

# **REVIEW OF APPLICATION FOR RECERTIFICATION BY THE LOW IMPACT HYDROPOWER INSTITUTE OF THE ARKANSAS RIVER DAM NO. 2 PROJECT, LIHI #51**

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## **I. INTRODUCTION**

This report summarizes the review findings of the application submitted by Arkansas Electric Cooperative Corporation (Applicant, or AECC) to the Low Impact Hydropower Institute (LIHI) for recertification of the Arkansas River Dam No. 2 Hydroelectric Project FERC (P-3033). The Arkansas River Dam No. 2 Hydroelectric Project (Project) is a 108-MW, run-of-river facility located on the Arkansas River in Dumas, Arkansas. The Project was first Low Impact Certified as LIHI #51 effective January 19, 2010 and was recertified in 2015.

On May 7, 2020 LIHI received a complete application package for recertification of the Project. Since the previous certification in 2015, the Applicant has amended its FERC license to remove the Project's transmission line from the license. Because these changes affect environmental resources that are addressed by LIHI's criteria, they are considered a "material change" as defined in the LIHI Certification Handbook. There have also been material changes in the LIHI Criteria and certification process since the Project was last certified, in that an updated Certification Handbook has been published by LIHI. This current review was made using the new 2<sup>nd</sup> Edition LIHI Certification Handbook (Revision 2.04, April 1, 2020).

## **II. PROJECT'S GEOGRAPHIC LOCATION**

The Project, also called the Wilbur D. Mills dam is located at river mile 25 on the Arkansas River in Desha County, Arkansas on the US. Army Corps of Engineers' (USACE) Arkansas River Dam No. 2. The USACE constructed the dam to impound and maintain a minimum nine-foot deep navigation pool along this section of the Arkansas River which is part of the larger McClellan-Kerr Arkansas River Navigation System<sup>1</sup>. The navigation system extends 445 miles from the confluence of the White and Mississippi Rivers, along the Arkansas and Verdigris rivers to its termination at the Port of Catoosa, near Tulsa, Oklahoma. Built in the mid-1960s, the Arkansas River No. 2 dam and associated Arkansas Post Canal is located approximately 12 miles northeast of Dumas, Arkansas (Figure 1).

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<sup>1</sup> <https://www.swt.usace.army.mil/Missions/Navigation/>

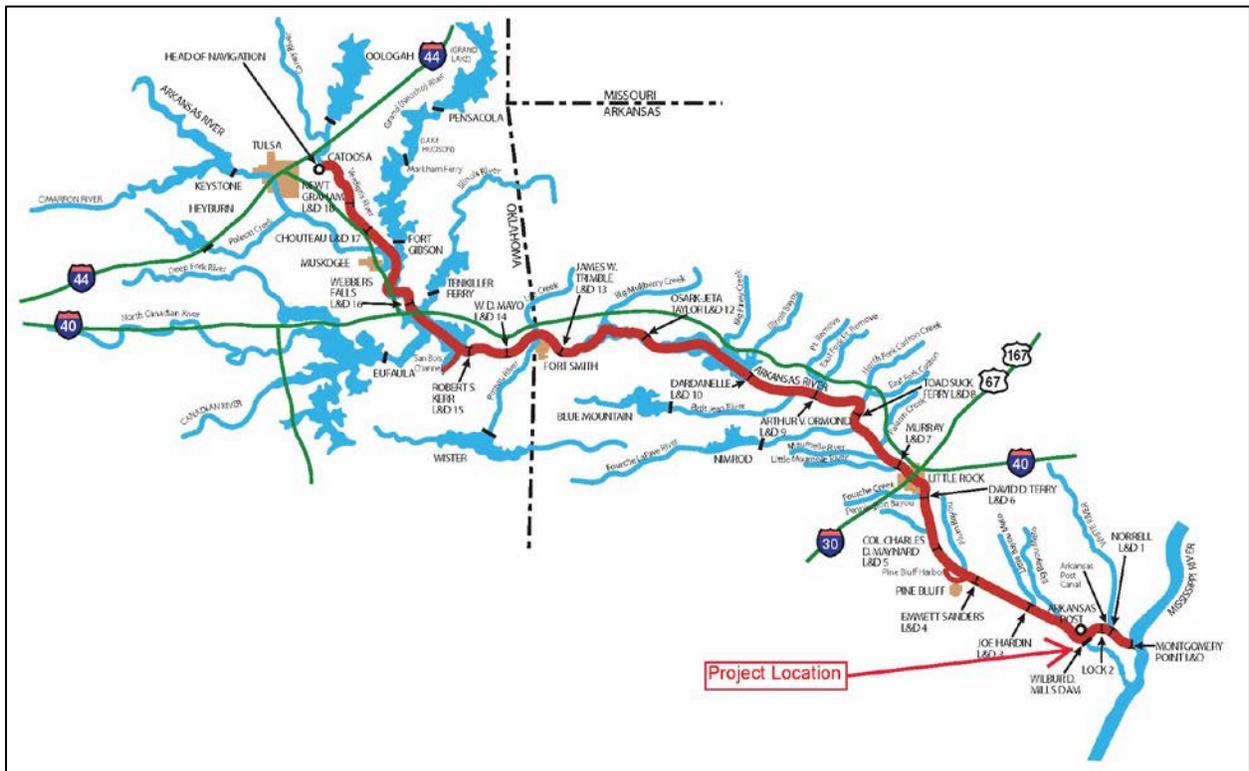
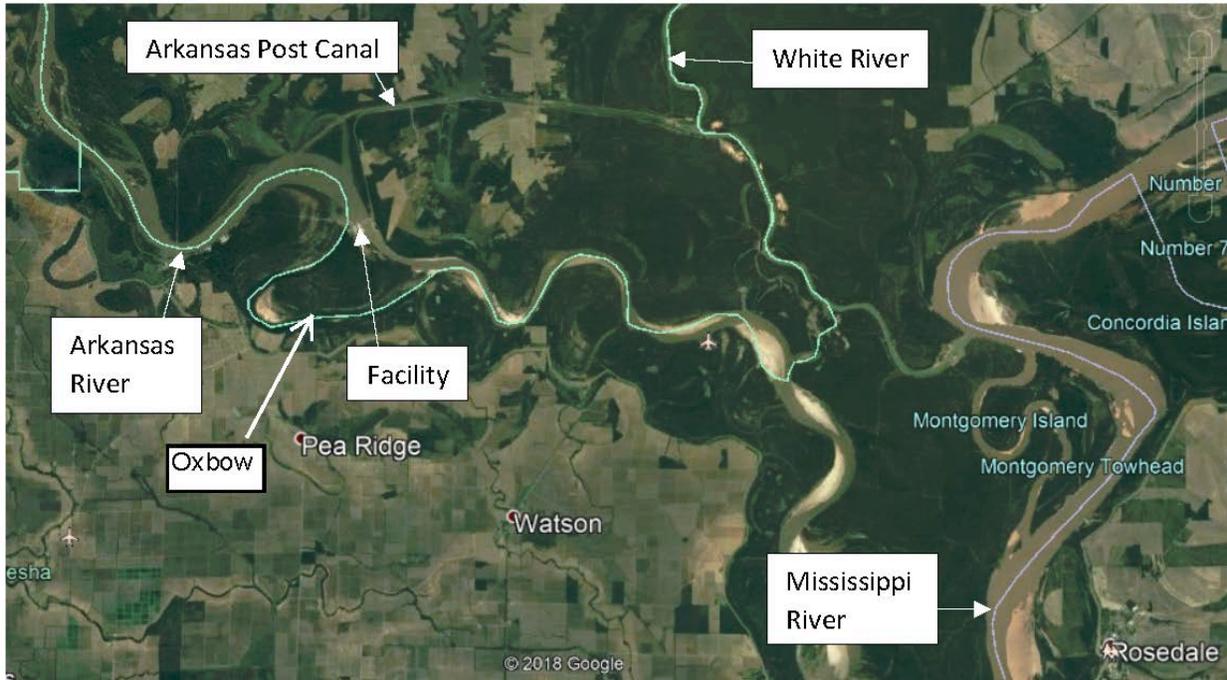


Figure 1 – Project Locus

### III. PROJECT AND IMMEDIATE SITE CHARACTERISTICS

The dam consists of a gated spillway and an earthfill overflow and non-overflow embankments. The spillway section is a straight concrete gravity type structure with a crest length of 1130 feet and 54 feet at the maximum height. Sixteen conventional tainter gates in the spillway control the upstream pool level and river flows. The USACE constructed a non-overflow earth embankment on the west end of the dam which blocked the original Arkansas River channel creating a 7-mile long oxbow lake with a small dam at the outlet of the oxbow which discharges back to the main river channel approximately 1.85 miles downstream of the dam. The access road to the dam is located on this non-overflow embankment which measures 3150 feet in length. The embankment has a crest elevation of 180 feet M.S.L. In the mid 1990's, AECC constructed the hydropower project as an integral part of this embankment (Figure 2). The LIHI application includes a detailed description of the dam, oxbow, Arkansas Post Canal and locks.



**Figure 2 – Arkansas River Dam No. 2 Hydroelectric Facility**

The hydropower project was completed and began operation in 1999. The powerhouse is approximately 180 feet wide by 225 feet long and contains three horizontal-shaft, bulb-type, axial-flow hydraulic turbine-generator units. The powerhouse's trashrack has a horizontal clear spacing of 5 inches. Each turbine has a design hydraulic capacity of 4,000 to 17,800 cubic feet per second (cfs), but the normal operating range is 4,100 to 16,400 cfs. Cumulatively, the installed capacity at the Project is 108 MW with average annual generation of 351,000 MWh.

#### **IV. ZONES OF EFFECT AND STANDARDS SELECTED**

Two Zones of Effect (ZOE) were designated by the Applicant and were determined to be appropriate. Zone 1 is the upstream intake channel while Zone 2 is the downstream tailrace channel (Figure 3). AECC has no ability to impound water at the Project and no discretion over flow releases that are dictated by the USACE. Table 1 shows the Standards selected for each criterion for the two ZOEs. I agree with the selected standards.

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**Figure 3 – Arkansas River Dam No. 2 Hydroelectric Project Zones of Effect.**

**Table 1. Standards Matrix for the Arkansas River Dam No. 2 Project.**

		<b><i>CRITERION and STANDARD SELECTED</i></b>							
<b>Zone No., Zone Name, and Standard Selected (including PLUS if selected)</b>	<b>River Mile at upper and lower extent of Zone</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
		<b>Ecological Flows</b>	<b>Water Quality</b>	<b>Upstream Fish Passage</b>	<b>Downstream Fish Passage</b>	<b>Shoreline and Watershed Protection</b>	<b>Threatened and Endangered Species</b>	<b>Cultural and Historic Resources</b>	<b>Recreational Resources</b>
1: Intake Channel	RM 25.2 to RM 25.0	1	2	1	2	1	2	1	2
2: Tailrace	RM 25.0 to RM 24.9	1	2	2	1	1	2	1	2

## V. REGULATORY AND COMPLIANCE STATUS

The Project was issued a license by FERC in 1983; however, due to construction challenges, AECC did not begin project construction until the 1990's. Article 48 of the license required the licensee to enter into a Memorandum of Agreement (MOA) with the USACE to describe the mode of hydropower operation acceptable by the USACE. Effective February 25, 1999, AECC entered into the MOA and began hydropower operations. On September 5, 2017, AECC filed an amendment application with FERC to remove the Project's transmission line from the license because AECC had constructed a new line that is part of a looped system intended to improve operational reliability, low voltage conditions, and existing area transmission line overloads during certain contingencies in the east-central Arkansas service areas. FERC approved the amendment on October 13, 2017.

The previous LIHI Certification in 2015 included a condition that the facility owner provide a status update on any agency studies pertaining to upstream or downstream fish passage issues as part of its annual filing requirement to LIHI. In 2017, AECC filed a report prepared by the Arkansas Fish and Game Commission that assessed the feasibility of installing upstream eel passage at the Arkansas River Dam No.2 (see Section VII.C below). There has been no change in status since then and the condition remains active at this time.

## VI. PUBLIC COMMENT RECEIVED OR SOLICITED BY LIHI

The application was posted for public comment on May 7, 2020 and the notice was forwarded to agencies and stakeholders listed in the application. The deadline for submission of comments was July 6, 2020. No formal comments were submitted. Based on the completeness of the application and documents available on the FERC elibrary, I did not need to contact resource agencies.

## VII. DETAILED CRITERIA REVIEW

### A. ECOLOGICAL FLOW REGIMES

**Goal:** The flow regimes in riverine reaches that are affected by the facility support habitat and other conditions suitable for healthy fish and wildlife resources.

**Assessment of Criterion Passage:** The Applicant has appropriately selected Standard A-1, Not Applicable/De Minimis Effect for both Zones.

The Project operates in a run-of-river mode with no useable storage and uses the flow rate of the Arkansas River as regulated by the USACE. The hydroelectric Project was retrofitted onto the existing Arkansas River Dam No.2 and the Applicant has no control over flow releases or the

ability to impound water. Project operations are managed by the February 25, 1999, Memorandum of Agreement Establishing Procedures for Hydropower Operation at Wilbur D. Mills Dam (MOA) between the USACE and AECC. There are no minimum flow releases required at the hydro portion of the Project and impoundment levels are managed by the USACE.

According to USACE, the upstream lakes and dams in Oklahoma on the Arkansas River and its tributaries (Figure 1) play a critical role in the operation of the navigation system, since there is no floodwater storage in the various lock and dam reservoirs. Each upstream reservoir operates for their individual authorized purposes; however, in the case of flood risk management each reservoir has limitations according to downstream conditions. Linked by their discharge to the Arkansas main stem, the reservoirs operate not only for local conditions, but also as a part of the larger system. Integrated with other projects, these lakes help to reduce high flows and augment low flows on the Arkansas and the Mississippi Rivers<sup>2</sup>. The locks and dams in the system are operated for upstream and downstream barge traffic and a minimum channel depth of 9 feet is maintained along the system to allow large barges to pass.

Just upstream of the Dam No. 2, flows are diverted to the Arkansas Post Canal navigation channel which connects the White River (and subsequently the Mississippi River) to the Arkansas River immediately upstream of the Project. According to the application, there are periods when there is essentially no flow in the Arkansas River at the Project since the river is extensively controlled upstream by the mainstem locks and dams as well as the storage reservoirs located upstream in Oklahoma. When required for navigation purposes, USACE reduces flows at each dam, sometimes shutting down dam discharges completely in order to maintain navigation pool depth. However, leakage through the dam gate seals provides at least 50-200 cfs of flow through the dam as estimated by the Applicant.

A small conduit in the dam's earthen embankment plug maintains a small flow of water into the oxbow so that it does not become stagnant in summer months. Flow is controlled by the Arkansas Fish and Game Commission.

During low flow periods, the hydro Project does not generate. When river flow is less than the minimum required hydro plant turbine flow of approximately 4,000 cfs, all flows not diverted for navigation are released through the spillway gates in accordance with the USACE normal operating procedures. The USACE may also permit the Project to pass enough water to run one unit for a few hours each day rather than opening some of the dam gates to pass excess inflow. During periods when river flow is within the operating range of the Project (4,000 cfs to 53,400), all flows not diverted to the navigation system flow through the powerhouse. For river flows between 53,400 and 200,000 cfs, discharges will be made through both the powerhouse and

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<sup>2</sup> <https://www.swt.usace.army.mil/Missions/Navigation/>

Wilbur D. Mills Dam. When river flow is greater than 200,000 cfs, the turbine units are shut down due to insufficient head and all flow is spilled through the dam.

In its letter to the Applicant dated January 6<sup>th</sup>, 2020, the US. Fish and Wildlife Service (FWS) informed AECC that based on historical records provided by AECC and USACE comparing flows before and after Project construction, AECC is not responsible for any pre-existing or potentially adverse flow-related effects to fish and wildlife resources.

A review of the Project's annual compliance letters to LIHI and FERC eLibrary indicated that no issues related to hydro plant flow operations have occurred during the current Low Impact certification period. Based on my review of the application, supporting documentation, and publicly available information, the Project is operated in a manner such that it does not affect fish and wildlife resources under its limited flow regime. As such, the Project continues to satisfy the Ecological Flow Regimes criterion.

## **B. WATER QUALITY**

**Goal:** Water Quality is protected in waterbodies directly affected by the facility, including downstream reaches, bypassed reaches, and impoundments above dams and diversions.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard B-2, Agency Recommendation for both Zones. However, Standard B-1, Not Applicable/De Minimis Effect could also apply.

The run-of-river nature of the Project ensures that operations do not impact water quality. Standard Article 19 of the FERC license also requires the licensee to take reasonable measures to prevent pollution, erosion, and sedimentation.

The Arkansas River upstream of the dam is not listed as impaired in the Arkansas DEQ's final 2016 303(d) list of impaired waters but the river downstream of the dam is listed as impaired due to low dissolved oxygen concentrations. Arkansas DEQ stated in its email to the Applicant dated November 12, 2019 that the agency does not consider the Project to be the cause of the low dissolved oxygen concentrations (application Appendix A). The agency also stated in its email dated June 2, 2014 as part of the previous LIHI certification application, that the Department has no data to suggest that the project's operations were inconsistent with the state's water quality criteria in general. The agency did not offer additional recommendations beyond those in the state's water quality criteria. FWS in their letter to the Applicant dated January 6, 2020 concurred (application Appendix B).

A review of the Project's annual compliance letters to LIHI and eLibrary indicated that no issues related to water quality have occurred during the current Low Impact certification period.

Based on my review of the application, supporting documentation, and publicly available information, the Project, given its run-of-river operation does not appear to impact water quality in the river and continues to satisfy the Water Quality criterion.

### C. UPSTREAM FISH PASSAGE

**Goal:** The facility allows for the safe, timely, and effective upstream passage of migratory fish. This criterion is intended to ensure that migratory species can successfully complete their life cycles and maintain healthy populations in areas affected by the facility.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard C-1, Not Applicable/De Minimis Effect for Zone No. 1 (Impoundment) and Standard C-2, Agency Recommendation for Zone No. 2 (Downstream Reach).

The Arkansas River contains a diverse fish community that is common amongst tributary rivers in the Mississippi River Basin and includes “ancient” non-teleost species (lampreys, sturgeon, paddlefish, and gar species), herring, cyprinids, suckers, catfish, sunfish, walleye, and drum. Invasive fish species that can occur in the project area include northern snakehead and Asian carp. American eel is the only migratory species (catadromous) in the vicinity of the Project. There are no anadromous species in either Zone of Effect.

There are no barriers to upstream passage in the impoundment Zone of Effect. In its letter to the Applicant dated January 6<sup>th</sup>, 2020, FWS informed AECC that limited passage is available via the Arkansas Post Canal that connects the White River (and subsequently the Mississippi River) to the Arkansas River immediately upstream of the Project, and at the dam during overflow flood conditions.

Fish can also pass upstream into the oxbow during periods when the lower Arkansas River backwaters and overflows the low dam at the downstream end of the oxbow.

The FERC license includes reservation of authority to require fish passage, which to date has not been exercised. The January 6, 2020 FWS letter stated that the Service did not issue a mandatory prescription for American eel at the time of licensing because it was not a species of concern at the time. FWS noted that limited passage is available via the Arkansas Post Canal, and at the Project during overflow and pass-through flood conditions. FWS indicated that if issues of passage for eels or other species are identified in the future they would be addressed at that time and that there are no concerns about resident fish passage or adverse effects to resident fish related to the Project, apart from the pre-existing conditions attributable to the USACE navigation and flood control operations.

The Project was last LIHI certified effective January 19, 2015, with the condition that:

*“The facility owner shall provide a status update on any agency studies pertaining to upstream or downstream fish passage issues as part of its annual filing requirement to LIHI. This status update will contain copies of any pertinent correspondence and documents or a statement that no changes have occurred in the past year. The owner shall cooperate fully with agency studies and notify LIHI immediately if any of those studies lead to new fish passage mitigation requirements at this facility. Based on LIHI’s review of this information, and at LIHI’s sole discretion, certification may be modified.”*

In 2017, the Arkansas Game and Fish Commission contracted with Milieu Inc. to perform a feasibility assessment for installing upstream eel passage at the dam. Potential installation sites were the AECC powerhouse or either the north or south side of the dam. The powerhouse location was determined to not be feasible because the electric distribution sub-station and the large crane located on the back side would be very difficult to navigate around to reach the upstream side of the dam. Installation at the dam was considered more feasible. In March and April 2018, the Arkansas Game and Fish Commission was considering installing temporary eel ladders and traps, but these plans did not progress beyond the design phase. In its most recent 2019 annual compliance statement to LIHI, AECC stated that there was no activity on any agency studies in 2019.

A review of the Project’s annual compliance letters to LIHI and eLibrary indicated that there have been no issues related to upstream fish passage during the current Low Impact certification period. Based on my review of the application, supporting documentation, and publicly available information, the Project continues to satisfy the Upstream Fish Passage criterion. I recommend continuation of the condition to ensure that LIHI is notified of any changes in fish passage needs or requirements.

#### **D. DOWNSTREAM FISH PASSAGE AND PROTECTION**

**Goal:** The facility allows for the safe, timely, and effective downstream passage of migratory fish. For riverine (resident) fish, the facility minimizes loss of fish from reservoirs and upstream river reaches affected by Facility operations. All migratory species are able to successfully complete their life cycles and to maintain healthy populations in the areas affected by the Facility.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard D-2, Agency Recommendation for the Impoundment Zone of Effect and Standard D-1, Not Applicable/De Minimis Effect for the Downstream Reach Zone of Effect.

As noted previously in Criterion C - Upstream Fish Passage, the only migratory species in the Project area is the catadromous American eel. After reaching sexual maturation in their freshwater habitat, eels must migrate downstream to spawn in the Sargasso Sea. Any eels in the

impoundment Zone of Effect can migrate downstream either through the USACE Arkansas Post Canal or through the dam during normal flow periods.

The Project powerhouse has a 5-inch horizontal clear trashrack spacing which would entrain fish. However, the Project also utilizes Kaplan design propeller-type runners at each of the 3 turbines, which are considered “fish-friendly” and can be adjusted as needed. This design typically yields passage survival rates of at least 70 percent. As noted above, FWS indicates no concerns over fish passage or protection at this time.

The Applicant appropriately selected Standard D-1 for the Downstream Reach Zone because whence in this zone there are no barriers to downstream movement.

A review of the Project’s annual compliance letters to LIHI and eLibrary indicated that no issues related to downstream fish passage have occurred during the current Low Impact certification period. Based on my review of the application, supporting documentation, and publicly available information, the Project continues to satisfy the Downstream Fish Passage and Protection criterion. The condition noted in Criterion C above also applies to downstream passage and protection measures should they be needed in the future.

## **E. SHORELINE AND WATERSHED PROTECTION**

**Goal:** The Facility has demonstrated that enough action has been taken to protect, mitigate and enhance the condition of soils, vegetation and ecosystem functions on shoreline and watershed lands associated with the facility.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard E-1, Not Applicable/De Minimis Effect for both Zones.

There are no specific agency recommendations and the Project does not have, nor is required to have, a specific shoreline or watershed management plan. There are no lands of ecological significance nor any critical habitats for threatened or endangered species that are under the Applicant’s ownership. As noted above, AECC has no ability to impound water and USACE is responsible for maintaining the shoreline which is composed of slopes covered with riprap.

Land use in the Project vicinity is primarily undeveloped and forested, other than uses associated with the lock and dam system. The FERC project boundary is limited to the facility structures and access to the dam and encompasses about 147 acres. Some use around the Project is recreational (see Section VII.H below), mostly fishing and camping. Hunting is common in areas just outside the Project area.

A review of the Project’s annual compliance letters to LIHI and eLibrary indicated that no issues related to shoreline and watershed protection have occurred during the current Low Impact certification period. Based on my review of the application, supporting documentation, and publicly

available information, the Project is operated in a run-of-river manner that has a de minimis effect on the watershed. Therefore, the Project continues to satisfy the Shoreline and Watershed Protection criterion.

## **F. THREATENED AND ENDANGERED SPECIES PROTECTION**

**Goal:** The facility does not negatively impact federal or state listed species.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard F-2, Finding of No Negative Effect, for both Zones.

Based on the US Fish and Wildlife IPaC review included in the application, three federally-listed bird species may inhabit the Project vicinity and include the eastern black rail (proposed threatened), the interior least tern (endangered), and the whooping crane (endangered). There is no critical habitat in either Zone of Effect. Several bird species protected under the Migratory Birds Treaty Act and the Bald and Golden Eagle Protection Act may also be observed in the Project area and include bald eagle, Kentucky warbler, prothonotary warbler, red-hooded woodpecker, rusty blackbird, wood thrush.

In its January 6, 2020 letter, FWS noted that it had consulted with USACE in 2016 on a revised programmatic biological opinion for the interior least tern and USACE's operation and maintenance of the navigation system, including hydropower operations. FWS stated that any effects to that species are pre-existing to the hydro Project and attributable to USACE operations and not Project operations.

FWS also informed AECC in that letter that pallid sturgeon (federally endangered) may inhabit the Arkansas River downstream of the dam and that the fat pocketbook mussel may be present downstream as well, due to its close proximity to other extant populations in the White and Mississippi rivers. In the same letter, FWS stated that any current effects to least tern are pre-existing (existing prior to construction and operation of the Project) and are therefore attributed to USACE operations and cannot be attributed to AECC. Regarding pallid sturgeon and the fat pocketbook mussel, FWS concluded that it has insufficient information to support or refute potential effects associated with Project operation; however, given FWS statements related to upstream and downstream fish passage, it appears the agency has no current concerns.

According to the Arkansas Natural Heritage Commission's website, state-listed species that occur in Desha County include the endangered pallid sturgeon and least tern. State-listed species that occur in Arkansas County include the pink mucket mussel (endangered), rabbitsfoot mussel (endangered), northern long-eared bat (endangered), pallid sturgeon, least tern, opaque prairie sedge (endangered), prairie evening-primrose (threatened), rein orchid (threatened), snowy orchid (endangered), pineywoods dropseed (threatened), and Arkansas meadow-rue (threatened). The application stated that American alligators are commonly seen near the Project, particularly

in the oxbow lake. The species was listed as federally endangered in 1973 but later delisted in 1987 after successful relocation and recovery. Alligators can now be hunted with a permit.

The run-of-river operation, the inability to impound water, lack of control over dam operations, small Project boundary, and the limited number of trees in the Project boundary likely minimize the potential for Project to affect listed species.

A review of the Project’s annual compliance letters to LIHI and eLibrary indicated that no issues related to threatened and endangered species have occurred during the current Low Impact certification period. Based on my review of the application, supporting documentation, and publicly available information, I find that the Project continues to satisfy the Threatened and Endangered Species criterion.

## **G. CULTURAL AND HISTORIC RESOURCE PROTECTION**

**Goal:** The facility does not unnecessarily impact cultural or historic resources that are associated with the Facility’s lands and waters, including resources important to local indigenous populations, such as Native Americans.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard G-1, Not Applicable/De Minimis Effect in both Zones.

License article 50 requires AECC to consult with the State Historic Preservation Officer (SHPO) in the event that cultural or historic resources are discovered during Project operations or construction activities. AECC contracted Panamerican Consultants, Inc. in 2019 as part of LIHI recertification to conduct a desktop review of cultural resources in the Project area based on existing information, including data from 1989 collected for USACE and data from 1994 and 2013 collected by the Applicant’s consultant for the original hydro project and the new transmission line, respectively. The final report determined that the only cultural or historic resource in the Project area is an archeological site that was partly damaged and buried under dredge spoil as a result of the USACE Arkansas Post Canal excavation that took place before the Project was constructed. A review of the National Register of Historic Places database of Listed Properties did not find any additional cultural or historic properties within either Zone of Effect. A brief history of the USACE lock and dam system provides additional historical context on the navigation system<sup>3</sup>.

Based on a review of eLibrary and Applicant’s annual compliance letters to LIHI, there does not appear to be any concern over Project effects on cultural or historic resources. Therefore, the Project continues to satisfy the Cultural and Historic Resource Protection criterion.

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<sup>3</sup> <https://encyclopediaofarkansas.net/entries/mcclellan-kerr-arkansas-river-navigation-system-2309/>

## **H. RECREATIONAL RESOURCES**

**Goal:** The facility accommodates recreation activities on lands and waters controlled by the facility and provides recreational access to its associated lands and waters without fee or charge.

**Assessment of Criterion Passage:** The Applicant appropriately selected Standard H-2, Agency Recommendations in both Zones.

During the FERC licensing process, the US Department of Interior recommended that the licensee perform an analysis to determine the need for additional recreational facilities, and to be responsible not only for the cost of relocation of part of Pendleton Bend Park, but also for developing additional recreation facilities if a demonstrated need exists. AECC covered the cost of relocating a portion of Pendleton Bend Park including the construction of twenty public campsites (with water, other facilities, and landscaping).

AECC added a boat ramp to the Arkansas River downstream of the Project, a basketball court, two public restrooms, handicap-accessible fishing sidewalks along the downstream side of the powerhouse and also along the riverbank side of the powerhouse (along the revetment area below the dam). This area was originally designed for public vehicular access across the powerhouse lower roof; however, after the events of 9/11 it was determined that the area on the riverside of the powerhouse should be restricted to pedestrian access only.

The most recent FERC environmental inspection was conducted in July 2017 (application Appendix F). Two minor items related to signage and barriers required follow up and were corrected promptly by the Applicant with documentation submitted to FERC in October 2017.

Based on my review of the application, supporting documentation, and publicly available information, the Project continues to satisfy the Recreational Resources criterion.

## **VIII. GENERAL CONCLUSIONS AND REVIEWER RECOMMENDATION**

Based on my review, I believe that the Project continues to meet the requirements of Low Impact Certification and recommend it be re-certified for a five-year period. I also recommend continuation of the current condition slightly reworded, as follows:

**Condition 1:** The facility Owner shall provide a status update on any agency studies pertaining to upstream or downstream fish passage issues as part of its annual filing to LIHI. Status updates shall contain copies of any pertinent correspondence and documents or a statement that no changes have occurred during the past year. The Owner shall continue to cooperate fully with state and federal agency studies and notify LIHI within 60 days if any of those studies lead to

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new fish passage requirements at the facility. LIHI reserves the right to modify the certification in response to new agency recommendations.