were not destroyed are probably preserved beneath at least six feet of historic sediment” (Smith 1988:5). Well drained areas on natural levees adjacent to abandoned channels and courses, bluffs, and other elevated topographic positions in previously undisturbed areas would be likely locations to find archeological sites. The relatively recent age of the landforms of the project area preclude the possibility of the occurrence of intact cultural resources greater than 800-1,000 years old (Smith 1988).

## **Culture History**

### *Prehistoric*

The study area’s general location is rich with of prehistoric and historic occupation. Prehistoric Native American occupation, prior to European settlement, can be documented chronologically through six periods (Dunn and Riggs 1988):

Paleo-Indian Period – 9500-8000 B.C.

Dalton Period – 8000-7000 B.C.

Early to Middle Archaic Period – 7000-3000 B.C.

Late Archaic Period – 3000-750 B.C.

Woodland Period – 1000 B.C. – A.D. 900

Mississippian Period – A.D. 700 to Contact

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## *Historic*

Historic European use of the area can be divided into four general periods:

1. French and Spanish Occupation: Early accounts indicate there were four Quapaw villages in or near the study area in the late 1600's (Bennett et al. 1989b). The French and Spanish occupation, which lasted from 1680 to 1800, was characterized by a few trading posts, small population, and little development. In 1686, the French established the first European colony in the Mississippi River Valley at Arkansas Post, near the Quapaw village of Osotouy.
2. American Settlement: American settlement lasted from 1800 to 1840. This period was characterized by population growth and some development. Montgomery's tavern at Arkansas Post served for militia musters.
3. Civil War: The Civil War period was from 1861 to 1865. A Civil War battle occurred at Arkansas Post in 1863. The area also contained an army camp and a freedman's camp at the end of the Civil War.
4. Steamboat Trade: The steamboat trade period lasted from 1865 to 1927. During this period, there were at least 12 steamboat wrecks that occurred at or near Montgomery Point.

## **Background Research**

A review of the Arkansas Archeological Survey's (AAS) Automated Management of Archeological Sites Data in Arkansas (AMASDA) database and other sources revealed several prior terrestrial and submerged cultural resources surveys and investigations either near or within the proposed study area (Bennett et al. 1989a; Bennett et al. 1989b; Branam 2003; Buchner and Krivor 2001; Dunn and Riggs 1987; 1988; James et al. 2006). Although the review identified previous surveys near or transecting the study area, it is important to note large tracts of unsurveyed land also exist within the study area.

Alternative 1, and up to a kilometer around it (focused study area), was examined for the presence of any known cultural resources. Five archaeological sites have been recorded within the study area of Alternative 1; however, the eligibility of these resources for inclusion in the NRHP is undetermined at this time. The direct and indirect impacts from Alternative 1 have the potential to cause effects to the five known sites within the study area. The recorded sites were reported to the Arkansas Archeological Survey (who recorded them) and were not discovered as the result of a cultural survey. Additional research revealed the Arkansas River and the historic Arkansas-White River cut off within the study area were water routes of the Trail of Tears. Additional coordination and consultation will be required to determine if there are any associated features (landmarks) remaining of these historic routes that could be impacted.

Located within the focused study area is a historic cutoff structure built in 1963 which is considered an historical architectural resource. National Register eligibility of this historic cutoff structure is undetermined at this time; Alternative 1 will have direct

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impacts on this historic cutoff structure. A containment structure, running east/west of the historic cut off structure, was built along with two weirs named, "Melinda" and "Owens" between 1989 and 1993. Not being 50 years in age, and being impacted by Alternative 1, these structures (as a whole) need to be analyzed to determine if they have achieved significance since their construction (NRHP Criterion Consideration G).

With the exception of the Memorial Unit and Otosouy Unit of the Arkansas Post National Memorial (outside the focused study area), there are no properties known to be eligible, or evaluated for listing on the NRHP within the focused study area.

Within the maximum horizontal and vertical extent of construction activities associated with Alternative 1, there is the potential to encounter unidentified archaeological sites, as the majority of the project area has not been culturally surveyed. A Programmatic Agreement (Attached) was executed between the USACE Little Rock District, the Arkansas State Historic Preservation Officer, all pertinent Tribal Nations, the Non-Federal Sponsor, and the Advisory Council on Historic Preservation to ensure that prior to construction activities for Alternative 1 take place, the agreed upon Area of Potential Effect will be culturally surveyed to identify historic properties, and ensure they will not be adversely effected.

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**ATTACHMENT 1**  
**PROGRAMMATIC AGREEMENT**

**PROGRAMMATIC AGREEMENT  
AMONG  
THE U.S. ARMY CORPS OF ENGINEERS, LITTLE ROCK DISTRICT,  
THE ARKANSAS STATE HISTORIC PRESERVATION OFFICER,  
THE ARKANSAS WATERWAYS COMMISSION,  
THE OSAGE NATION,  
THE QUAPAW TRIBE OF OKLAHOMA,  
AND THE  
ADVISORY COUNCIL ON HISTORIC PRESERVATION  
REGARDING COMPLIANCE WITH SECTION 106 OF THE  
NATIONAL HISTORIC PRESERVATION ACT FOR  
THE THREE RIVERS FEASIBILITY STUDY  
AND ENVIRONMENTAL ASSESSMENT  
IN  
ARKANSAS AND DESHA COUNTIES, ARKANSAS**

WHEREAS, the U.S. Army Corps of Engineers, Little Rock District (USACE) is cost sharing with the Arkansas Waterways Commission for the implementation of the Three Rivers Study, which presents an alternative (Alternative 1) that would lead to long-term environmentally sustainable navigation on the McClellan-Kerr Arkansas River Navigation System (MKARNS), prevent long term lost navigation during repairs, and address the continuing short term maintenance costs of the existing structures; and

WHEREAS, the Three Rivers Study is authorized by Section 216 of the Flood Control Act of 1970 (Public Law 91-611) to investigate alternatives that would minimize the risk of cutoff development, including reducing the cost of maintenance associated with preventing cutoff development, while minimizing impacts to the surrounding ecosystem; and

WHEREAS, Alternative 1 in the Three Rivers Study (hereinafter, “Undertaking”) consists of the construction of a new stone containment structure, the opening of the historic cutoff and demolition of the Melinda Weir Structure (further outlined in **Attachment A**); and

WHEREAS, USACE has defined the Undertaking’s area of potential effects (APE) as described in Attachment A; however, the final horizontal and vertical direct APE cannot be fully determined until the pre-construction, engineering and design phase of the study, and will be developed in consultation with all Signatories, Invited Signatories, and Consulting Parties to this Programmatic Agreement (PA); and

WHEREAS, during the pre-construction, engineering, and design phase of the study, the construction footprint of the Undertaking will be developed through revisions and redesigning with the final work plan being developed in consultation with all Signatories, Invited Signatories, and Consulting Parties to this PA; and

WHEREAS, USACE has determined that all activities associated with the construction have the potential to effect historic properties eligible for listing in the National Register of Historic Places (NRHP) (hereinafter, “historic properties”), pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) (NHPA), as amended, and its implementing regulations (36 CFR Part 800); and

WHEREAS, the Arkansas Waterways Commission (AWC) is the non-Federal partner with the USACE for construction and maintenance of this Undertaking, and are providing the necessary lands, easements, relocations and rights-of-way; and

WHEREAS, USACE has developed this PA to describe the process that will be followed for identifying historic properties, assessing effects, and resolving any identified adverse effects within the horizontal footprint of the Undertaking, prior to construction, and the process USACE will follow in the event that unanticipated discoveries are identified during construction and maintenance activities, and to ensure that the Section 106 process is fulfilled for the proposed Undertaking; and

WHEREAS, the USACE, has consulted with the Arkansas State Historic Preservation Officer (SHPO), pursuant to 36 CFR 800, the regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f) in developing a PA for the implementation of the Undertaking, in accordance with 36 CFR § 800.6 and 36 CFR § 800.14(b)(1)(ii); and

WHEREAS, in accordance with 36 CFR 800, in 2017, the USACE has consulted with the Cherokee Nation, the Choctaw Nation of Oklahoma, the Osage Nation, the Quapaw Tribe of Oklahoma, the Tunica-Biloxi Tribe of Louisiana, the Shawnee Tribe of Oklahoma, the Chickasaw Nation, Coushatta Tribe of Louisiana, the Muscogee (Creek) Nation, the Apache Tribe of Oklahoma, Mississippi Band of Choctaw Indians, the United Keetoowah Band of Cherokee Indians of Oklahoma, Alabama-Quassarte Tribal Town, Jena Band of Choctaw Indians, and the Caddo Nation, for which the Undertaking was believed to be in these Tribal Nations area of interest, and for which historic properties within the focused study area of the Undertaking are believed to have religious and cultural significance to these Tribal Nations; and

WHEREAS, in accordance with 36 CFR § 800.6 (a)(2), the Cherokee Nation, the Choctaw Nation of Oklahoma, the Muscogee (Creek) Nation, the Chickasaw Nation, and the United Keetoowah Band of Cherokee Indians of Oklahoma (Tribal Nations) are Consulting Parties in this PA (**Appendix A**); and

WHEREAS, in accordance with 36 CFR § 800.6 (c)(1), the USACE has invited the Arkansas Waterways Commission (AWC) to be a Signatory in this PA; and

WHEREAS, in accordance with 36 CFR § 800.6 (c)(2), the USACE has invited the Osage Nation and the Quapaw Tribe of Oklahoma (Tribal Nations) to be Invited Signatories in this PA; and

WHEREAS, the USACE has invited the Advisory Council on Historic Preservation (ACHP) to participate and the ACHP has chosen to participate pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, since 2015 the USACE has involved the public in this study by providing news releases to the local paper, holding public scoping meetings, and publishing the studies draft Integrated Feasibility Report and Environmental Assessment on the Little Rock Districts website for a public comment period; and

NOW, THEREFORE, the USACE, the SHPO, the AWC, the Osage Nation, the Quapaw Tribe of Oklahoma, and the ACHP agree that the proposed Undertaking shall be implemented and administered in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

## **STIPULATIONS**

USACE shall ensure the following measures are carried out:

### **I. Identification, Evaluation, Effect Determination, and Resolution**

- A. **Scope of Undertaking.** This PA shall be applicable to all activities associated with the construction of Alternative 1 of the Three Rivers Study. The initial APE shall be revised by the USACE in consultation with the SHPO and Tribal Nations to include all areas that will be directly affected by new construction, staging and access areas, flooding, new or extensions of existing levees or borrow areas, ecological mitigation features, and project maintenance activities that will result from this Undertaking.
- B. **Qualifications and Standards.** The USACE shall ensure that all work conducted in conjunction with this PA is performed in a manner consistent with the Secretary of Interior's "Standards and Guidelines for Archeology and Historic Preservation" (48 FR 44716-44740; September 23, 1983), as amended, the Secretary of the Interior's "Standards for the Treatment of Historic Properties" (36 CFR § 68), National Register Bulletin 15 "How to Apply the National Register Criteria for Evaluation" (NPS 1990), the requirements for reporting and fieldwork outlined in the Arkansas State Plan Appendices B: Guidelines for Cultural Resources Fieldwork and Report Writing in Arkansas revised January 01, 2010 (State Plan), and the Osage Nation's "National Historic Preservation Act Section 106 Consultation Procedures" (2017) as appropriate.
- C. **Definitions.** The definitions set forth in 36 CFR § 800.16 are incorporated herein by reference and apply throughout this PA.
- D. **Identification of Historic Properties.** Prior to the initiation of construction, the USACE shall make a reasonable and good faith effort to identify historic properties located within the APE. These steps may include, but are not limited to,

background research, consultation, oral history interviews, sample field investigations, and a cultural resource field survey. The level of effort for these activities shall be determined in consultation and concurrence with the SHPO and Tribal Nations. All draft reports of survey or site testing investigations shall be submitted to the SHPO and Tribal Nations for review and comment. If the SHPO's comments are not received by the USACE within thirty (30) calendar days of receipt, the reports and their recommendations shall be considered adequate by the SHPO. If the Tribal Nations' comments are not received by the USACE within thirty (30) calendar days of receipt, the USACE will contact the Tribal Nations by phone to elicit their intent to comment. Comments received by the USACE from the SHPO and Tribal Nations shall be addressed in the final reports, which shall be provided to all consulting parties. If no historic properties are identified in the APE, the USACE shall document this finding pursuant to 36 CFR § 800.11(d), and provide this documentation to the SHPO and Tribal Nations.

- E. Evaluation of National Register Eligibility. If historic properties are identified within the APE, the USACE shall determine their eligibility for the NRHP in accordance with the process described in 36 CFR § 800.4(c) and criteria established in 36 CFR § 60. All draft reports of NRHP site testing or other NRHP investigations shall be submitted to the SHPO and Tribal Nations for review and comment. If SHPO comments are not received by the USACE within 30 days of receipt, the reports or investigations and their recommendations shall be considered adequate by the SHPO. If Tribal Nations' comments are not received by the USACE within 30 days of receipt, the USACE will contact the Tribal Nations by phone to elicit their intent to comment. Comments received by the USACE from the SHPO or Tribal Nations shall be addressed in the final report, which shall be provided to all consulting parties. The determinations of significance shall be conducted in consultation and concurrence with the SHPO and Tribal Nations. Should the USACE, SHPO, and Tribal Nations agree that a property is or is not eligible, then such consensus shall be deemed conclusive for the purpose of this PA. Should the USACE, SHPO and Tribal Nations not agree regarding the eligibility of a property, the USACE shall obtain a determination of eligibility from the Keeper of the National Register pursuant to 36 CFR § 63. For historic properties found not eligible for the NRHP, no further protection or consideration of the site will be afforded for compliance purposes.

F. Assessment of Adverse Effects.

1. No Historic Properties Affected. The USACE shall make a reasonable and good faith effort to evaluate the effect of the Undertaking on historic properties in the APE. The USACE may conclude that no historic properties are affected by the Undertaking if no historic properties are present in the APE, or the Undertaking will have no effect as defined in 36 CFR § 800.16(i). This finding shall be documented in compliance with 36 CFR § 800.11(d), and the documentation (cultural resource report, per Stipulation I. D) shall be

provided to the SHPO and Tribal Nations. The USACE shall provide information on the finding to the public upon request, consistent with the confidentiality requirements of 36 CFR § 800.11(c) and Section 304 of the National Historic Preservation Act (NHPA).

2. Finding of No Adverse Effect. The USACE, in consultation with the SHPO, and Tribal Nations shall apply the criteria of adverse effect to historic properties within the APE in accordance with 36 CFR § 800.5. The USACE may propose a finding of no adverse effect if the Undertaking's effects do not meet the criteria of 36 CFR § 800.5(a)(1) or the Undertaking is modified to avoid adverse effects in accordance with 36 CFR § 68. The USACE shall provide to the SHPO and Tribal Nations documentation of this finding meeting the requirements of 36 CFR § 800.11(e) and the documentation (cultural resource report, per Stipulation I. D) shall be provided to the SHPO and Tribal Nations. The USACE shall maintain a record of the finding and provide information on the finding to the public upon request, consistent with the confidentiality requirements of 36 CFR § 800.11(c) and Section 304 of the NHPA.
3. Resolution of Adverse Effect. If the USACE determines that the Undertaking will have an adverse effect on historic properties as measured by criteria in 36 CFR § 800.5(a)(1), the USACE shall consult with the SHPO and Tribal Nations to resolve adverse effects in accordance with 36 CFR § 800.6 (a). In accordance with 36 CFR § 800.6 (a)(1), USACE shall notify the ACHP of the adverse effect finding by providing the documentation specified in 36 CFR § 800.11 (e).
  - a) For historic properties that the USACE, SHPO, and Tribal Nations agree will be adversely affected, the USACE shall:
    - (1) Consult with the SHPO to identify other individuals or organizations to be invited to become consulting parties. If additional consulting parties are identified, the USACE shall provide them copies of documentation specified in 36 CFR § 800.11(e) subject to confidentiality provisions of 36 CFR § 800.11(c) and Section 304 of the NHPA.
    - (2) Afford the public an opportunity to express their views on resolving adverse effects in a manner appropriate to the magnitude of the project and its likely effects on historic properties.
    - (3) Consult with the SHPO, Tribal Nations, and any additional consulting parties to seek ways to avoid, minimize or mitigate adverse effects.
    - (4) Prepare an appropriate mitigation plan (Prepared in consultation with the SHPO and Tribal Nations once an adverse effect determination is

reached), which describes mitigation measures the USACE proposes to resolve the Undertaking's adverse effects and provide this mitigation plan for review and comment to all consulting parties. All parties have fifteen (15) calendar days in which to provide a written response to the USACE. Once fifteen (15) calendar days has passed any received comments will be incorporated into the mitigation plan, then reviewed by the appropriate USACE approving official. Once approved and signed by the appropriate USACE approving official, the mitigation plan will be executed. Once the mitigation plan is fulfilled all consulting parties will be notified in writing.

- b) If the USACE, SHPO, and Tribal Nations fail to agree on how adverse effects will be resolved, the USACE shall request that the ACHP join the consultation in accordance with 36 CFR § 800.6 (b)(v).
- c) If the ACHP agrees to participate in the consultation, the USACE shall proceed in accordance with 36 CFR § 800.6 (b)(2).
- d) If, after consulting to resolve adverse effects, the ACHP, USACE, SHPO, or Tribal Nations determine that further consultation will not be productive, then procedures outlined in Stipulation IV should be followed.

## **II. Post Review Changes and Unanticipated Discoveries**

- A. Changes in the Scope of the Undertaking. If construction on the Undertaking has not commenced and the USACE determines that it will not conduct the Undertaking as originally coordinated, the USACE shall notify all consulting parties to this PA in writing of the change in scope, and provide maps illustrating the proposed changes to the Undertaking requesting comments within thirty (30) calendar days. If no comments by the SHPO are received within thirty (30) calendar days, USACE will assume the SHPO has no comments. If no comments are received by the Tribal Nations, the USACE will contact the Tribal Nations by phone and elicit their intent to comment. All comments received by the USACE from the SHPO and Tribal Nations shall be addressed in the final change of scope document and the Undertaking will proceed with the proposed changes.
- B. Unanticipated Discoveries of Cultural Resources. Pursuant to 36 CFR § 800.13(b)(3), if archaeological resources are discovered or unanticipated effects on historic properties are found after construction on an Undertaking has commenced, the USACE shall follow these steps:
  - 1. The Contractor will immediately notify the Lead Environmental Inspector ("EI") of an unanticipated discovery.
  - 2. The Lead EI will immediately direct a *Stop Work* order within a ninety (90) meter radius of the discovery to the Contractor's Site Foreman to flag or fence

off the archaeological discovery location and direct the Contractor to take measures to ensure site security. Any discovery made on a weekend or overnight hours will be protected until all appropriate parties are notified of the discovery. The Contractor will not restart work in the ninety (90) meter radius area of the find until USACE, in consultation and concurrence with the interested Tribal Nations and SHPO, has granted clearance.

3. The Lead EI will indicate the location and date of the discovery on the project plans and will provide the information to the USACE archaeologist.
4. Within twenty-four (24) hours of receipt of notification of the discovery, the USACE archaeologist shall:
  - a) Inspect the work site and determine the extent of the affected archaeological resource and ensure that construction activities have halted;
  - b) Ensure the area of the discovery is marked by means of flagging or fencing within the ninety (90) meter radius to protect the area from looting and vandalism; and
5. Notify by phone the appropriate Tribal Nations, SHPO, and ACHP.
6. The USACE archaeologist will conduct a preliminary assessment of the find to determine if the find is of historic or less than fifty (50) years of age and whether the cultural material represents an archaeological site of unknown or potential significance.
  - a) If the find is determined to not be a potentially significant archaeological site or TCP and receives concurrence by the interested Tribal Nations and SHPO, the Lead EI will notify the Contractor's Work Foreman to resume work.
  - b) If the USACE archaeologist determines the find represents an archaeological site of unknown or potential significance, the USACE will notify the interested Tribal Nations, SHPO, and ACHP within twenty-four hours (24) hours. Work will not resume at this location until USACE has provided authorization.
7. The USACE archaeologist will begin a more detailed assessment of the find's significance and the potential project effects in a manner consistent with National Register Bulletin 15 "How to Apply the National Register Criteria for Evaluation" (NPS 1990), and the requirements for reporting and fieldwork outlined in the Arkansas State Plan Appendices B: Guidelines for Cultural Resources Fieldwork and Report Writing in Arkansas revised January 01, 2010 (State Plan). The USACE archaeologist will dispatch an archaeological team to the site to determine the nature and extent of the archaeological

deposits; USACE will ensure that the team has full access to the required site area and be accommodated by the Contractor to complete this investigation within fourteen (14) calendar days. The USACE, interested Tribal Nations, or SHPO may extend this fourteen (14)-day calendar period one time (this time extension and its duration, must be approved by all parties) with the party requesting extension providing written notice to the other parties prior to the expiration date of the said fourteen (14)-day calendar period.

8. The USACE archaeologist will notify the interested Tribal Nations, SHPO, and ACHP of the archaeological team's findings and recommendations, whether the archaeological deposits are assessed not to be significant, and request approval from USACE for construction to proceed, or describe a proposed scope of work for evaluating the significance of the find and evaluating project effects.
9. Teleconferences may be held with interested Tribal Nations, SHPO, and the USACE archaeologist to discuss options and recommendations.
10. Upon request, SHPO, the interested Tribal Nations and Tribal representatives shall be able to visit the site with the USACE archaeologist. The SHPO, any interested Tribal Nations, or Tribal representatives may not be reimbursed by the USACE, or Contractor for the site visit.
11. If the archaeological deposits are determined to be a significant cultural resource and it is threatened by further project development, the USACE archaeologist, in consultation with interested Tribal Nations, SHPO, and Consulting Parties, will develop a cultural resource mitigation or treatment plan.
12. Upon direction by USACE, following consultation and concurrence by interested Tribal Nations, SHPO, and relevant consulting parties, the USACE archaeologist will implement the archaeological or other cultural mitigation or treatment plan.
13. A meeting, site visit, or teleconference may be held with USACE, interested Tribal Nations, SHPO, the USACE archaeologist, and Consulting Parties once the field investigation for site mitigation has been completed to review the work accomplished. The SHPO, any interested Tribal Nations, or Tribal representatives may not be reimbursed by the USACE, or Contractor for any meeting, or site visit.
14. Duration of any work stoppages will be contingent upon the significance, size, and depth of the identified archaeological resource(s) and consultation and concurrence amongst USACE, interested Tribal Nations, SHPO, the USACE archaeologist, and other appropriate parties will determine the appropriate measures to avoid, minimize, or mitigate any adverse effects to the site.

15. The USACE will seek and take into account the recommendations of the ACHP in resolving any disagreements that may arise regarding eligibility of a site to the National Register of Historic Places or resolution of adverse effects.

- C. Unanticipated Discoveries of Human Remains and/or Funerary Objects. In the event that human remains and/or funerary objects are found during an Undertaking's historic properties investigations, construction, operations, or maintenance activities, USACE will ensure that all Signatories, Invited Signatories, Consulting Parties, USACE personnel, and contractors involved in the discovery will comply with Arkansas Act 753 of 1991 (Arkansas Burial Law) and Arkansas Act 705 of 2011 (amendment to Arkansas law concerning funerary objects associated with human remains). If on federal land, the implementing regulations of NAGPRA, 43 CFR Part 10, shall be strictly followed. USACE will treat any human remains and/or funerary objects encountered during the Undertaking in a manner guided by the ACHP's *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects* (2007). In the event that human remains and/or funerary objects are discovered during construction on an Undertaking, the USACE will implement the following steps:
1. The Contractor will immediately notify the Lead EI of an unanticipated discovery of potential human remains and/or funerary objects.
  2. The Lead EI will immediately direct a *Stop Work* order within a ninety (90) meter radius of the discovery to the Contractor's Site Foreman to flag or fence off the discovery location and direct the Contractor to take measures to ensure site security. Any discovery made on a weekend or overnight hours will be protected until all appropriate parties are notified of the discovery. The Contractor will not restart work within the ninety (90) meter radius area of the find until USACE, in consultation and concurrence with the interested Tribal Nations and SHPO, has granted clearance.
  3. The Lead EI will indicate the location and date of the discovery on the Project plans by a notation of "sensitive avoidance area" and notify the USACE archaeologist.
  4. Within twenty-four (24) hours of receipt of notification of the discovery, the USACE archaeologist shall:
    - a) Inspect the work site and determine the extent of the affected human remains and/or funerary objects and ensure that construction activities have halted;
    - b) Ensure the area of the discovery is marked by means of flagging or fencing within the ninety (90) meter radius to protect the area from looting and vandalism.

5. At all times human remains and/or funerary objects must be treated with the utmost dignity and respect. Human remains and/or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed. No photographs are to be taken of the human remains.
6. The USACE archaeologist will immediately notify the Tribal Nations, SHPO, and ACHP of the human remains and/or funerary objects, as well as the local police, and appropriate Medical Examiner's/Coroner's Office.
7. The contractor will provide an opportunity for local law enforcement and, if necessary, a representative of the Medical Examiner's/Coroner's Office, to visit and inspect the site to determine whether the site constitutes a crime scene.
  - a) If it is declared a criminal matter, the USACE archaeologist will have no further involvement and the decision to declare it a *Cleared Site* for construction will be made by the appropriate legal authorities.
  - b) If the find is determined not to be a criminal matter, USACE will consult with the SHPO and descendants or other interested parties if it can be determined that the human remains and/or funerary objects are not American Indian.
  - c) If the find is more likely American Indian, the USACE archaeologist, in consultation with interested Tribal Nations and SHPO, will comprehensively evaluate the potential to avoid and/or minimize the Undertaking's effects to the human remains and/or funerary objects. If no feasible avoidance plan can be developed to allow the human remains and/or funerary objects to stay in place, in consultation with interested Tribal Nations and SHPO, USACE will engage in the development of a site-specific disinterment/re-interment plan. Until there is evidence to the contrary, all human remains will be treated as potentially American Indian with appropriate Tribal Nation notification and consultation.
  - d) Human remains and/or funerary objects will be left in place and protected from further disturbance until a site-specific work plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the Tribal Nations.
  - e) Upon request, SHPO, the Tribal Nations, Tribal representatives or descendants shall be able to visit the site with the USACE archaeologist. The SHPO, any interested Tribal Nations, or Tribal representatives may not be reimbursed by the USACE, or Contractor for the site visit.

### **III. Curation and Disposition of Recovered Materials, Records, and Reports**

- A. Curation. The USACE shall ensure that all archeological materials and associated records, which result from identification, evaluation, and treatment efforts conducted under this PA, are accessioned into a University of Arkansas Collections Facility in accordance with the standards set by the University of Arkansas and 36 CFR § 79, except as specified in Stipulation II for human remains and/or funerary objects. Archeological items and materials from privately owned lands shall be returned to their owners upon completion of analyses required for Section 106 compliance under this PA.
- B. Reports. The USACE shall provide copies of the final technical report of the cultural resource survey and/or mitigation to the Signatories, Invited Signatories, and Consulting Parties. All Signatories, Invited Signatories, and Consulting Parties shall withhold site location information, or other data that may be of a confidential or sensitive nature pursuant to 36 CFR § 800.11(c).

### **IV. Dispute Resolution**

Should any Signatory, Invited Signatory, or Consulting Party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, USACE shall consult with such party to resolve the objection. If USACE determines that such objection cannot be resolved, USACE will:

- A. Forward all documentation relevant to the dispute, including the USACE's proposed resolution, to the ACHP. The ACHP shall provide USACE with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, USACE shall prepare a written response that takes into account and addresses any timely advice or comments regarding the dispute from the ACHP, Signatories, Invited Signatories, and Consulting Parties, and provide them with a copy of this written response. USACE will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, USACE may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, USACE shall prepare a written response that takes into account and addresses any timely comments regarding the dispute from the Signatories, Invited Signatories, and Consulting Parties to the PA, and provide them and the ACHP with a copy of such written response.
- C. USACE's responsibility to carry out all other actions subject to the terms of this PA that are not subject of the dispute remain unchanged.

## **V. Amendments**

This PA may be amended when such an amendment is agreed to in writing by all Signatories, Invited Signatories, and Consulting Parties. The amendment will be effective on the date a copy signed by all the Signatories, Invited Signatories, and Consulting Parties is filed with the ACHP.

## **VI. Periodic Review of the PA**

USACE shall notify by email, and/or make arrangements for a teleconference with, the Signatories, Invited Signatories, and Consulting Parties each year for the purposes of updating each/all on the current status of the Three Rivers Feasibility Study. The Signatories, Invited Signatories, and Consulting Parties agree to undertake negotiation of a renewal PA at the start of year nine (9) following execution of the PA.

## **VII. Termination**

If any Signatory, or Invited Signatories to this PA determine that its terms will not or cannot be carried out, that party shall immediately consult with the other Signatories and/or Invited Signatories to attempt to develop an amendment per Stipulation V, above. If within thirty (30) days (or another time period agreed to by all Signatories and Invited Signatories) an amendment cannot be reached, any Signatory or Invited Signatories may terminate the PA upon written notification to the other Signatories and/or Invited Signatories.

Once the PA is terminated, and prior to work continuing on the Undertaking, USACE must either (a) execute a new agreement pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. USACE shall notify the Signatories and Invited Signatories as to the course of action it will pursue.

## **VIII. Anti-Deficiency Clause**

The stipulations of this PA are subject to the provisions of the Anti-Deficiency Act. If compliance with the Anti-Deficiency Act alters or impairs the USACE's ability to implement the stipulations of the PA, the USACE will consult according to the amendment and termination provisions found at Stipulations V and VII of this agreement.

## **IX. Term of this Programmatic Agreement**

The USACE intends the term of this PA to be in effect for ten (10) years from the date of execution of this agreement, unless terminated pursuant to Stipulation VII.

**EXECUTION AND IMPLEMENTATION** of this PA evidences that the USACE has taken into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity to comment.

**SIGNATORIES** include the USACE Little Rock District, Arkansas State Historic Preservation Officer, the Arkansas Waterways Commission, the Osage Nation (Invited Signatory), the Quapaw Tribe of Oklahoma (Invited Signatory), and the Advisory Council on Historic Preservation. Separate signature pages for each agency follow.

**USACE LITTLE ROCK DISTRICT**



Date: 29 Jan 18

Colonel Robert G. Dixon  
District Engineer

**EXECUTION AND IMPLEMENTATION**

**SIGNATORIES** include the USACE Little Rock District, Arkansas State Historic Preservation Officer, the Arkansas Waterways Commission, the Osage Nation (Invited Signatory), the Quapaw Tribe of Oklahoma (Invited Signatory), and the Advisory Council on Historic Preservation, with separate pages for each agency provided.

**ARKANSAS STATE HISTORIC PRESERVATION OFFICER**



Date: 2-1-18

Stacy Hurst  
Arkansas State Historic Preservation Officer

**EXECUTION AND IMPLEMENTATION**

**SIGNATORIES** include the USACE Little Rock District, Arkansas State Historic Preservation Officer, the Arkansas Waterways Commission, the Osage Nation (Invited Signatory), the Quapaw Tribe of Oklahoma (Invited Signatory), and the Advisory Council on Historic Preservation, with separate pages for each agency provided.

**ARKANSAS WATERWAYS COMMISSION**



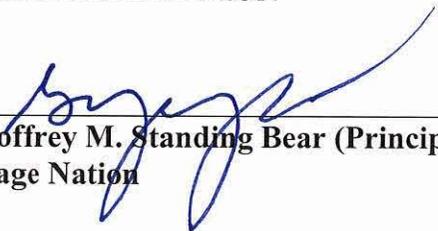
Date: 1/29/18

**Deidre Smith**  
**Arkansas Waterways Commission**

**EXECUTION AND IMPLEMENTATION**

**SIGNATORIES** include the USACE Little Rock District, Arkansas State Historic Preservation Officer, the Arkansas Waterways Commission, the Osage Nation (Invited Signatory), the Quapaw Tribe of Oklahoma (Invited Signatory), and the Advisory Council on Historic Preservation, with separate pages for each agency provided.

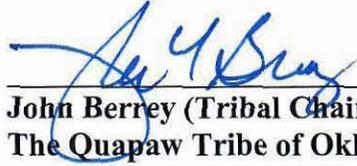
**THE OSAGE NATION**

  
\_\_\_\_\_  
Date: 1-27-18  
**Geoffrey M. Standing Bear (Principal Chief)**  
**Osage Nation**

**EXECUTION AND IMPLEMENTATION**

**SIGNATORIES** include the USACE Little Rock District, Arkansas State Historic Preservation Officer, the Arkansas Waterways Commission, the Osage Nation (Invited Signatory), the Quapaw Tribe of Oklahoma (Invited Signatory), and the Advisory Council on Historic Preservation, with separate pages for each agency provided.

**THE QUAPAW TRIBE OF OKLAHOMA**



Handwritten signature of John Berrey in blue ink.

Date: 1/29/18

**John Berrey (Tribal Chairman)**  
**The Quapaw Tribe of Oklahoma**

**EXECUTION AND IMPLEMENTATION**

**SIGNATORIES** include the USACE Little Rock District, Arkansas State Historic Preservation Officer, the Arkansas Waterways Commission, the Osage Nation (Invited Signatory), the Quapaw Tribe of Oklahoma (Invited Signatory), and the Advisory Council on Historic Preservation, with separate pages for each agency provided.

**ADVISORY COUNCIL ON HISTORIC PRESERVATION**

*John M. Fowler*

Date: 3/2/18

**John M. Fowler**  
**Advisory Council on Historic Preservation**

## APPENDIX A

The following Federally Recognized Tribal Nations have responded with an interest in this study and are Consulting Parties to this PA:

### **The Choctaw Nation of Oklahoma**

Ms. Lindsey D. Bilyeu, Senior Compliance Review Officer  
Historic Preservation Department  
P.O. Box 1210  
Durant, OK 74702

### **The Cherokee Nation**

Ms. Elizabeth Toombs, Special Projects Officer  
Tribal Historic Preservation Office  
P.O. Box 948  
Tahlequah, OK 74465-0948

### **The Chickasaw Nation**

Ms. Karen Brunso, Tribal Historic Preservation Officer  
P.O. Box 1548  
Ada, OK 74821

### **The Muscogee (Creek) Nation**

Mrs. Corain Lowe-Zepeda, Tribal Historic Preservation Officer  
Cultural Preservation Office  
P.O. Box 580  
Okmulgee, OK 74447

### **The United Keetoowah Band of Cherokee Indians**

Ms. Karen Pritchett, Tribal Historic Preservation Officer  
P.O. Box 746  
Tahlequah, OK 74465

## Attachment A

### **Study Purpose**

The US Army Corps of Engineers (USACE) has prepared an Integrated Feasibility Report and Environmental Assessment (IFR-EA) that presents the results of a feasibility study to recommend for Congressional approval, an alternative that would lead to long-term environmentally sustainable navigation on the McClellan-Kerr Arkansas River Navigation System (MKARNS), prevent long term lost navigation during repairs, and address the continuing short term maintenance costs of the existing structures. Section 216, Flood Control Act of 1970 (Public Law 91-611) authorizes a study due to significantly changed physical and economic conditions in the Three Rivers study area. The study will evaluate and make recommendations for long-term sustainable navigation on the MKARNS. Section 216 of the Flood Control Act of 1970 (Public Law 91-611) states:

*"The Secretary of the Army, acting through the Chief of Engineers, is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due to significantly changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest."*

The study fits into the overall concept of the authorization to conduct an integrated and coordinated approach to locating and implementing opportunities for long term sustainable navigation. The non-federal sponsor for this study is the Arkansas Waterways Commission. This document has been prepared to provide background information supporting coordination of a Programmatic Agreement to ensure that Section 106 requirements will be fulfilled for the studies Environmental Assessment. Information is presented on the proposed project, the Area of Potential Effects (APE), cultural resources in the study area, investigations that have been conducted to identify historic properties, and potential project effects on these properties.

### **Description of Existing Project**

The study area is located in southeastern Arkansas along the White, Arkansas and Mississippi Rivers in Arkansas and Desha Counties, and is characterized by flat bottomlands and low gently

dissected inter-stream areas underlain by Quaternary alluvium and terrace deposits (Dunn and Riggs 1988).

The study area's general location is rich with pre-contact and historic occupation. Prehistoric Native American occupation, prior to European settlement, can be documented chronologically through six periods (Dunn and Riggs 1988).

**Table 1. Prehistoric Culture History of the Study Area.**

Paleo-Indian Period	9500-8000 B.C.
Dalton Period	8000-7000 B.C.
Early to Middle Archaic	7000-3000 B.C.
Late Archaic	3000-750 B.C.
Woodland Period	1000 B.C. –A.D. 900
Mississippian Period	A.D. 700 to Contact

Historic European use of the general study area can be divided into four general periods (Bennett et al. 1989b):

1. French and Spanish Occupation: Early accounts indicate there were four Quapaw villages in or near the study area in the late 1600's (Bennett et al. 1989b). The French and Spanish occupation lasted from 1680 to 1800. This period was characterized by a few trading posts, small population, and little development.
2. American Settlement: American settlement lasted from 1800 to 1840. This period was characterized by population growth and some development. Montgomery's tavern at Arkansas Post served for militia musters.
3. Civil War: The Civil War period was from 1861 to 1865. A Civil War battle occurred at Arkansas Post in 1863. The area also contained an army camp and a freedman's camp at the end of the Civil War.
4. Steamboat Trade: The steamboat trade period lasted from 1865 to 1927. During this period, there were at least 12 steamboat wrecks that occurred at or near Montgomery Point.

A review of the Arkansas Archeological Survey's (AAS) Automated Management of Archeological Sites Data in Arkansas (AMASDA) database and other sources revealed several prior terrestrial and submerged cultural resources surveys and investigations either near or within the proposed study area (Bennett et al. 1989a; Bennett et al. 1989b; Branam 2003; Buchner and Krivor 2001; Dunn and Riggs 1987; 1988; James et al. 2006). Although the review identified

previous surveys near or transecting the study area, it is important to note large tracts of unsurveyed land also exist within the study area. A review of the Arkansas Historic Preservation Program's Structure Database revealed no previously identified buildings, structures, or objects within the study area.

Alternative 1, and up to a kilometer around it (focused study area), was examined for the presence of any known cultural resources. Five archaeological sites (3AR0194, 3AR0195, 3AR0196, 3DE0009, and 3DE0277) have been recorded within the study area of Alternative 1 (Table 2); however, the eligibility of these resources for inclusion in the NRHP is undetermined at this time. The recorded sites were reported to the Arkansas Archaeological Survey (who recorded them) and were not discovered as the result of a cultural survey. Additional research revealed the Arkansas River and the historic Arkansas-White River cut off within the study area were water routes of the Trail of Tears. Additional coordination and consultation will be required to determine if there are any associated features (landmarks) remaining that could be impacted. The Trail of Tears, as an historic event and cultural resource refers to forced relocations of Native American Nations in the United States following the Indian Removal Act of 1830 that was enacted through Congress by President Andrew Jackson. The Choctaw, Creek, Chickasaw, Seminole, and Cherokee tribes, collectively known as the Five Civilized Tribes, were forced out of their lands to accommodate the increasing influx of white settlers and the continued westward growth of the United States. By 1840, nearly all native peoples in the southeast had relocated west of the Mississippi to the land designated as the "Indian Territory." Several different routes were taken to transport the tribes from the departure points in the east to resettlement areas in modern Oklahoma. Collectively, these paths over land and water have become known as the Trail of Tears (Rodriquez et al. 2017).

Located within the focused study area is a historic cutoff structure built in 1963 which is considered an historical architectural resource. National Register eligibility of this historic cutoff structure is undetermined at this time. A containment structure, running east/west of the historic cut off structure, was built along with two weirs named, "Melinda" and "Owens" between 1989 and 1993. Not being 50 years in age, these structures and weirs (as a whole) need to be analyzed to determine if they have achieved significance since their construction (NHRP Criterion Consideration G).

With the exception of the Memorial Unit and Otosouy Unit of the Arkansas Post National Memorial (outside the focused study area), there are no properties known to be eligible for listing

on the National Register of Historic Places within the focused study area.

The primary considerations concerning cultural resources are threats from direct impacts to intact terrestrial archeological sites and indirect impacts to historic structures from new construction and improvements. Portions of the study area get inundated periodically, but overall the study area has not been developed. Several geomorphic studies have been undertaken either near or within the focused study area. One such study (Smith 1988), focused on the Arkansas/White River Cutoff Containment Area and found that, “lateral migration of the rivers in the study area has most certainly destroyed many archaeological sites that occurred in the area. On the other hand, those sites which were not destroyed are probably preserved beneath at least six feet of historic sediment” (Smith 1988:5). Well drained areas on natural levees adjacent to abandoned channels and courses, bluffs, and other elevated topographic positions in previously undisturbed areas would be likely locations to find archeological sites. The relatively recent age of the landforms of the project area preclude the possibility of the occurrence of intact cultural resources greater than 800-1,000 years old (Smith 1988).

Even with river movement through the focused study area (including areas being inundated), there is a moderate to high potential for encountering cultural resources. There are no proposed actions within marine environments and therefore no potential to impact submerged cultural resources.

**Table 2. Cultural Resources Located within the Focused Study Area.**

Resource	Type	Component	Description	NR Status
3AR0194	Archaeological	Prehistoric	A mound with an associated ceramic	Undetermined
3AR0195	Archaeological	Prehistoric	A mound and associated ceramics and bits of fired clay	Undetermined
3AR0196	Archaeological	Prehistoric	A mound and associated lithics, ceramics and bits of fired clay	Undetermined
3DE0009	Archaeological	Prehistoric	Ceramics	Undetermined
3DE0277	Archaeological	Prehistoric	A possible hammerstone and possible lithic core	Undetermined
N/A	Structure	Historic	Cut off structure (Built 1963)	Undetermined
N/A	Structure	Modern	Containment Structure and Weirs (Built 1989-1993)	Undetermined

**Recommended Plan: Alternative 1**

Alternative 1 consists of a newly constructed containment structure at an elevation of 157 feet above mean sea level (ft amsl). This structure would be approximately 2.5 miles long. The new

structure would begin on natural high ground just south and west of the existing Melinda Structure located on the south side of Owens Lake. It would continue east and cross the Melinda Headcut south of the existing Melinda Structure. From there, it would head northeast and connect to the existing containment structure north of J. Smith Lake. It continues to follow the existing containment alignment terminating at the existing Historic Cutoff Containment Structure. This alternative has an additional opening at the Historic Cutoff. The optimal width of the opening will be determined during design, but will be at elevation 145 ft amsl regardless of the width. The new opening reduces, or at least does not increase, the maximum head differential across the isthmus allowing USACE to control the location of future overtopping events and decreases the duration of the head differential, which provides for safe navigation. It will decrease isthmus velocities. Further, the opening will restore the function of Webb Foot Lake and reduce erosion on the east side of the lake, which has existing nick points that may lead to future head cutting. In addition to the containment structure, the existing Melinda Structure would be demolished in place (the debris will be pushed into the deep scour hole at the top of the head cut) as part of Alternative 1. This reduces the turbulence of the water against the toe of the new containment structure increasing its resiliency. Removal of the structure would also allow Owens Lake to reconnect to its former southern limb, returning open water function to the oxbow element of the flooded bottomland hardwood ecosystem that has been severely degraded by the construction, operation and maintenance of the MKARNS. Additionally, the Owen's weir will have an opening placed in the existing structure to allow water to drain. The opening will be between 10 and 30 feet wide and match the elevation or be slightly lower than the Owen's lake bottom elevation. Overall, the current hydrology in the surrounding bottomland hardwood forest will not be changed. Navigation would continue with no change in the current operation of the MKARNS.

### **Cultural Resources and Area of Potential Effects**

The activities associated with the proposed undertaking include all new construction, improvements, and maintenance activities related to the proposed Three Rivers project. The APE includes the maximum horizontal footprint of all areas of direct impacts to include, but not limited to, construction of staging areas and access roads, construction of the new containment structure, extensions of borrow areas, demolition of the Melinda Weir, etc.

Cultural resource surveys have not been performed for much of the surrounding region and only a small portion of the APE has been previously surveyed. There are two previous cultural surveys

that intersect with the focused study area, none of which identified any cultural resources. The recommended plan does not overlap any known archaeological sites based on background research; however, the majority of the recommended plan has not been previously culturally surveyed for historic properties.

Based on the current information for the proposed construction activities associated with Alternative 1, there is a potential to affect historic properties. These effects consist of direct impacts from earth moving and excavation activities related to construction. The USACE recommends intensive cultural resources investigations to identify and evaluate any historic properties within proposed construction areas. The scope of these investigations will be determined in concert with the Arkansas State Historic Preservation Officer and appropriate Native American Tribes in accordance with the Programmatic Agreement for this project.

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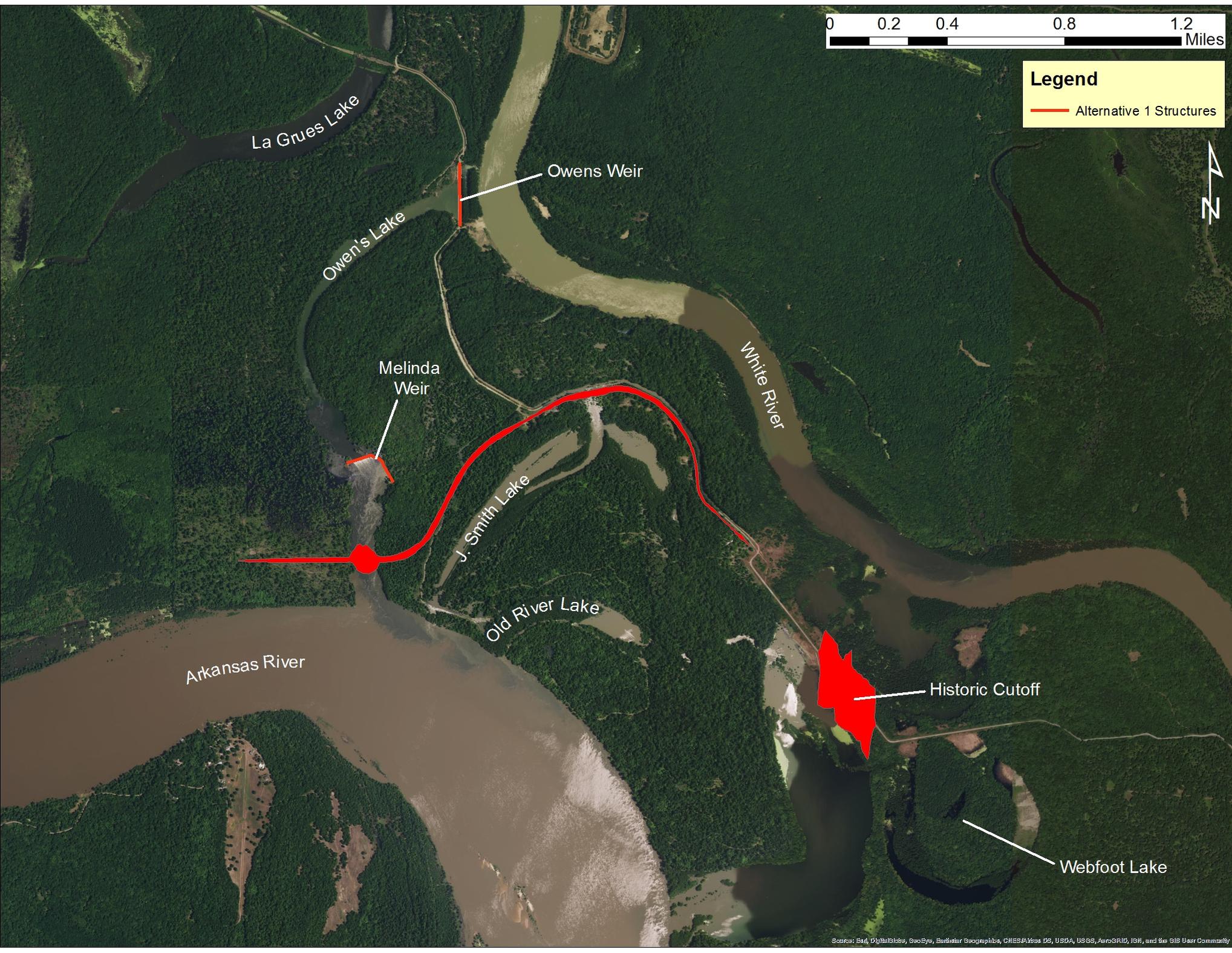
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**Legend**

- Alternative 1 Structures



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