



SUBJECT - Low Impact Hydropower Institute (LIHI) Recertification Review for Arkansas Dam #2 Project

BACKGROUND

Arkansas Electric Cooperative Corporation (AECC)¹ is a rural electrical generation and distribution cooperative founded in 1949 and headquartered in Little Rock, Arkansas. It sells wholesale energy to 17 member cooperatives serving 500,000 customers across Arkansas.

AECC's Arkansas Dam No. 2 Hydroelectric Project (Project or LIHI #51), is one of a number of hydroelectric projects constructed by retrofitting existing dams on the Arkansas River. AECC developed the Project to reduce long-term costs of producing energy for its cooperatives around the state and to displace a portion of AECC's fossil-fuel derived energy with energy generated from renewable hydropower.

The Project is located at the U.S. Army Corps of Engineers (Corps) navigation dam No. 2 (ND2), also known as the Wilbur D. Mills Dam, on the Arkansas River, two miles southeast of river mile (RM) 19 on the McClellan-Kerr Arkansas River Navigation System (MKARNS). The ND2 is located in Arkansas and Desha Counties about 12-miles northeast of Dumas, Arkansas (See Figure 1). There is about 170,000 square miles of drainage above ND2.



Figure 1 - Looking West at Arkansas Dam #2

The dam consists of a gated spillway, an earth-filled overflow embankment and a non-overflow embankment. The spillway section is a straight concrete gravity type structure with a crest length of 1130-feet. Sixteen conventional taintor gates above the spillway control the upstream pool. The Corps constructed a non-overflow earth embankment on the west end of the dam to block the old Arkansas River channel. The access road to the dam is located on this non-overflow embankment which measures 3150-feet in length. This embankment has a crest elevation of 180-foot mean sea level (MSL). The ND2 creates a reservoir with a surface area of 10,560-acres at

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normal maximum operating elevation of 162-feet MSL. At an estimated average depth of 12 feet, the volume is 127,000 acre-feet.

The MKARNS is a 445-mile long waterway with 18 locks and dams distributed over the majority of that distance. The Corps constructed the waterway between 1964 and 1970 to achieve the primary goal of allowing barge traffic to traverse a 420-foot drop in elevation along the Arkansas River and its confluence with the Mississippi River.

The Corps constructed the ND2 between 1963-1968 to impound and maintain a minimum nine-foot deep navigation pool along this section of the Arkansas River. The shallowness of the lower reach of the Arkansas River precluded direct navigation from the Mississippi River to the Arkansas River.



Figure 2 - View of the McClellan-Kerr Arkansas Navigation System in the vicinity of the Project

Accordingly, the first ten miles of the White River, which meets the Mississippi River just upstream of the confluence of the Arkansas and Mississippi Rivers, provides the entrance channel to the McClellan-Kerr canal; a nine-mile artificial canal that connects the White River to the Arkansas River immediately upstream of ND2 (See Figure 2). Also, because there is no commercial navigation below ND2, the dam has no lockage facilities.

The project underwent regulatory review by state and federal natural resource, environmental and cultural resource agencies in the early 1980s and again in the early 1990s. These agencies included the Arkansas Game and Fish Commission (AGFC), the U.S. Fish and Wildlife Service (USFWS), the Arkansas Department of Pollution Control and Ecology (ADPCE), today known as the Arkansas Department of Environmental Quality (ADEQ), the Environmental Protection Agency (EPA), and the Arkansas state historic preservation office (SHPO), today known as the Department of Arkansas Heritage (DAH). Agencies stated that they had no objections to the project and made recommendations relating only to avoiding construction-related water quality impacts, performing wetland mitigation (in the context of the 404P), and providing recreation resources, but did not make any recommendations regarding flows or fish and wildlife protections.

A water quality certificate (WQC)² was issued to AECC by the ADPCE for the Project on November 4, 1981. On August 10, 1983, the Federal Energy Regulatory Commission (FERC) issued a 50-year

² 1981 WQC - <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%20G%20-%20Water%20Quality%20Cert%201981.pdf>



license for the Project³ to AECC. Due to construction challenges and other factors AECC did not begin building the project until the 1990s. On June 1, 1994⁴, the ADPCE approved a revised WQC to approve partial land fill of wetlands for the Project. Also, in 1994, AECC obtained a Corps Clean Water Act Section 404 (wetland fill) permit (404P).

AECC constructed the hydropower project into an existing non-overflow embankment and began operation in 1999 (See Figure 3). The hydro facilities (Latitude: 33° 59' 11" N degrees and Longitude: 91° 18' 56" W degrees) are separate from those of the Corps facilities.



Figure 3 - Power View Looking Upstream

A headrace channel was constructed to divert the river flow and convey it into the powerhouse. Rip-rapped slope banks and reinforced concreted training walls forming the sides of the channel were built upstream from the powerhouse. Beyond the training walls, the stabilized sides of the channel

were sloped to meet existing ground level. A log boom across the headrace is intended to trap large debris; however, a trash rack crane on the powerhouse is required to clear the trashrack of the extensive debris the Arkansas River can deliver.

Water flow is directed back into the river by the tailrace channel. A portion of the existing navigation revetments were removed to construct the headrace and tailrace channels. These channels provide a transition to the undisturbed revetment areas.

The powerhouse is approximately 180-feet wide by 225-feet long. The upstream face of the powerhouse is located about 500-feet downstream from the dam axis. The powerhouse structure is located on the west side of the Arkansas River adjacent to the dam on the existing non-overflow embankment. The powerhouse elevation is at least as high as the non-overflow embankment.

During the initial LIHI certification process in 2009, AECC requested and obtained letters from key resource agencies pertaining to the Project.

³ FERC license - <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13665671>

⁴ 1994 WQC - <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%20ArkRiver%20Att%20F%20-%20Water%20Qual%20Cert%201994.pdf>



In an April 10, 2009 letter⁵, the USFWS stated with regard to flows that, “... *we conclude that the facility is not responsible for any previously existing or potentially adverse flow-related impacts to fish and wildlife resources. This assessment pertains both to the volume of flows and to ramping rates as any effects resulting there from are attributable solely to the Corps' and their operation ...*”.

Pertaining to water quality the USFWS stated, “... *We understand that the Arkansas Department of Environmental Quality recently affirmed that the facility's operations "remain consistent with the State of Arkansas' water quality criteria, and that the Arkansas River in that area of the State is not on the 303 d list of impaired waters ...*”

With regard to the Clean Water Act the USFWS stated, “... *AECC is in compliance with all recommendations made by the Service in connection with the Clean Water Act Section 404 permit for the construction of the facility ...*”

Concerning Anadromous and Catadromous Species the USFWS stated, “... *the USFWS did not issue a mandatory fish passage prescription for American eel (anguilla rostrata) at the time of licensing because it was not then a species of concern, and it is not a federally listed species at this time ... it is the Service's position that limited passage is available upstream of the project via the Arkansas Post Canal ... Limited passage is also available at the facility site during overflow and pass through flood conditions. If fish passage issues for this or other species are identified in the future they will be addressed at that time ...*”

With regard to the Resident Fish Species the USFWS stated, “... *The Service does not currently have concerns about resident fish passage or adverse impacts to resident fish resources from the facility ...*”

Lastly, regarding Threatened and Endangered Species the USFWS stated, “...*The Service's consultation letters with AECC prior to the facility's FERC licensing made reference to two endangered species, the American alligator and Bald eagle, and generally concluded that the facility would not have adverse effects on those two species ... we believe that the facility is having no effects on these species beyond those attributable to Corps operations and pre-existing conditions ... The Interior Least Tern, a federally listed as endangered species, has been found to inhabit areas downstream of the facility since our commenting on the FERC licensing. In addition, we believe that it is possible that two other federally listed species may be present in the lower Arkansas River downstream of the facility. Those species are: Pallid sturgeon and Fat pocketbook mussel ... The Service issued recovery plans for all three species prior to construction of the facility. Those recovery plans contain no requirements that apply to the facility, nor has the Service issued incidental take authority to the facility. Furthermore, the Service consulted with the Corps in 2005 regarding their operations and provided a Biological Opinion regarding effects to and recovery of Interior Least Tern. Any current effects to Interior Least Tern are pre-existing (existed prior to construction and operation of the hydroelectric facility) and are therefore attributable to the Corps' operations and cannot be attributed to AECC or the operation of their facility ... In regards to the Pallid Sturgeon and Fat pocketbook mussel, there is currently insufficient information available to indicate whether or not they*

⁵ USFWS April 10, 1999 letter -

<http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%20C%20-%20USFWS%202009%20letter.PDF>



are present in the river system or to suggest adverse effects associated with this project apart from pre-existing conditions or effects attributable to Corps operations. Therefore, the Service has no concerns or comments regarding effects to these species from this facility at this time. ...”

In an April 10, 2009 letter⁶, the AGFC stated, “... *Biologists from our agency have reviewed the proposed project and we concur with recommendations stated in a letter from the U.S. Fish & Wildlife Service, dated April 10, 2009 ...”*

Also, in a January 9, 2012 email⁷ the USFWS, stated, “*The Service in cooperation with Mississippi State University, the Arkansas Game and Fish Commission, and the U.S. Army Corps of Engineers has tagged over 100 pallid sturgeon, a federally listed endangered species, in the Mississippi River with acoustic transmitters and placed a large array of sensors along the Mississippi, White, and Arkansas Rivers. Sensors placed on the Yancopin Bridge detected two of these fish this past spring leading us to expand our survey area by placing additional sensors upstream of the dam near Pendleton and immediately downstream of the dam on the spillway side. We would like to place an additional sensor on the powerhouse side to insure detection of any fish entering the channel approaching the powerhouse ...”*

As part of the latest LIHI recertification process in 2014, AECC requested and obtained letters from key resource agencies pertaining to the Project.

In a June 2, 2014 email⁸, the ADEQ stated that no data suggests that the Project operations to present are inconsistent with the state’s water quality criteria in general. Also, this portion of the Arkansas River is not on the EPA approved 2008 303(d) list, nor is it on the draft 2010, draft 2012, or draft 2014 lists.

In May through June of 2014 a series of emails between the AECC and the USFWS occurred pertaining to an American Eel survey study near the Project⁹.

⁶ AGFC April 15, 2009 letter - <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%20D%20-%20AGFC%202009%20Letter.PDF>

⁷ USFWS January 9, 2012 letter - <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%20L%20-%20USFWS%20email%201-9-2012.pdf>

⁸ June 2, 2014 ADEQ email - <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%20E%20-%20ADEQ%20Confirmation%202014.pdf>

⁹ USFWS June 2014 email - <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%20M%20-%20USFWS%20email%206-6-2014.pdf>



Arkansas Dam No. 2

The Project consists of a single development with a total installed capacity of 108.0 megawatts (MW), producing an average annual generation (AAE) of 315 gigawatt-hours (GWh). The annual plant factor is 33.3%.

The powerhouse contains three horizontal shaft axial-flow bulb turbines. Each of the turbines is of the Kaplan propeller type with four adjustable blades, and adjustable wicket gates, complete with an electronically controlled hydraulically operated governor. The maximum net power head available to the turbines is approximately 44.5 feet. The turbines operate under a net head which normally ranges from 5-feet to 37-feet. Each turbine is directly coupled to a generator by the horizontal shaft. Both rotate at 72 revolutions per minute (rpm).

The electrical power and energy from the project is conveyed to the electrical network by a single span of 115-kilovolt (kV) transmission line to a new 115-kV switching station. The switching station is connected to a new 115-kV transmission line which was constructed by the Arkansas Power and Light Company (APLC) and is now owned by Entergy.

As required by the FERC license, the project operates in a run-of-river mode (ROR), with no ability to impound water and no discretion over flow releases, which are dictated by the Corps. The February 25, 1999 Memorandum of Agreement Establishing Procedures for Hydropower Operation at Wilbur D. Mills Dam between the Corps and AECC¹⁰ (MOA) stipulates:

“During normal operation the Hydropower Project will generate with one, two, or three units up to 24 hours per day when available river flows exist. All of the following flows are approximate. The flow range during which generation is possible is from 4,000 cfs (minimum turbine discharge) to 200,000 (flow at which units are shut down due to insufficient operating head). River flows from 4,000 cfs to 53,400 cfs (Hydropower Project maximum discharge capacity) normally will be passed through the powerhouse but may be passed through either, neither, or both the powerhouse and Wilbur D. Mills Dam in a coordinated effort, as the Corps deems appropriate. It shall be the responsibility of the Licensee to assure release rates are made as set by the Corps. The Licensee shall schedule all hydropower releases in compliance with the Lockmaster’s needs and instructions. For river flows between 53,400 and 200, 000 cfs, discharges will be made through both the powerhouse and Wilbur D. Mills Dam. At flows greater than 200,000 cfs, discharges will be made through Wilbur D. Mills Dam only. The Licensee agrees to fully cooperate with the Corps in the establishment of release schedules and in case of disagreement the Corps’ decision will be final.”

In practice, each turbine typically operates over a flow range of 4,100 to 16, 400 cubic feet per second (cfs). The maximum flow rate through the powerhouse is in the range of 51,000-cfs. At this flow range or below, all flows pass through the powerhouse and no flow is through the Corps spillway gates. At total river flow above 51,000-cfs up to about 210,000-cfs, the Corps’ spillway gates are opened to handle the flows beyond the 51,000-cfs capacity of the powerhouse. Any river flow above 210,000-cfs usually has insufficient head for turbine operation, in which case all flows are released through the spillway gates.

¹⁰ MOA - <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=8137453>



LIHI RE-CERTIFICATION PROCESS

Recertification review focuses solely on determining the answers to the following two questions:

- 1) Has there been a material change in circumstances since the original certification was issued?

For purposes of recertification review, a “material change in circumstances” will mean one or both of the following:

(a) Non-compliance: Since receiving its last certification from LIHI, the certificate holder/applicant has not implemented, or has delayed implementing, or has done an inadequate job of implementing obligations at or near the facility that are of relevance to LIHI’s criteria. These obligations could be in the form of terms and conditions of license(s), settlement agreements, resource agency recommendations or agreements, LIHI conditions of certification including annual notifications, agreements with local municipalities or other third parties or similar relevant obligations; or

(b) New or renewed issues of concern that are relevant to LIHI’s criteria: Since receiving its last certification from LIHI, either new issues of concern and relevance to LIHI’s criteria have emerged that did not exist or were not made known to LIHI at the time of certification, or there continues to be ongoing problems with previously known issues that appeared to LIHI to be resolved or on the road to resolution at the time of certification but in fact are not resolved, and are ongoing at the time of the re-certification application.

If a new license, settlement agreement, prescription, biological opinion or other similar regulatory decision has been made since the original recertification, these documents will be evaluated to determine if new or renewed issues have been raised.

- 2) Have any of LIHI’s criteria, or the Board’s interpretation of one or more criterion, changed in meaningful ways since original certification that are applicable to the circumstances of the facility seeking re-certification?

I reviewed the LIHI application to assess adherence to the LIHI certification criteria with the above in mind. The prior certification of the Project was issued on January 19, 2010 and terminated on January 19, 2015. LIHI received the application to recertify the Project from AECC on May 30, 2014. LIHI posted the application for public notice on June 1, 2014, and the public comment period closed on August 1, 2014. No public comments were received by LIHI during the open comment period.

A FERC e-library search was conducted to verify claims in the application. The docket search contains documents from as far back as January 1, 2000. My review concentrated on the period from the start of the previous LIHI certification, approximately January 19, 2010 through January of 2015, for FERC docket number P-3033. Appendix B contains a reversed chronological list of docket items pertaining to this recertification. No major issues were found in the docket search.



On January 13, 2015, this reviewer emailed the agencies listed in the Project's Recertification application (USFWS¹¹, AGFC¹², ADEQ¹³ and the DAH¹⁴). In my email I stated, "... I am the LIHI reviewer tasked with determining whether Arkansas Electric Cooperative Corporation (AECC)'s Arkansas Dam #2's Project should be LIHI recertified. I am emailing you today because you have been identified in the application by the owner as resource agency and non-governmental organization contacts familiar with the project. I would appreciate your perspective regarding the project's proposed operation with regard to satisfying its licensed environmental obligations (FERC articles) and your views pertaining to the project being "low impact". Without your input my review can only be based on the documents found in the FERC docket. Thank you for your time in this matter. "

Agency responses follow:

- USFWS – On January 14, 2015, in an email from Lindsey Lewis, she stated, "Look forward to working with you. There have been some new developments in that area and we continue to do a lot of research around and downstream of Dam 2. I will discuss this with some of my colleagues and we will contact you soon about having a conference call. With schedules and weather issues, it may be a week or several weeks, but we will be in touch."
- AGFC - On January 21, 2015, in an email from Jennifer Sheehan, she stated, "Our large rivers biologist would like to speak with the Arkansas USFWS office regarding eel passage issues. We would most likely be able to schedule a meeting with them during the first week of February and have our comment to you by Friday the 6th."
- DAH - On January 22, 2015, a letter was received from Frances McSwain, Deputy State Historic Preservation Officer, stating, "... All tribal groups associated with the Trail of Tears passed through this area. The archeological situation at the location is the same as in 1996 and we concur that no known historic properties will be affected by this undertaking ..."
- AGFC - On February 6, 2015, in an email from Jennifer Sheehan, she attached a comment letter (See Appendix A). The AGFC states that recent studies have shed new light on the distribution and abundance of American Eels within Arkansas. A recent 2014 study concludes that ND2 is likely an impassable structure for upstream migration of eels. Also, the American Eel is undergoing status review by the USFWS and may warrant listing on the Federal Register. The AGFC offered its assistance in developing studies that will provide data on current migratory fish presence both above and below the ND2 and extent of downstream turbine-related mortality.

¹¹ USFWS, Lindsey Lewis - lindsey_lewis@fws.gov - (501) 513 4489

¹² AGFC, Jennifer Sheehan - Jennifer.Sheehan@agfc.ar.gov - (501) 978-7301 Ext 4

¹³ ADEQ, Mark Hathcote - Hathcote@adeq.state.ar.us - (501) 682-0028

¹⁴ DAH, Eric Gilliland - Section106@ArkansasHeritage.org - (501) 324-9880



RE-CERTIFICATION REVIEW

This section contains my review of the Project with regard to LIHI's certification criteria focusing solely on determining if there has been a material change in circumstances since the original certification was issued.

LIHI Criterion-Flows

No specific resource agency recommendations have been issued subsequent to December 31, 1986 regarding flow conditions for fish and wildlife protection, mitigation and enhancement pertaining to the Project's operation. Additionally, no documentation pertaining to any minimum flow releases from the Project were found in the FERC docket.

However, in an USFWS April 10, 2009 letter, the agency states that the facility is not responsible for any previously existing or potentially adverse flow-related impacts to fish and wildlife resources. Additionally, all flow assessments pertaining both to the volume of flows and to ramping rates are attributable solely to the Corps and their operation.

Throughout the prior LIHI certification period, no new areas of concern have occurred.

LIHI Criterion-Water Quality

A WQC was issued to AECC by the ADPCE for the Project on November 4, 1981. On June 1, 1994, the ADPCE issued a revised WQC to approve partial land fill of wetlands for the Project.

As part of the latest LIHI recertification process in 2014, AECC requested and obtained a response from ADEQ pertaining to water quality issues at the Project. In a June 2, 2014 email, the ADEQ stated that no data suggests that the Project operations to present are inconsistent with the state's water quality criteria in general. The ADEQ also stated that this portion of the Arkansas River is not on the EPA approved 2008 303(d) list, nor is it on the draft 2010, draft 2012, or draft 2014 lists.

Additionally, no documentation pertaining to any water quality issues at the Project were found in the FERC docket.

Throughout the prior LIHI certification period, no new areas of concern have occurred.

LIHI Criterion-Fish Passage and Protection

In April of 2009, the USFWS stated that it did not issue a mandatory fish passage prescription for American Eel at the time of licensing (1983) because it was not then a species of concern, and it was not a federally listed species at this time. The Service's also believed that limited passage was available upstream of the project via the canal bypass and at the facility site during overflow and pass through flood conditions. The USFWS also said that if fish passage issues are identified in the future they will be addressed at that time.



With regard to the resident fish species, the USFWS did not have concerns about resident fish passage or adverse impacts to resident fish resources from the Project. The AGFC concurred with the USFWS's findings.

In 2012, the USFWS conducted preliminary studies to determine if the American Eel is present in the area, and if so, to what extent. AECC made some facilities at the powerhouse available to the USFWS to assist with their studies.

In response to a January 13, 2015 email to resource agencies knowledgeable with the Project's operation, I received a letter from the AGFC on February 6, 2015. The AGFC states that recent studies have shed new light on the distribution and abundance of American Eels within Arkansas. The American Eel is undergoing status review by the USFWS and may warrant listing on the Federal Register. The AGFC offered its assistance in developing studies that will provide data on current migratory fish presence both above and below the ND2 and extent of downstream turbine-related mortality.

Additionally, no documentation pertaining to any fish passage issues at the Project were found in the FERC docket.

To date, AECC has been in compliance with all LIHI Fish Passage and Protection criteria. However, American Eel distribution and abundance on the Arkansas River within the vicinity of the Project has become a new area of interest with some resource agencies. Further study and review could result in the agencies recommending the need for either upstream or downstream passage during the next LIHI certification period.

LIHI Criterion-Watershed Protection

The Corps manages the ND2's shoreline and adjacent lands separately from the Project. Resource agencies have not issue any recommendations, nor required the project to prepare any Shoreline Management Plan. Additionally, no documentation pertaining to any watershed protection issues at the Project were found in the FERC docket.

A review of the FERC docket indicates that during the prior LIHI certification period, the Project is in compliance with concerns pertaining to watershed protection. Additionally, no new areas of concern have occurred.

LIHI Criterion-Threatened and Endangered Species

In April of 2009, the USFWS stated that consultation letters with AECC prior to the facility's FERC licensing (1983) made reference to two endangered species, the American alligator and Bald eagle, and generally concluded that the facility would not have adverse effects on those two species. The USFWS believed that the facility is having no effects on these species beyond those attributable to Corps operations and pre-existing conditions.



The Interior Least Tern, a federally listed endangered species, has been found to inhabit areas downstream of the facility since 1983. In addition, it is possible that two other federally listed species may be present in the lower Arkansas River downstream of the facility. Those species are: Pallid sturgeon and Fat pocketbook mussel. The USFWS issued recovery plans for all three species prior to construction of the Project. Those recovery plans contain no requirements that apply to the facility, nor has the USFWS issued incidental take authority to the facility.

Furthermore, the Service consulted with the Corps in 2005 regarding their operations and provided a Biological Opinion regarding effects to and recovery of Interior Least Tern. Any current effects to Interior Least Tern are pre-existing (existed prior to construction and operation of the hydroelectric facility) and are therefore attributable to the Corps' operations and cannot be attributed to AECC or the operation of their facility.

In regards to the Pallid Sturgeon and Fat pocketbook mussel, there is currently insufficient information available to indicate whether or not they are present in the river system or to suggest adverse effects associated with the project apart from pre-existing conditions or effects attributable to Corps operations. Therefore, the USFWS has no concerns or comments regarding effects to these species from this facility.

A review of the FERC docket indicates that during the prior LIHI certification period, the Project is in compliance with both state and federal resource agencies concerns pertaining to threatened and endangered species and that no new areas of concern have occurred.

LIHI Criterion-Cultural Resource Protection

In response to a January 13, 2015 email to resource agencies knowledgeable with the Project's operation, I received a letter from the DAH's Deputy State Historic Preservation Officer (Frances McSwain) on January 22, 2015. The DAH stated that all tribal groups associated with the Trail of Tears passed through this area. Additionally, the archeological situation at the location is the same as in 1996 and we concur that no known historic properties will be affected by this undertaking.

A search of the FERC docket indicates that no cultural resource management issues have been requested by the DAH.

A review of the FERC docket indicates that during the prior LIHI certification period, the Project is in compliance with both state and federal resource agencies concerns pertaining to protection of cultural resources and that no new areas of concern have occurred.



LIHI Criterion-Recreation

The Project is in compliance with Article 17 of the FERC license, which required AECC to conduct an analysis to determine if there is a need for additional recreational facilities and be responsible for the cost of relocation of part of Pendleton Bend Park and to provide for future additional recreation development, if there is a demonstrated need. On October 4, 1996, the Corps approved the Wilbur D. Mills Park that was relocated by AECC¹⁵. AECC allow access to the park without fees or charges.

Additionally, no documentation pertaining to any recreational issues at the Project was found in the FERC docket.

Throughout the prior LIHI certification period, the Project has been in compliance with all requirements regarding recreation protection, mitigation and/or enhancements included in the FERC license. The Project allows access to the reservoir and downstream reaches without fees or charges. Additionally, no new areas of concern have occurred during the prior LIHI certification period.

LIHI Criterion-Facilities Recommended for Removal

A review of the FERC docket indicates that during the prior LIHI certification period, EBH does not have any facility that has been recommended for removal by a natural resource agency.

¹⁵ <http://www.lowimpacthydro.org/assets/files/Arkansas%20River%20Dam%202/ArkRiver%20Att%201%20-%20Recreation%20Documentation.PDF>



RECOMMENDATION

A review of the recertification application, additional documentation noted herein, public comments submitted in writing or other communications with resource agencies and other entities, and a FERC docket search from the start of the previous LIHI certification, January 19, 2010 to the end of the certification on January 19, 2015 and through January of 2015, shows that AECC has been proactive regarding environmental issues associated with the Project. The docket search review resulted in no major non-compliance issues surfacing in the record. The project continues to satisfy the LIHI criteria.

One issue of concern pertains to a possible change in the downstream fisheries management objectives and recommendations by the USFWS and/or AGFC. Therefore, I recommend that AECC be issued a conditional LIHI recertification for an additional five years for the Arkansas Dam No. 2 Project, FERC Dockets P-3033.

A condition of LIHI recertification is for AECC to provide a status update on any agency studies pertaining to upstream or downstream fisheries management objectives 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. Based on LIHI's review of this information, and at LIHI's sole discretion, certification may be modified.

Gary M. Franc



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Licensing & Compliance

Hydropower Consulting & Modeling



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February 19, 2015

APPENDIX A PERTINENT DOCUMENTS



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February 19, 2015

APPENDIX B
SUMMARY OF E-LIBRARY SEARCH
(FERC 3033)
(REVERSE CHRONOLOGICAL ORDER)