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ENVIRONMENTAL ASSESSMENT
St. Francis Basin Maintenance
State Line Ditch 29 Levee Maintenance
Mississippi County, Arkansas

1.0 INTRODUCTION. The U.S. Army Corps of Engineers (USACE), Memphis District (MVM), proposes to reshape approximately 3 miles of the degraded State Line Ditch 29 levee in Mississippi County, Arkansas (Figure 1) to meet USACE Levee Safety Standards. Enlargement of a levee adjacent to the Stateline Ditch 29 was authorized by the Flood Control Act of 1936, P.L. 74-678, as amended, but the construction did not occur in accordance with the authorization. The levee, though neglected, has provided some degree of protection from flooding since prior to 1936. This environmental assessment (EA) has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality's Regulations (40 CFR 1500-1508), as reflected in the USACE Engineering Regulation 200-2-2. This EA provides sufficient information on the potential adverse and beneficial environmental effects to allow the MVM District Commander to make an informed decision on the appropriateness of an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

1.1 Project Action. The project would reshape a 3-mile section of the State Line Ditch 29 Levee (Figure 1) to meet the USACE Levee Safety Standards of a major levee. The local sponsor would then provide minor maintenance on the levee. The *Final Environmental Impact Statement, St. Francis River Basin Project, Arkansas and Missouri* (1973) considered activities associated with ditch maintenance. However, the proposed action requires an additional right-of-way that was not previously considered under NEPA. The new right-of-way extends approximately 100 feet landward of the existing levee for the length of the project, totaling approximately 36.4 acres. The maintenance work would include an approximate 50-foot berm between the top bank of State Line Ditch 29 and the toe of the levee, reshaping the existing levee, and filling gaps and degraded areas of the levee to maintain the previously authorized levee. Clearing of trees and brush would occur along the levee and the required 15-foot vegetation-free zone on the land-side of the levee. The levee, berm and vegetation-free zone would be maintained in perpetuity by regular mowing. The 50-foot berm would increase slope stability of the levee and ditch bank and would be maintained by the mowing of vegetation, providing access to the ditch for regular maintenance which is not currently possible. Six culverts currently provide drainage from adjacent agriculture fields through the existing levee via a series of small, unregulated ditches. These culverts would be replaced with culverts that meet USACE Levee Safety Standards, and provide similar drainage capabilities as the existing culverts. Gravel would be placed on the levee crown as part of the project to provide a 15-foot access road for inspections, routine maintenance, and emergency access. Gravel road construction and repair of sinkholes and levee slides would not impact wetlands or require tree clearing.

The *St. Francis Basin Project, Arkansas and Missouri, Final Impact Statement* (1973), included herein by reference, considered maintenance to include sediment removal from the ditch and vegetative clearing along the levee; therefore, compensatory mitigation for impacts that would occur within the existing right-of-way has been completed and is currently in the process of being transferred to the Arkansas Game and Fish Commission (AGFC). However, the *St. Francis Basin Project, Arkansas and Missouri, Final Impact Statement* (1973) did not consider the additional

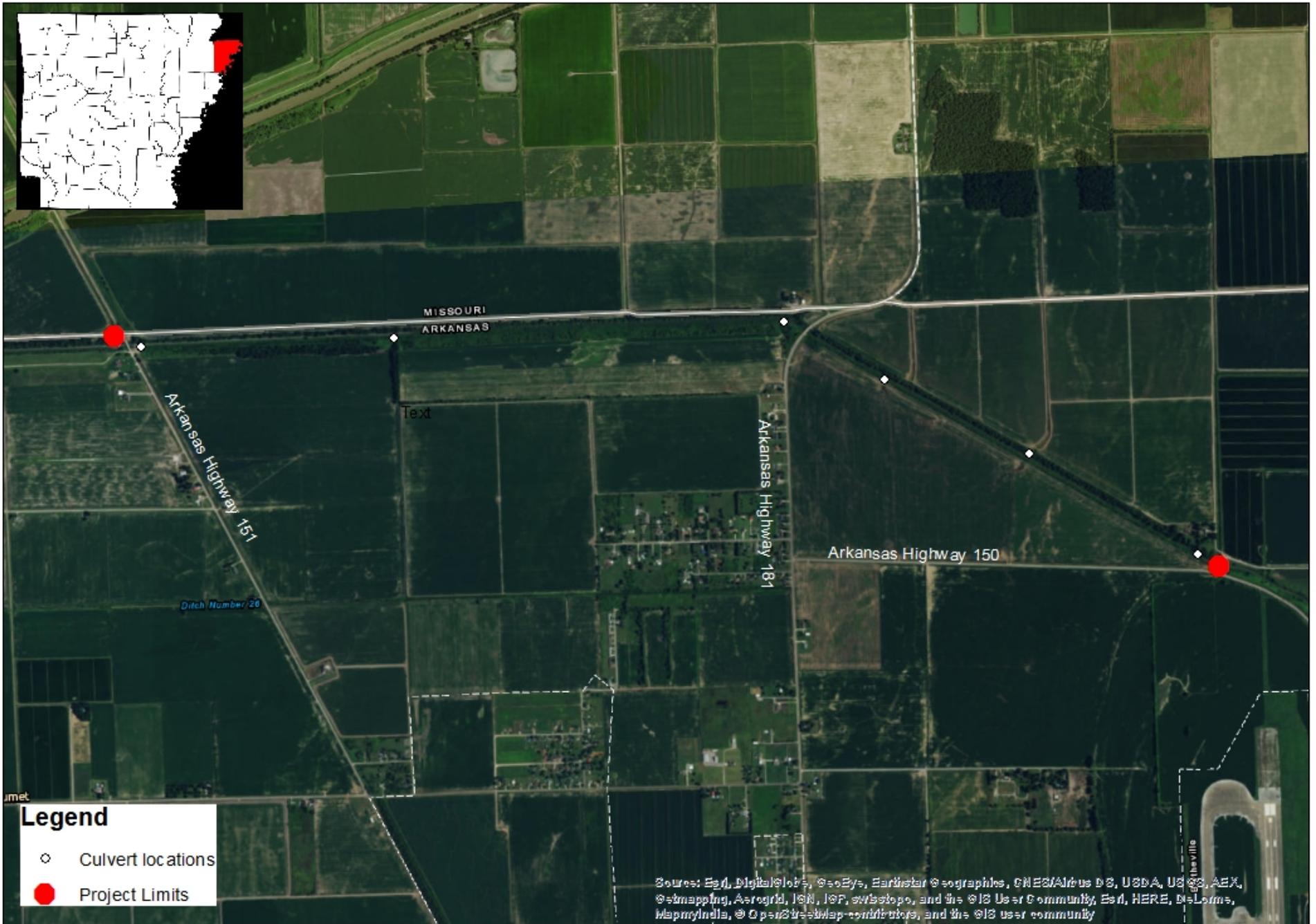


Figure 1. Aerial of proposed Stateline Ditch 29 Levee Maintenance Project showing culvert locations, project limits, and wooded areas expected to be impacted. Culvert replacements would offset by approximately 50-100 feet up or downstream of the existing culverts to increase stability.

right-of-way required to complete the proposed action. It was determined by the USACE that the majority of the approximately 36.4 acres of additional right-of-way exists as non-wet agricultural land. However, riparian buffer strip habitat loss of 3 acres would be expected with the proposed action. This acreage is not forested wetland and compensatory mitigation is being proposed which would offset the loss in habitat value.

Generally, the culvert replacements would require a backhoe or other equipment to excavate a trench through the levee to remove the existing culvert; new culverts would be offset but replaced in proximity to existing drainage ditches to avoid major ditch modifications. Existing culverts to be removed range between 32-inch and 42-inch corrugated metal pipe (CMP) and would be replaced with reinforced concrete pipe (RCP) that would convey a similar amount of water while meeting USACE Levee Safety requirements. Inlet and outlet structures would include reinforced concrete with R-90 or R-200 riprap at the ends of the culvert pipes with riprap extending into the channel (similar to the existing conditions) to prevent erosion.

1.2 Purpose And Need For The Action. The State Line Ditch 29 Levee which is part of the Big Lake and St. Francis River East Levee System does not meet the current USACE levee safety standards and cannot be properly maintained by the local sponsor. The dimension and condition of the levee currently prevents mowing and prevents occasional sediment removal from the channel. Culverts within the existing levee do not meet USACE Levee Safety standards and are subject to erosion causing potential damage to surrounding lands. Flood conditions may lead to a bank failure, which could result in damage to residential and agricultural properties, and significant economic damages.

1.3 Authority For The Action. The renovation of the State Line Ditch 29 Levee and associated mitigation is authorized and would be funded as part of the St. Francis River Basin Maintenance portion of the Mississippi River and Tributaries (MR&T) Project. The St. Francis Basin Project was authorized by the Flood Control Act of 1936, P.L. 678, 74th Congress which amended the Mississippi River and Tributaries (MR&T) Act of May 15, 1928. The MR&T Project is authorized by the Flood Control Act of 15 May 1928, as amended. More specifically, the Belle Fountain Ditch and Tributaries project is authorized by the Flood Control Act of 1968.

1.4 Prior Reports. *Final Environmental Impact Statement, St. Francis River Basin Project, Arkansas and Missouri* (1973). Describes a comprehensive plan for "...channel improvements, levees, control structures, and pumping plants in southeast Missouri and northeastern Arkansas." This EIS also determined compensatory mitigation for fish and wildlife losses from activities anticipated in that project.

Flood Control Mississippi River and Tributaries, St. Francis Basin Project, General Design Memorandum No. 111, Belle Fountain Ditch and Tributaries, Arkansas and Missouri (1980 and 1984). Determined flood control works were still warranted and recommended modifications to best serve national and local interests.

Flood Control Mississippi River and Tributaries, St. Francis Basin Project, Relocation of Facilities, State Line Ditch 29 and Belle Fountain Ditch, Feature Design Memorandum No. 359 (1984).

“...covering the relocation of railroad, state and county roads and utilities as necessitated by the improvements of State Line Ditch 29...”

A Cultural Resources Survey, Testing, and Geomorphic Examination of Ditches 10, 12, and 29, Mississippi County, Arkansas (1987). Comprehensive archaeological survey of the south bank of State Line Ditch 29 determined that no significant sites exist or are likely to be impacted by proposed work.

House Document 159, 71st Congress, Second Session (1929). Detailed extensive efforts by locals to implement construction of a headwater diversion system and flood control works.

Senate Document No. 11, 90th Congress, 1st Session. Showed local expenditures of \$154,200,000 for construction and maintenance in the St. Francis Basin.

Flood Control Act of 1936, as amended. Authorized construction of levees, channel diversions, and channel enlargements for the purpose of controlling headwater flooding in the Basin.

House Document No. 308, 88th Congress, Second Session. Detailed features of the project that are authorized and also provided for mitigation measures.

1.5 Public Concerns. Providing interior drainage and flood protection is a significant public concern. Proper maintenance on the existing levee and ditch is not possible due to current conditions. Continued degradation of the State Line Ditch 29 Levee could cause levee failure and flood the surrounding lands, risking human life and property.

2.0 ALTERNATIVES TO THE ACTION

Three alternatives were considered to accomplish the renovation of the State Line Ditch 29 Levee: 1) no-action; 2) renovate the existing levee to create a major levee that is maintainable, replace 4 existing culverts with culverts that meet USACE Levee Safety Standards and permanently remove 2 culverts re-routing flow through new drainage ditches; or 3) renovate the existing levee to create a major levee that is maintainable, replace all 6 existing culverts with culverts that meet USACE Levee Safety Standards.

2.1 Alternative 1 – No-action alternative. The no-action alternative would result in the continued degradation of the State Line Ditch 29 Levee as no project features would be constructed. Continued erosion of the culverts from heavy rains and during flood conditions would eventually lead to bank failure. Sinkholes and levee slides would worsen and continue to endanger the levee and the areas it protects. Additionally, woody vegetation encroachment would continue to increase the risk of seepage through the levee and prevent proper inspections and maintenance. Therefore, the MVM has determined that this alternative would not address the problems associated with the unmaintainable levee, and the levee would continue to not meet the USACE Levee Safety Standards. Therefore, this alternative was removed from further consideration.

2.2 Alternative 2 – Renovate the existing levee to create a levee that is maintainable, replace 4 existing culverts with culverts that meet USACE Levee Safety Standards and permanently remove 2

culverts re-routing flow through new drainage ditches. This alternative would include the renovation of the existing levee to meet current USACE Levee Safety Standards. A 50-foot berm would be created between the top bank of the State Line Ditch 29 and the levee toe for slope stability and to provide access to the ditch for maintenance. Four CMP culverts ranging in size from 32 to 42 inches would be replaced with 32-inch to 42-inch RCP culverts to meet USACE Levee Safety Standards. To reduce the risk of culvert failure, 2 existing culverts would be removed and flow would be re-routed with newly constructed drainage ditches. Environmental impacts would include the clearing of approximately 3 acres of riparian buffer strips along drainage swales/ditches. The MVM determined that constructing new drainage ditches was not authorized pursuant to statutory authority, which removed this alternative from further consideration.

2.3 Alternative 3 – Renovate the existing levee to create a levee that is maintainable and replace all 6 existing culverts with culverts that meet USACE Levee Safety Standards. This alternative, as described under section “1.1 Project Action”, would comply with the USACE Levee Safety Program requirements, maintain drainage from landside agriculture fields to the State Line Ditch 29, and create integrity and stability of the State Line Ditch 29 Levee by constructing uniform slopes, removing sinkholes, and providing access for inspections and maintenance. All six CMP culverts ranging in size from 32 to 42 inches would be replaced with 48-inch RCP culverts to meet USACE Levee Safety Standards. Environmental impacts would not differ from Alternative 2. MVM has determined that this is the preferred alternative.

All factors considered, Alternative 3 is the most practicable solution for flood risk reduction. Therefore, this is the preferred alternative for the project assessed in this EA. Compensatory mitigation is discussed in section “6.0 Mitigation”, and would consist of the restoration of approximately 6 acres of prior converted or non-wet agricultural land to forested hardwood habitat. All factors considered, Alternative 3 is the least environmentally damaging alternative and most practicable solution for flood risk reduction. Therefore, this is the preferred alternative for the project assessed in this EA.

3.0 AFFECTED ENVIRONMENT

3.0.1 Environmental Setting. The proposed project begins approximately 3 miles upstream (east) of the Big Lake National Wildlife Refuge and Wildlife Management Area; however, land use adjacent to and surrounding the proposed project area is almost entirely in agricultural production with several drainage ditches traversing the terrain and emptying into State Line Ditch 29 through culverts. The ditch was channelized a number of years ago to alleviate flooding in the region in connection with the St. Francis Basin Project noted above. The State Line Ditch 29 Levee is primarily covered by brush and vine species such as poison ivy, green briar, pokeweed, Japanese honeysuckle, goldenrod, ragweed, and sumac. Some small trees, mostly locust, have also grown up on the existing levee and within the channel banks which generally consist of a steep slope from the top of the levee directly into the channel. Two riparian buffer strips, which were determined not to be wetlands, totaling approximately 3 acres exist within the proposed right of way addition. One of the buffer strips is approximately 1900 feet long with a width of approximately 25-30 feet on either side of the ditch. The other buffer strip is approximately 100 feet long with a width of approximately 50 feet on each side. Dominant tree species at both sites include sugarberry, willow oak, and shellbark and bitternut hickory, but they do not meet the soil or hydrology criteria set forth

in the 2010 *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region*.

3.0.2 Climate. Mississippi County, Arkansas, has a humid, warm-temperate climate characterized by moderately cold winters, warm or hot summers, and generally abundant rainfall. The average annual temperature for Mississippi County is 58.5 degrees Fahrenheit, which is higher than the Arkansas average temperature of 54.7 degrees Fahrenheit. Total annual precipitation for Mississippi County averages 47.2 inches, which is slightly higher than the Arkansas average of 45.2 inches. In contrast, annual snowfall average of 4.8 inches within Mississippi County is less than the annual state average of 12.7 inches.

3.0.3 Geology. The soil composition adjacent to the State Line Ditch 29 Levee includes Sharkey clay soils on the floodside of the levee, and Dubbs silty loam soils adjacent to the landside of the levee with Basket fine silty loam soils further out into the landside farmed fields. All three soil types are fertile, but Dubbs and Basket soils are well drained and more suited for agriculture uses. Sharkey soils are poorly drained and more suitable for wetland vegetation such as bottomland hardwoods.

3.1 RELEVANT RESOURCES

This section contains a description of those resources that would be impacted by the project. The important resources described in this section and Table 1 are those recognized by laws, executive orders, regulations, and other standards of National, state, or regional agencies and organizations; federally recognized tribes; technical or scientific agencies, groups, or individuals; and the general public. The following resources have been considered and found not to be affected by the alternative under consideration: forested wetlands, freshwater marshes, freshwater lakes, state-designated scenic streams, prime and unique farmlands, aquatic resources/fisheries, cultural resources, municipal facilities, municipal utilities, roadways, recreation, aesthetics, socio-economic conditions, environmental justice, and water quality.

Table 1: Relevant Resources			
Resource	Institutionally Important	Technically Important	Publicly Important
Wildlife	Fish and Wildlife Coordination Act of 1958, as amended and the Migratory Bird Treaty Act of 1918	They are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Threatened and Endangered Species	The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940.	U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Environmental Protection Agency, and state resource agencies cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.	The public supports the preservation of rare or declining species and their habitats.
Hydrology	Clean Water Act of 1977, Fish and Wildlife Coordination Act	State and federal agencies recognize value of fisheries and good water quality. The National and state	Environmental organizations and the public support the

		standards are established to assess water quality	preservation of water quality and the desire for clean drinking water.
Air Quality	Clean Air Act of 1963	State and Federal agencies recognize the status of ambient air quality in relation to the National Ambient Air Quality Standards.	Virtually all citizens express a desire for clean air.

3.1.1 Wildlife

Existing Conditions: Typical wildlife species that would be expected or have been observed within the project area include coyotes, deer, raccoons, opossums, rabbits, squirrels, mice, rats, bats, songbirds, neo-tropical migratory and wading birds, raptors, turtles, snakes, and amphibians.

3.1.2 Threatened and Endangered Species

Existing Conditions: USACE does not expect the proposed action to impact threatened or endangered species. On September 14, 2016, the U. S. Fish and Wildlife Service (USFWS) concurred with the USACE determination that the proposed actions were not likely to adversely affect *Potamilus capax* (*P. capax*) and that the project was outside of the zone of consultation for the Indiana bat (*Myotis sodalis*) and the northern long-eared bat (*M. septentrionalis*) based on survey work resulting in no observations of threatened or endangered species.

3.1.3 Hydrology

Existing Conditions: The flow of inlet ditches landside of the existing State Line Ditch 29 levee is dependent on rainfall. These ditches are often dry or stagnant in times of low precipitation. Fields in the area have been graded to drain into ditches that directly drain into Stateline Ditch 29. Stateline Ditch 29 rarely reaches a stage high enough to back-flood into adjacent fields, and culverts in the levee have flap gates to prevent that type of flooding, although some flap gates may be missing or non-functional.

3.1.4 Air Quality

Existing Conditions: The project area is in attainment for all air quality standards.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Wildlife

Future Conditions with No Action: Without implementation of the action, the wildlife resources within the project area are expected to remain as noted in Existing Conditions.

Future Conditions with the Action: With implementation of the proposed action, impacts to wildlife resources would include the clearing of approximately 3 acres of a riparian buffer strip along

drainage swales/ditches, and regular maintenance of the proposed State Line Levee and Ditch 29 to include mowing of the levee and removal of sediment accumulations from the ditch that would reduce the capacity of the ditch. Disturbance and noise from project-related activities would temporarily displace most wildlife species from the project work areas. Project impacts are not expected to adversely impact the general population of wildlife species within the region as better habitat is available, and being avoided, on the right descending bank of the ditch.

4.2 Threatened and Endangered Species

Future Conditions with No Action: Without implementation of the action, threatened and endangered species within the project area are expected to remain as noted in Existing Conditions.

Future Conditions with the Action: The work proposed in this EA is not expected to impact any federally threatened or endangered species. In September 2016, USACE, USFWS, and AGFC biologists conducted freshwater mussel surveys upstream and downstream of all culverts proposed for replacement to determine the presence or likely absence of the fat pocketbook mussel (*Potamilus capax*) or any other listed species. During this survey, USACE, USFWS, and AGFC did not collect or observe listed species. On September 14, 2016, USFWS concurred with the USACE determination that the proposed actions were not likely to adversely affect *P. capax*, and that the project was outside of the zone of consultation for the Indiana bat (*Myotis sodalis*) and the northern long-eared bat (*M. septentrionalis*).

4.3 Hydrology

Future Conditions with No Action: Without implementation of the action, the project area would continue to exist in a state of disrepair, and USACE Levee Safety requirements would not be met. A state of disrepair may include bank erosion and/or culvert failure on State Line Ditch 29 Levee which could potentially cause a bank failure that could impact hydrology landside of the levee by flooding all or a portion of the surrounding lands and drainage ditches with turbid waters heavily laden with sediment. Sediment within the floodwaters could raise elevations within the surrounding lands and fill in drainage ditches altering the flow within the area.

Future Conditions with the Action: With implementation of the proposed action, replacement of the State Line Ditch 29 Levee culverts would allow for similar drainage from landside fields while maintaining the stability of State Line Ditch 29 Levee and meeting USACE Levee Safety Standards.

4.4 Air Quality

Future Conditions with No Action: Without implementation of the action, no change in air quality would occur.

Future Conditions with the Action: With implementation of the action, the project-related equipment would produce small amounts of engine exhaust during construction activities. Also, burning of cleared trees and woody debris may occur in localized areas; however, temporary, minor impacts to air quality would be localized to the project area, and would not affect area residents. The equipment to be used is a mobile source, thus the project is exempt from air quality permitting

requirements. Although air emissions would not require a permit, best management practices would be used throughout the construction to minimize air pollution.

4.6 Hazardous, Toxic, and Radioactive Waste (HTRW)

The USACE is obligated under Engineer Regulation 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all HTRW contamination within the vicinity of the action. A record search has been conducted of the Environmental Protection Agency's (EPA) EnviroMapper Web Page (<http://maps.epa.gov>). The web site was checked for any superfund sites, toxic releases, and hazardous waste sites within the vicinity of the project area. MVM biologists conducted site inspections of the length of State Line Ditch 29 Levee and the area used to stockpile material dredged from the Setback Levee Ditch. The environmental records search and site survey conducted did not identify the presence of any hazardous or suspected hazardous wastes in the project area. As a result of these assessments, it was concluded that the probability of encountering HTRW is low. If any hazardous waste/substance is encountered during the construction activities, the proper handling and disposal of these materials would be coordinated with the Arkansas Division of Environmental Quality.

4.7 Cumulative Impacts

The Council on Environmental Quality's regulations (40 CFR 1500-1508) implementing the procedural provisions of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) define cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7)." The majority of the St. Francis Basin has been previously manipulated to provide drainage of the land for agricultural purposes. This proposed project would have little/no additional negative impacts to the overall system or ecosystem in the Basin.

5.0 COORDINATION

This environmental assessment is being coordinated with the following agencies and stakeholders: Arkansas State Historic Preservation Officer (AR SHPO) (concurrence received October 24, 2016), the Quapaw Tribal Historic Preservation Officer (THPO) (concurrence received November 8, 2016), AGFC, Arkansas Department of Environmental Quality, St. Francis Levee and Drainage District, U.S. Environmental Protection Agency, USFWS, federally recognized tribes, and other interested parties. Coordination with these agencies would continue, as required, throughout the planning and construction phases of the project and construction of the compensatory mitigation.

6.0 MITIGATION

A total of approximately 3 acres of riparian buffer strip would be impacted by the proposed project. As this is not forested wetland, and models such as the Habitat Evaluation Procedures are not meant to measure impacts to wildlife within a small, isolated area, USACE proposes a

7.2 Clean Water Act

The proposed action is part of the MR&T project which is authorized by the Flood Control Act of 1928, as amended. The project action to replace the existing State Line Ditch 29 Levee culverts is considered maintenance of an existing flood control facility which is covered under Nationwide Permit #31, which is described below:

NWP 31. Maintenance of Existing Flood Control Facilities. Discharges of dredged or fill material resulting from activities associated with the maintenance of existing flood control facilities, including debris basins, retention/detention basins, levees, and channels that: (i) were previously authorized by the Corps by individual permit, general permit, or 33 CFR 330.3, or did not require a permit at the time they were constructed, or (ii) were constructed by the Corps and transferred to a non-Federal sponsor for operation and maintenance. Activities authorized by this NWP are limited to those resulting from maintenance activities that are conducted within the "maintenance baseline," as described in the definition below. Discharges of dredged or fill materials associated with maintenance activities in flood control facilities in any watercourse that have previously been determined to be within the maintenance baseline are authorized under this NWP. To the extent that a Corps permit is required, this NWP authorizes the removal of vegetation from levees associated with the flood control project. This NWP does not authorize the removal of sediment and associated vegetation from natural water courses except when these activities have been included in the maintenance baseline. All dredged material must be placed in an area that has no waters of the United States or a separately authorized disposal site in waters of the United States, and proper siltation controls must be used.

The project does not trigger any new permit requirements set forth in the conditions noted in the Arkansas Nationwide Permit Regional Conditions for all Nationwide Permits. This EA serves as the maintenance baseline for the State Line Ditch 29 Levee Rehabilitation. If future project construction exceeds this baseline, additional coordination would be required.

8.0 CONCLUSION

The project involves rehabilitation of approximately 3 miles of the State Line Ditch 29 Levee, including tree clearing within 15 feet of each toe of the levee and repairing levee slides and sinkholes to conform to USACE Levee Safety requirements. In addition, replacement of existing culverts is critical for the success of this renovation. Gravel would be placed on the levee crown as a part of the project to provide a 15-foot access road for inspections, routine maintenance, and emergency access.

Approximately 3 acres of riparian buffer strip would be impacted by the action. Compensatory mitigation for these impacts is proposed at a 2:1 ratio, resulting in approximately 6 acres of restoration to occur concurrently with a larger land acquisition to enhance the value of the 6 acres from an ecological perspective. A detailed mitigation plan would be developed once land is acquired. An interagency review team comprised of representatives of Arkansas Game and Fish Commission, Arkansas Department of Environmental Quality, U.S. Environmental Protection Agency, and USFWS would review and provide input on the mitigation plan.

This office has assessed the environmental impacts of the proposed action, and has determined that with implementation of the mitigation, the work is expected to have only minor impacts on wildlife, hydrology, and air quality. Impacts to air quality would be temporary, and would be expected to return to existing conditions after completion of the project action. The project would have no impacts upon forested wetlands, freshwater marshes, freshwater lakes, state-designated scenic streams, prime and unique farmlands, aquatic resources/fisheries, cultural resources, municipal facilities, municipal utilities, roadways, recreation, aesthetics, socio-economic conditions, or environmental justice. Upon completion of the compensatory mitigation, no significant adverse impacts would occur to forested wetlands, wildlife, threatened and endangered species, hydrology, air quality, or the human environment. Therefore, an environmental impact statement would not be required.

9.0 PREPARERS

This draft EA and associated FONSI were prepared by Andrea Carpenter, with cultural resources information provided by Dr. Robert Dunn, archeologist. For additional information, contact Andrea Carpenter at (901) 544-0817, by email at Andrea.L.Carpenter@usace.army.mil, or by mail at USACE Memphis District, Attn: Andrea Carpenter, 167 North Main St., B202, Memphis, TN 38103-1894.

Appendix 1. Coordination Completed

Arkansas State Historic Preservation Officer concurrence requests and responses
Quapaw and Shawnee State Historic Preservation Officer concurrence requests and responses
U.S. Fish and Wildlife Service Endangered Species Act concurrence request and response



Reply to
Attention of:

DEPARTMENT OF THE ARMY
MEMPHIS DISTRICT CORPS OF ENGINEERS
167 NORTH MAIN STREET B-202
MEMPHIS, TENNESSEE 38103-1894

September 28, 2016

Environmental Compliance Branch
Regional Planning and Environmental Division South

Ms. Frances McSwain
Deputy State Historic Preservation Officer
Arkansas Historic Preservation Program
1500 Tower Building
323 Center Street
Little Rock, Arkansas 72201

Dear Ms. McSwain:

Memphis District, U.S. Army Corps of Engineers, proposes to improve and re-shape approximately three miles of an existing spoil bank adjacent to State Line Ditch 29 at the northern boundary of Mississippi County, Arkansas. The project begins at Highway 151 and ends at County Road 631 (see Enclosures 1a & 1b). All construction would take place south of State Line Ditch 29 in Mississippi County. The proposed improvements would create a proper Corps levee from a massive spoil pile created by the original ditch excavation and periodic maintenance dredging since the 1950s (Enclosures 2b & c). The spoil pile functions as a levee, but does not meet USACE levee Safety Standards. Proximity of the spoil pile to the ditch has made it impossible for the local levee district to maintain it causing the entire levee section to fail USACE inspections. The proposed levee improvement project is needed by the St. Francis Basin Levee District for future levee maintenance and the maintenance of a vegetation-free zone required by USACE Levee Safety Standards.

The proposed work has two main features: replacement of the six existing corrugated metal pipe culverts with reinforced concrete pipe culverts and the reshaping of the spoil pile into a proper levee with a crown that could be driven by vehicles. Detailed engineering plans are included with this letter. The new levee will generally be wider and lower than the existing spoil pile. Corps project engineers estimate that the toe of the levee will extend an additional 100 feet landward of State Line Ditch 29. The main impact to this landward extension will be from tracked vehicles and other vehicular traffic. Additional ditching will be confined to small ditches needed for the installation and off-setting of new culverts within the levee in areas that have been previously disturbed by agriculture practices.

A search of the AMASDA database revealed no recorded sites in this area of potential effect. Two previous archaeological surveys have been sponsored by Memphis District, one in 1982 by New World Research (AMASDA #1613) that covered portions of the north and south banks of Ditch 29, and a larger more comprehensive 1986 survey of the south bank by Mid-Continental Research Associates that produced a final 1987 report entitled *A Cultural Resources*

Survey, Testing, and Geomorphic Examination of Ditches 10, 12, and 29, Mississippi County, Arkansas (MCRA Report 86-5, AMASDA #542). Coordination with Ms. Lela Donat, Registrar at the Arkansas Archeological Survey, on September 7, 2016, revealed that for some reason neither survey has been plotted on the AMASDA GIS interface, even though both reports are in AMASDA. Fortunately, Memphis District has both the MCRA report and the original MCRA quad sheets showing their survey corridor in our project area (see Enclosure 2a). Our current project area was examined by MCRA during their intensive survey of segments 3 and 4 for the 1986 Ditch 29 channel enlargement. Their 300' wide survey corridor south of the spoil pile, on the left descending bank of Ditch 29, encompasses the present project area and includes a 200' buffer. No cultural resources were recorded in our current project's area of potential effect. Field site 29A1 shown on the MCRA quad sheet was determined to be a modern trash dump and was never given a state site number by the AAS registrar.

The 1982 survey report by New World Associates noted on page 60 that "as a natural drainage Pemiscot Bayou has a higher potential for cultural resources than a man-made ditch... soils within the (Ditch 29 channel enlargement) impact corridor are basically clays ... soil types not generally favored for prehistoric or historic settlement." Based on the geomorphic study by Dr. Margaret Guccione in the 1987 MCRA report, Lafferty and his co-authors concluded on page G-11 that "Ditch 29 should be cleared for construction." In general, our proposed 2016 project area has been heavily impacted by decades of dredged spoil deposition and channel enlargement. Consequently, there is little potential for intact cultural deposits in the relatively narrow project corridor. The project area was visited by our District Archaeologist on September 23, 2016. Captioned photographs taken during this site visit appear in Enclosure 3 (Figures 1-12).

Based on this information, we have determined that the proposed improvement of the State Line Ditch 29 levee (see the draft engineering plans in Enclosure 4) will have no effect to historic properties. We request your concurrence per 36 CFR 800.4 within thirty days. For additional information please contact our District archaeologist, Dr. Robert Dunn, at 901-544-0706, or by email at Robert.A.Dunn@usace.army.mil. Thank you for your help and cooperation with this project.

Sincerely,



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

Enclosures



THE DEPARTMENT OF ARKANSAS
HERITAGE

Asa Hutchinson
Governor

Stacy Hurst
Director

Arkansas Arts Council

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Heritage Commission

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Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars
Cultural Center

Old State House Museum

October 10, 2016

Mr. Edward Lambert
Memphis District Corps of Engineers
167 North Main Street B-202
Memphis, TN 38103-1894

RE: Mississippi County – General
Section 106 Review – COE-MEM
Proposed Undertaking: State Line Ditch 29 Spoil Bank Re-shaping
AHPP Tracking Number: 96685

Dear Mr. Lambert:

This letter is in response to your inquiry regarding properties of archeological, historical, or architectural significance in the area of the proposed referenced project. The staff of the Arkansas Historic Preservation Program (AHPP) has reviewed records pertaining to the area in question.

The records check found two previously recorded cultural resources (3MS0612 & 3MS0441) located near or within the proposed undertaking. Due to this, we recommend that a cultural resources survey be conducted in the areas of direct impacts. Also, as State Line Ditch 29 was constructed in conjunction with the Blytheville Air Force Base runway extension, this cultural resource should be recorded and evaluated for the National Register of Historic Places (NRHP).

Tribes that have expressed an interest in the area include: the Quapaw Tribe of Oklahoma (Mr. Everett Bandy) and the Shawnee Tribe of Oklahoma (Ms. Kim Jumper). We recommend that they be consulted in accordance with 36 CFR § 800.2 (c)(2).

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Tim Dodson of my staff at 501-324-9784.

Sincerely,

Frances McSwain
Deputy State Historic Preservation Officer

cc: Mr. Joshua Bright, COE-MEM
Dr. Andrea Hunter, Osage Nation
Dr. Ann Early, Arkansas Archeological Survey



ARKANSAS HISTORIC
PRESERVATION PROGRAM



National Historic
Preservation Act 1966-2016



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info@arkansaspreservation.org

website:
www.arkansaspreservation.com

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Reply to
Attention of:

DEPARTMENT OF THE ARMY
MEMPHIS DISTRICT CORPS OF ENGINEERS
167 NORTH MAIN STREET B-202
MEMPHIS, TENNESSEE 38103-1894

October 17, 2016

Environmental Compliance Branch

Ms. Frances McSwain
Deputy State Historic Preservation Officer
Arkansas Historic Preservation Program
1100 North Street
Little Rock, Arkansas 72201

Dear Ms. McSwain:

Thank you for your letter dated October 10, 2016 on the Stateline Ditch 29 Spoil Bank Reshaping Project (AHPP Tracking Number 96685). On October 14 our staff archaeologist, Dr. Robert Dunn, discussed the project with Mr. Tim Dodson of your staff. This letter and the enclosed maps (Enclosures 1 and 2) follow up that enlightening conversation.

Sites 3MS441 and 3MS612 both fall outside this project's area of potential effect (APE) and will not be impacted in any way. 3MS441 is on the right descending bank (north side); and as we described in our letter of September 28, 2016, all work will take place on the opposite bank, within and just south of the existing spoil bank on the south side of Ditch 29. 3MS612, recorded by Mid-Continental Research Associates (MCRA), is located on Pemiscot Bayou to the southeast of the eastern terminus of the project and will also not be impacted (see Enclosure 1).

Regarding your recommendation for an archaeological survey of areas of direct impacts, this survey has already been accomplished in the 1986 survey of the south bank by Mid-Continental Research Associates (MCRA) and reported on in their final 1987 report entitled *A Cultural Resources Survey, Testing, and Geomorphic Examination of Ditches 10, 12, and 29, Mississippi County, Arkansas* (MCRA Report 86-5, AMASDA #542). The current project area was examined by MCRA during their intensive survey of segments 3 and 4 for the Ditch 29 channel enlargement project. Their 300' wide survey corridor south of the spoil pile, on the left descending bank of Ditch 29, encompasses the present project's APE. Please note that we have confirmed with retired District Archaeologist Jimmy McNeil (COR on the 1986 MCRA task order) that the MCRA survey took place landward (south) of the spoil bank (see Enclosure 2). No cultural resources were recorded in the area that comprises our current project's APE.

With respect to your comments on the linkage between State Line Ditch 29 and the Blytheville Air Force Base runway extension, it is our opinion that the channelized portion of Ditch 29 in this project's APE is not a stand-alone historic property, eligible for the inclusion in the National Register (NR). Periodic ditch enlargement projects since the 1950s have severely compromised the integrity of the original ditch. An NR eligibility study of the runway extension,

presumably under NR criterion A, would best be performed by your office or the Arkansas Archaeological Survey's Station Archaeologist at Arkansas State University in Jonesboro.

Finally, we appreciate your recommendation to consult with the Quapaw and the Shawnee Tribes under 36 CFR800.2(c)(2). We shall do so in the very near future. However, the presence of traditional cultural properties or sacred sites that might also be eligible for the National Register of Historic Places appears unlikely in the highly disturbed, very narrow corridor comprising this project's APE.

As discussed in our September 28 letter, work on and within the spoil bank has no potential to affect historic properties. Impacts to the land surface from tracked vehicles will be confined to a narrow corridor approximately 100' south of the spoil bank. This area has been surveyed with negative results. We have determined, therefore, that the proposed improvement of the State Line Ditch 29 levee will have no effect to historic properties. We request your concurrence within thirty days. For additional information please contact District Archaeologist, Dr. Robert Dunn, at 901-544-0706, or by email at Robert.A.Dunn@usace.army.mil. Thank you for your help and guidance on this and future Memphis District projects.

Sincerely,



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

Enclosures



THE DEPARTMENT OF ARKANSAS
HERITAGE

Asa Hutchinson
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Stacy Hurst
Director

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Heritage Commission

Arkansas State Archives

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars
Cultural Center

Old State House Museum

October 24, 2016

Mr. Edward Lambert
Memphis District Corps of Engineers
167 North Main Street B-202
Memphis, TN 38103-1894

RE: Mississippi County – General
Section 106 Review – COE-MEM
Proposed Undertaking: State Line Ditch 29 Spoil Bank Re-shaping
AHPP Tracking Number: 96685.01

Dear Mr. Lambert:

This letter is in response to your letter dated October 17, 2016. Given the additional information you have provided and the telephone conversation that occurred on October 14, 2016 between Dr. Robert Dunn, archaeologist for the Memphis District of the Army Corps of Engineers (COE-MEM) and Tim Dodson of the Arkansas Historic Preservation program (AHPP), we agree that the proposed undertaking will have a no effect to historic properties as the previously recorded cultural resources are located outside the area of potential effect (APE) and that the area has previously been inventoried.

However, the AHPP still is of the opinion that the link between State Line Ditch 29 and Blytheville Air Force Base needs to be assessed; although this assessment can be conducted as part of another proposed undertaking or through independent research. It is important that this assessment is conducted prior to any major alterations or disturbances effect broad appearance or function of State Line Ditch 29.

Tribes that have expressed an interest in the area include: the Quapaw Tribe of Oklahoma (Mr. Everett Bandy) and the Shawnee Tribe of Oklahoma (Ms. Kim Jumper). We recommend that they be consulted in accordance with 36 CFR § 800.2 (c)(2).

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Tim Dodson of my staff at 501-324-9784.

Sincerely,

Frances McSwain
Deputy State Historic Preservation Officer

cc: Mr. Joshua Bright, COE-MEM
Dr. Andrea Hunter, Osage Nation
Dr. Ann Early, Arkansas Archeological Survey



ARKANSAS HISTORIC
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Preservation Act 1966-2016



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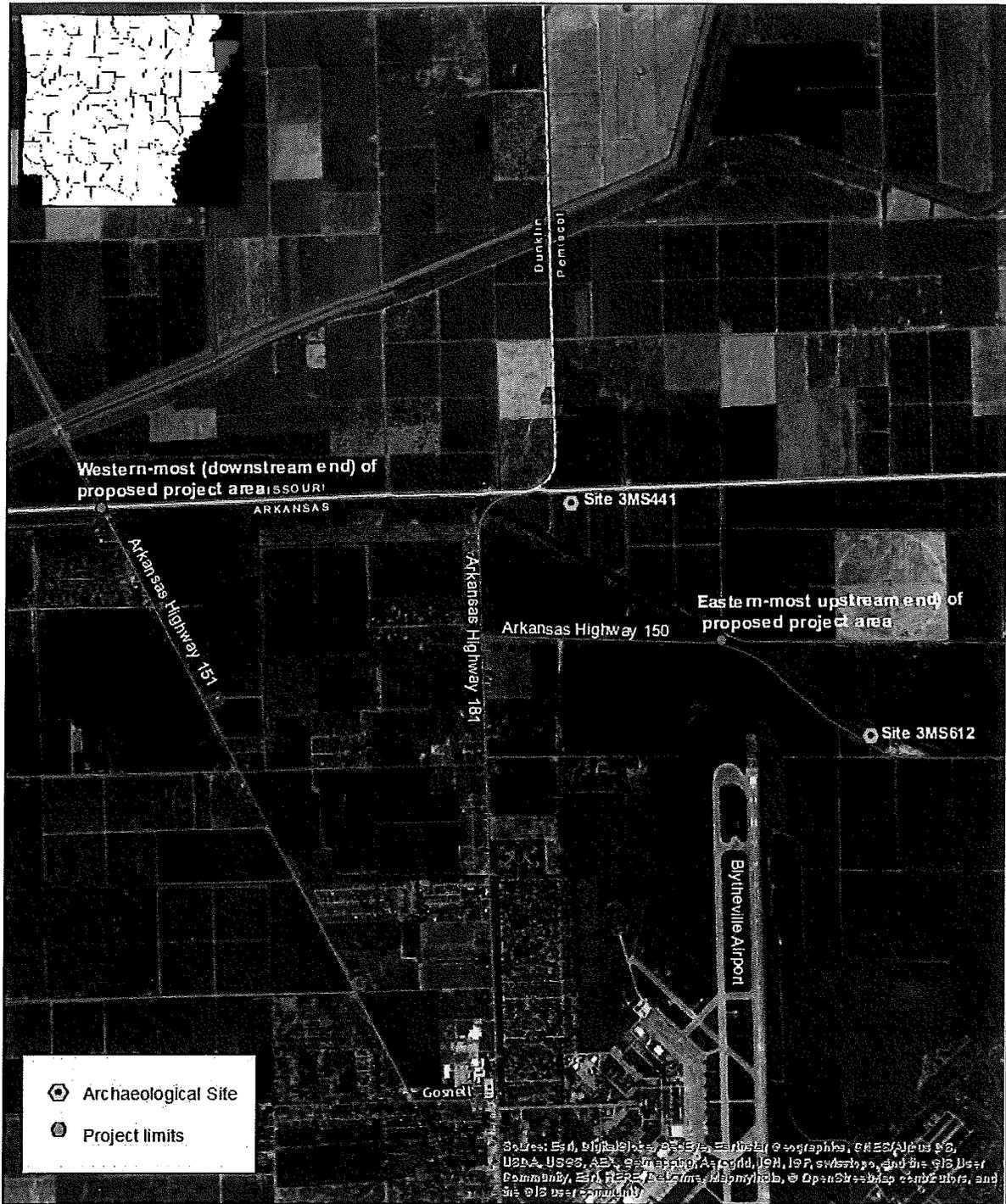
e-mail:

info@arkansaspreservation.org

website:

www.arkansaspreservation.com

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Aerial map of Stateline Levee 29 proposed project area. Work would include a setback of the existing spoil bank, reshaping of slopes, and replacement of culverts to bring the spoil bank up to USACE Levee Safety Standards and to allow for required maintenance. All work would occur on the left descending (south) bank of Stateline Ditch 29 in Mississippi County, Arkansas.



Enclosure 1

QUAPAW TRIBE OF OKLAHOMA

P.O. Box 765
Quapaw, OK 74363-0765

(918) 542-1853
FAX (918) 542-4694

November 8, 2016

Mr. Robert Dunn
District Archaeologist
Department of Army
Memphis District Corps of Engineers
167 North Main Street B-202
Memphis, Tennessee 38103-1894

Re: Cultural Resources Survey Testing and Geomorphic Examination of Ditches 10, 12, and 29, Mississippi County, Arkansas

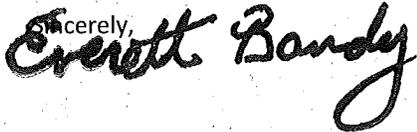
Dear Mr. Dunn,

The Quapaw Tribe Historic Preservation Office has received and reviewed the information for the cultural resources survey for Ditches 10, 12, and 29, Mississippi County, Arkansas and has determined that this project is not likely to adversely effect properties of cultural or sacred significance to the Quapaw Tribe.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d) (6) (A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Quapaw Tribe has vital interests in protecting its historic and ancestral cultural resources. We do not anticipate that this project will adversely impact any cultural resources or human remains protected under the NHPA, NEPA, or the Native American Graves Protection and Repatriation Act. If however, artifacts or human remains are discovered during project construction, we ask that work cease immediately and that you contact the Quapaw Tribe Historic Preservation Office.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Quapaw Tribe on this matter.

Sincerely,


Everett Bandy
Tribal Historic Preservation Officer
Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363
(w) 918-238-3100



DEPARTMENT OF THE ARMY
MEMPHIS DISTRICT CORPS OF ENGINEERS
167 NORTH MAIN STREET B-202
MEMPHIS TN 38103-1894

September 13, 2016

Environmental Compliance Branch
Regional Planning and Environmental Division South

Mr. Melvin Tobin
U.S. Fish and Wildlife Service
Arkansas Field Office
110 S. Amity Road
Suite 300
Conway, AR 72032

Dear Mr. Tobin:

The U.S. Army Corps of Engineers (USACE) is proposing a maintenance project on a 3-mile section of levee along Stateline 29 Ditch between Arkansas State Highway 151 and County Road 631 in Mississippi County, Arkansas. The proposed project work would occur along the left descending bank and would include a levee setback along with culvert maintenance. The project would replace and offset Culverts 1, 3, 4, and 6, and remove Culverts 2 and 5 (see enclosure). The elimination of the two culverts would require rerouting flow through new drainage ditches along the land-side of the levee. Final plans and specifications are not complete; therefore, some minor changes may occur prior to the proposed construction.

Freshwater mussel surveys were conducted, with the participation of Mr. Jason Phillips of your staff, to determine the presence or absence of *Potamillus capax* or other threatened or endangered mussels within the proposed project area. Although *P. capax* is known to occur further downstream, there are no records of *P. capax* existing within the proposed project vicinity, and none were observed or collected during the survey. No other federally protected mussels or other federally listed species were observed in the project vicinity.

Pursuant to Section 7 of the Endangered Species Act, as amended, USACE has determined that this proposed action may affect, but is not likely to adversely affect *P. capax*, and is outside of the zone of consultation for threatened and endangered bat species. If you have any questions, please contact Andrea Carpenter at (901) 544-0817 or Andrea.L.Carpenter@usace.army.mil.

Sincerely,

A handwritten signature in black ink that reads "Edward P. Lambert".

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

Enclosure
cf: Jason Phillips



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

110 South Amity Road, Suite 300

Conway, Arkansas 72032

Tel.: 501/513-4470 Fax: 501/513-4480



September 14, 2016

U.S. Army Corps of Engineers
Memphis District
Edward P. Lambert
Chief, Environmental Compliance Branch
167 North Main Street, Room B-202
Memphis, Tennessee 38103-1894

Dear Mr. Lambert:

The Fish and Wildlife Service (Service) has received your mussel survey report and endangered species effects determination regarding construction of a setback levee and replacement/removal of culverts along Stateline 29 Ditch in Mississippi, County, Arkansas. A representative of our office joined your staff during surveys of the areas that will potentially be impacted by these actions.

The endangered Fat Pocketbook (*Potamilus capax*) occurs throughout much of the St. Francis River basin in northeast Arkansas. Qualitative mussel surveys of areas to be impacted revealed a lack of this or any other listed species within the area of impact for this proposed project. Your staff determined that this proposed project may affect, but is not likely to adversely affect the Fat Pocketbook. We concur with this determination and acknowledge the work area is outside the consultation zone identified by our office for the federally listed Northern Long-eared Bat (*Myotis septentrionalis*) and Indiana Bat (*M. sodalis*).

If you have any questions, please contact Jason_phillips@fws.gov or Jason Phillips at (870) 503-1101.

Sincerely,

Melvin L. Tobin
Field Supervisor