



DEPARTMENT OF THE ARMY

VICKSBURG DISTRICT, CORPS OF ENGINEERS
4155 CLAY STREET
VICKSBURG, MISSISSIPPI 39183-3435

REPLY TO
ATTENTION OF:

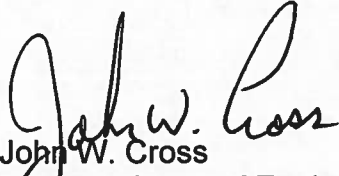
Regional Planning and
Environment Division South

03 DEC 2014

A draft Finding of No Significant Impact (FONSI), along with the Environmental Assessment (EA), for Blakely Mountain Dam Water Reallocation Study, Lake Ouachita, Garland, Arkansas, is enclosed for your review and comment. Please provide comments by ~~December 29, 2014~~, to the above address, ATTN: CEMVN-PDN-UDP.
January 5, 2015

If you have any questions concerning the FONSI or EA, please contact Mr. Terry Baldrige of this office (telephone (601) 631-5609).

Sincerely,

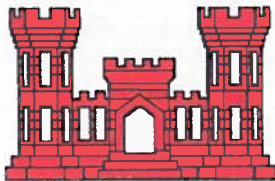

John W. Cross
Colonel, Corps of Engineers
District Commander

Enclosure

**DRAFT
ENVIRONMENTAL ASSESSMENT**

**ENVIRONMENTAL ASSESSMENT
BLAKELY MOUNTAIN DAM WATER REALLOCATION STUDY
LAKE OUACHITA, GARLAND COUNTY, ARKANSAS**

NOVEMBER 2014



**U.S. Army Corps of Engineers
Regional Planning and Environment Division South
Vicksburg District**

ENVIRONMENTAL ASSESSMENT
 BLAKELY MOUNTAIN DAM WATER REALLOCATION STUDY
 LAKE OUACHITA, GARLAND COUNTY, ARKANSAS

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<u>No.</u>	<u>Title</u>
1	EMAIL, OCTOBER 27, 2014, FWS

DRAFT
ENVIRONMENTAL ASSESSMENT
BLAKELY MOUNTAIN DAM WATER REALLOCATION STUDY
LAKE OUACHITA, GARLAND COUNTY, ARKANSAS

1.0 INTRODUCTION

This Environmental Assessment (EA) has been prepared in accordance with the Procedures for Implementing the National Environmental Policy Act (33 CFR, Part 230). The EA identifies existing conditions and determines potential environmental impacts of the reallocation of up to 50,000 acre feet in Lake Ouachita. Sufficient information is provided in this EA on the potential environmental effects of the proposed action to allow the U.S. Army Corps of Engineers, Vicksburg District Commander, to make an informed decision on the appropriateness of an Environmental Impact Statement or Finding of No Significant Impact (FONSI).

1.1 PROPOSED ACTION

The proposed action consists of increasing water available for water supply for distribution by the Mid-Arkansas Water Alliance (MAWA) by reallocating 50,000 acre feet of storage capacity of Lake Ouachita to water supply.

1.2 PROJECT AUTHORITY AND NEED

Authority for the Corps to reallocate existing storage space to municipal and industrial water supply is contained in Public Law 85-500, Title III, Water Supply Act of 1958, as amended. The Secretary of the Army is authorized to cooperate with local interests in providing storage space for municipal and industrial water supply in Corps of Engineers projects as long as the local interests agree to pay the costs associated with the storage space. The Corps has the discretionary authority to reallocate the lesser of 15 percent or 50,000 acre feet of the total storage capacity in Lake Ouachita provided the reallocation has no severe effect on other authorized purposes and will not involve major structural or operational changes.

MAWA is group of 27 water utilities in the eight counties in central Arkansas. They are requesting this storage reallocation from Lake Ouachita to meet their future water needs through the year 2050.

1.3 PROJECT DESCRIPTION

Lake Ouachita was constructed and is operated by the Vicksburg District Corps of Engineers. Blakely Mountain Dam which contains Lake Ouachita is located at the head of Lake Hamilton on the Ouachita River at mile 430.4, approximately 10 miles northwest of Hot Springs in Garland County, Arkansas. Construction of the spillway began August 15, 1947, and was completed August 31, 1948. Construction of the diversion tunnels began in July 1948 and was completed in June 1950. The river was diverted through these tunnels in May 1950. Work on the earth dam and concrete intake structure was begun in March 1950 and completed in September 1953. Construction of the power plant was begun in December 1952 and completed in October 1955. The first generation of electric power was in August 1955, and the plant was placed in commercial operation October 1, 1955.

2.0 ALTERNATIVES

2.1 NO-ACTION ALTERNATIVE (ALTERNATIVE 1)

The no-action alternative does not allow for the future water supply needs for members of MAWA. This would be inconsistent with existing and future water supply needs for the association and could severely impact the safety and health of their customers. Existing users in MAWA would be forced to find alternate water supplies for municipal and industrial needs.

2.2 ALTERNATIVE 2 (RECOMMENDED ALTERNATIVE)

The recommended plan is to reallocate 50,000 acre feet of the total storage of Lake Ouachita to meet the growing water needs of the citizens of central Arkansas.

2.3 ALTERNATIVE 3

These alternative supplies would mostly be groundwater withdrawals. Declining aquifer water levels create a multitude of problems. Because of these excessive withdrawals of groundwater, the safe yield has been approached or exceeded in the alluvial and Sparta aquifers. The Arkansas Soil and Water Conservation Commission has declared these aquifers as "critical groundwater levels" due to the safe yield concerns relating to poor water quality and to saline intrusions consistent with declining groundwater levels. Several of the existing entities currently use groundwater and are already experiencing difficulty in obtaining adequate water from their sources. Therefore, additional groundwater withdrawal is not considered a viable alternative.

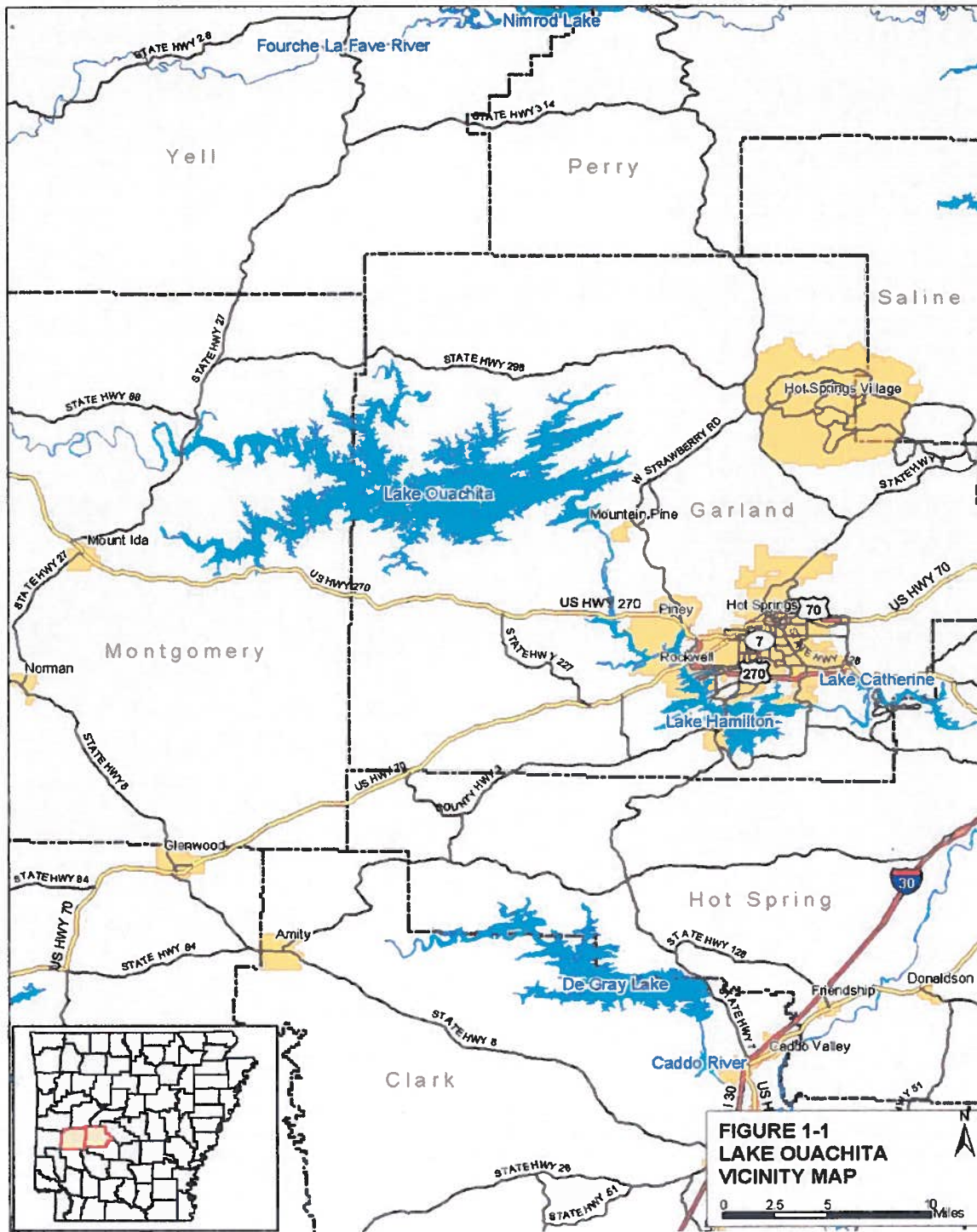


Figure 1. Lake Ouachita and Surrounding Communities

EA #36
 Lake Ouachita
 Blakely Mountain Dam
 November 2014

U.S. Army Corps of Engineers
 Regional Planning and Environment Division South
 Vicksburg District

3.0 AFFECTED ENVIRONMENT

Lake Ouachita contains an average of 1,000,000 acre feet of water storage. The surface acreage averages from approximately 40,000 to 48,000 acres throughout the year and surface elevations fluctuate approximately 9 feet each year. These fluctuations result from lake operations for flood control and hydropower generation. The project is a feature of the comprehensive plan for water resources development in the Ouachita River Basin. Entergy Power Company owns and operates two hydroelectric dams (Carpenter and Rammel Dams) immediately downstream from Blakely Mountain Dam.

In addition to the authorized purposes of Lake Ouachita for flood control and hydroelectric power generation, the multiple-purpose project provides collateral benefits of water supply and to recreation and to industry and navigation downstream from the dam through regulation of low flows in the Ouachita River.

3.1 AIR QUALITY

The air quality of the proposed project location is considered very good. Currently, the entire State of Arkansas meets all air quality standards for criteria pollutants.

3.2 WATER QUALITY

The drinking water quality of the area is good. Lake Ouachita and the Ouachita River provide the major water supply for Hot Springs and seven counties in central Arkansas while various aquifers located deep beneath the ground provide drinking water for areas away from those water bodies. Section 303(d) of the Clean Water Act requires states to identify water bodies that are considered impaired due to not meeting one or more applicable water quality standards. Section 303(d) water bodies include Indian Springs Creek in Garland County and the Caddo and South Fork Caddo River in Montgomery County.

3.3 CLIMATE

Garland County Arkansas has a humid subtropical climate with hot, humid summers and generally mild to cool winters. July and August are the hottest months of the year, with an average high of 93°F (34°C) and an average low of 70.5 °F (21.4°C). The highest recorded temperature in Hot Springs was 115 degrees Fahrenheit in 1986 while the lowest temperature recorded was -5 degrees Fahrenheit in 1989. Precipitation is weakly seasonal, with a bimodal

pattern: wet seasons in the spring and fall, and relatively drier summers and winters, but some rain in all months. The spring wet season is more pronounced than fall, with the highest rainfall in May. Hot Springs precipitation is impacted by the geographic effect of the Ouachita Mountains.

3.4 SOILS

The soils in Garland County are predominantly made up of Bismarch-Complex, Carnasas-Pirum-Clebit complex, and Yanush-Avant complex soils. The soils tend to be moderately sloped in the project area.

3.5 TERRESTRIAL RESOURCES

Wooded terrestrial habitat exist as many species of hardwood and softwood trees. Some wildlife resources that may occur within the project area are, but are not limited to, the white-tailed deer, eastern wild turkey, gray squirrel, and the northern bob white quail. No individual species of significant commercial value occur within the project area.

3.6 AQUATIC RESOURCES

The project area is Lake Ouachita. Lake Ouachita contains many species of sport and game fish including: largemouth bass, spotted bass, smallmouth bass, white bass, striped bass, crappie, and walleye. Rough fish include several species of catfish, gar, and carp. Additionally, Lake Ouachita is home to many forage fish such as sunfishes, minnows, gizzard, and threadfin shad.

3.7 WATERFOWL RESOURCES

Lake Ouachita is on the western side of the Mississippi Flyway. The open waters of the lake and flood plain forests in the general area are used year-round by wood ducks and to a lesser extent by migratory waterfowl.

3.8 WETLAND RESOURCES

In addition to their widely recognized wildlife values, wetlands provide short- and long-term storage, water velocity reduction and sediment detention, nutrient removal, and export of organic carbon to downstream ecosystems.

3.9 HAZARDOUS, TOXIC, AND RADIOLOGICAL WASTES (HTRW)

A preliminary assessment screening for HTRW will be conducted prior to construction of the structure in the future.

3.10 RECREATION AND ESTHETICS

A great variety of recreational activities are available in or close to the proposed project area. These activities include, but are not limited to, consumptive activities such as large and small game hunting and fishing in and around Lake Ouachita. Hiking, sightseeing, boating, picnicking, bird watching, scuba diving, and nature photography are some of the major non-consumptive recreational opportunities available.

3.11 THREATENED AND ENDANGERED SPECIES

The results of the species review by Vicksburg District biologists find that the Bald Eagle (*Haliaeetus leucocephalus*), the Northern Long-eared Bat (*Myotis septentrionalis*), Missouri Bladderpod (*Physaria filiformis*), Harperella (*Ptilimnium nodosum*), as well as several species mussel are known to inhabit Garland and Montgomery County.

4.0 ENVIRONMENTAL IMPACTS

4.1 AIR QUALITY

Since the reallocation of storage requires no actual construction to take place, no impacts to air quality are expected to take place. Further, the climatic conditions of the region favor rapid dispersal of pollutants and thus, would not allow concentrations to accumulate.

4.2 WATER QUALITY

Since the reallocation of storage requires no actual construction to take place, no construction impacts to water quality are expected to take place. Furthermore, the reallocation of storage in Lake Ouachita will not affect the normal pool or minimum flows from the reservoir.

4.3 TERRESTRIAL RESOURCES

Since the reallocation of storage requires no actual construction to take place, no construction impacts to terrestrial resources are expected to take place. Furthermore, the reallocation of storage in Lake Ouachita will not affect the normal pool or minimum flows from the reservoir.

4.4 AQUATIC RESOURCES

The proposed reallocation of water to water supply will have no effect on the normal pool or the low flows of the lake. Therefore, no impacts to aquatics are expected.

4.5 WATERFOWL RESOURCES

The project would have no effect on the normal pool or the low flows from the lake so it would not adversely impact migratory or resident waterfowl.

4.6 RECREATION AND ESTHETICS

Since the reallocation of water will not affect the normal pool elevation of the lake, there will be no impact on recreation or esthetic resources.

4.7 HTRW

Since this reallocation will not change the normal pool of the lake or low water flows, it is expected that the potential to expose or affect any HTRW is very low.

4.8 SECTION 404 CONSIDERATIONS

Since there is no affect to wetlands, no Section 404(b)(1) evaluations will be required for this action.

4.9 FLOOD PLAIN MANAGEMENT AND WETLAND PROTECTION

The EA has considered the objectives of Executive Orders 11988 and 11990 "Flood Plain Management" and "Protection of Wetlands," respectively. The proposed project would not result in impacts to the flood plain or wetlands.

4.10 THREATENED AND ENDANGERED SPECIES

On October 22, 2014, an email was sent to the U.S. Fish and Wildlife Service (FWS) for their comments about the proposed project and its potential effects, if any, to threatened and endangered species. The FWS responded by email on October 27, 2014, stating they have

determined the proposed project is unlikely to have any adverse affects on any Federally listed species or their habitats (Attachment 1). Therefore, it is our recommendation that no Federally listed species or their habits will be impacted by the proposed action.

4.11 CULTURAL RESOURCES

The proposed project will involve no ground disturbing activities nor affect water levels within the existing lake. Therefore; it is the determination of Vicksburg District that the proposed undertaking is a type of activity that does not have the potential to cause effects on historic properties. No further archeological work is necessary or recommended.

4.12 ENVIRONMENTAL JUSTICE

Because the proposed project involves only the reallocation of existing water storage, no Environmental Justice concerns will be encountered during the project.

4.13 CUMULATIVE IMPACTS

The Council on Environmental Quality regulations (40 CFR §1500-1508) for implementing the procedural provisions on the National Environmental Policy Act define cumulative effects as the impact on the environment which results from the incremental impact of the action when added to other past, present, and foreseeable future actions regardless. This reallocation of water in Lake Ouachita is needed in order to provide for the future water supply needs to the residents in the MAWA area. The incremental impacts of this reallocation of water, when added to former, past, and foreseeable future action, within geographical boundaries for the project would result in minimal adverse impacts to the environment.

COORDINATION

Preparation of this EA and FONSI were coordinated with appropriate congressional and Federal, state, and local interests, as well as environmental groups, Native American Indian tribes, and other interested parties.

FWS
EPA, Region VI
Natural Resources Conservation Service
Advisory Council on Historic Preservation
Arkansas Department of Wildlife, Fisheries and Parks
ADEQ

COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Environmental compliance for the proposed action would be achieved upon coordination of this EA and draft FONSI with appropriate agencies, organizations, and individuals for their review and comments; FWS confirmation that the proposed action would not be likely to adversely affect any endangered or threatened species; and receipt and acceptance or resolution of all Arkansas Department of Environmental Quality comments on the EA. The FONSI will not be signed until the proposed action achieves environmental compliance with applicable laws and regulations, as described above. The relationship of this work to requirements of environmental laws, executive orders, memorandums, land use plans, and permits was evaluated (Table 1).

CONCLUSION

This project involves the reallocation of existing water. It will have no effect on the normal pool of the lake or the outflows from it. It has been determined that the proposed action would have no adverse or beneficial impact upon cultural resources, air quality, terrestrial, aquatic, waterfowl, and wetland resources; recreation and esthetics; HTRW concerns; water quality; threatened and endangered species; cultural concerns; flood plains; and Environmental Justice concerns. There are also no cumulative impacts, adverse or beneficial, associated with the proposed action.

**TABLE 1
RELATIONSHIP OF THE PROPOSED ACTION TO
ENVIRONMENTAL PROTECTION STATUTES AND REQUIREMENTS**

Item	Compliance
<u>Federal Statutes</u>	
Archeological and Historic Preservation Act, as amended, 16 U.S.C. 469, <u>et seq.</u>	Full Compliance
Clean Air Act, as amended, 42 U.S.C. 7401, <u>et seq.</u>	Full Compliance
Clean Water Act, as amended (Federal Water Pollution Control Act), 33 U.S.C. 1251, <u>et seq.</u>	Full Compliance
Coastal Zone Management Act, as amended, 16 U.S.C. 1451, <u>et seq.</u>	Not Applicable
Endangered Species Act, as amended, 16 U.S.C. 1531, <u>et seq.</u>	Full Compliance
Estuary Protection Act, 16 U.S.C. 1221, <u>et seq.</u>	Not Applicable
Federal Water Project Recreation Act, as amended, 16 U.S.C. 460-1(2), <u>et seq.</u>	Full Compliance
Fish and Wildlife Coordination Act, as amended, U.S.C. 661, <u>et seq.</u>	Full Compliance
Land and Water Conservation Act, as amended, 16 U.S.C. 4601, <u>et seq.</u>	Not Applicable
Marine Protection, Research and Sanctuaries Act, 22 U.S.C. 1401, <u>et seq.</u>	Not Applicable
National Historic Preservation Act, as amended, 16 U.S.C. 470a, <u>et seq.</u>	Full Compliance
National Environmental Policy Act, as amended, 42 U.S.C. 4321, <u>et seq.</u>	Full Compliance
Rivers and Harbors Act, 33 U.S.C. 401, <u>et seq.</u>	Not Applicable
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, <u>et seq.</u>	Full Compliance
Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271, <u>et seq.</u>	Not Applicable
Farmland Protection Policy Act	Not Applicable

**EA #36
Lake Ouachita
Blakely Mountain Dam
November 2014**

**U.S. Army Corps of Engineers
Regional Planning and Environment Division South
Vicksburg District**

Table 1 (Cont.)

Item	Compliance
<u>Executive Orders, Memorandums, etc.</u>	
Flood Plain Management (Executive Order 11988)	Full Compliance
Protection of Wetlands (Executive Order 11990)	Full Compliance
Environmental Effects Abroad of Major Federal Actions (Executive Order 12114)	Not Applicable
Analysis of Impacts of Prime and Unique Farmlands (CEQ Memorandum, 30 August 1976)	Not Applicable
<u>State and Local Policies</u>	
Arkansas Water Quality Standards	Full Compliance

NOTES: The compliance categories used in this table were assigned based on the following definitions:

- a. Full Compliance. All requirements of the statute, executive order, or other policy and related regulations have been met for this stage of planning.
- b. Partial Compliance. Some requirements of the statute, executive order, or other policy and related regulations remain to be met for this stage of planning.
- c. Noncompliance. None of the requirements have been met for this stage of planning.
- c. Not Applicable. Statute, executive order, or other policy not applicable.