

**BEFORE THE OKLAHOMA WATER RESOURCES BOARD
STATE OF OKLAHOMA**

In the Matter of the Application of)
the City of Oklahoma City for a) Permit Application No. 2007-0017
Regular Permit to Divert Stream Water)
in Pushmataha County, Oklahoma)

APPLICANT'S POST-HEARING BRIEF

The City of Oklahoma City (City or Applicant), respectfully submits this Post-Hearing Brief (Brief) pursuant to O.A.C. § 785:4-7-10 and the Hearing Examiner's August 24, 2017, instructions. This Brief applies the Applicant's three days of evidence to the Oklahoma Water Resources Board's (OWRB) four points of law, and argues the Applicant has more than satisfied the permit requirements. In addition, this Brief responds to the most reasonable and relevant opposing arguments. Based on the record before her, the Applicant respectfully requests the Hearing Examiner recommend granting its permit application.

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I. BACKGROUND

This proceeding took place pursuant to Oklahoma Stream Water Use Law, 82 O.S. §§ 105.1–105.33, which authorizes the OWRB to conduct an administrative proceeding to determine an application for water rights. The Applicant in this matter seeks a permit to appropriate 115,000 acre-feet of stream water per year (AFY) from the Kiamichi River and Sardis Lake, to be taken from a point of diversion near Moyers Crossing in Pushmataha County. The Applicant proposes to beneficially use the water for municipal use by Oklahoma City and Oklahoma City's current and future wholesale and retail water customers, and other public water supply entities in Oklahoma.

Eighty-four individuals and entities filed protests in response to the Application.

On June 28, 2017, the Hearing Examiner, the Honorable Lyn Martin-Diehl, held a pre-hearing conference in Oklahoma City, Oklahoma, at which numerous individuals and entities appeared in support of, in opposition to, and interested in the permit application. On August 21–25, 2017, the Hearing Examiner conducted a full hearing at the OWRB offices in Oklahoma City, Oklahoma.

The hearing was divided into two phases. In the first phase, the parties presented evidence for purposes of compiling a record on the application; in the second phase, interested persons had the opportunity to provide public comments. Appearing as parties at the evidentiary portion of the hearing were: (1) the Applicant, represented by the law firm Ryley Carlock and Applewhite and Oklahoma City Municipal Counselor's Office; (2) counselors Kevin R. Kemper and R. Chris Chandler on behalf of Protestants Imogene Hairrell Harris, Frank Hilton, Denise Hilton, Justin Jackson, Debbie Leo, Larinda McClellan, Kevin Payne, Roger Payne, Walter Myrl Redman, individually and on behalf of the Louise A. Redman Trust, Kenneth Roberts, and Diane Smith (Represented Protestants); and (3) Mayor Don Faulkner on behalf of Protestant the Town of Talihina.

At the conclusion of the hearing, the Hearing Examiner issued an order setting forth a timeframe during which the parties had the opportunity to file post-hearing briefs and interested persons had additional opportunity to submit public comments.

II. LEGAL AUTHORITY

Title 82 of the Oklahoma Statutes and Chapter 20 of the OWRB regulations governs appropriation and use of stream water. *See* 82 O.S. §§ 105.1–105.33; O.A.C. §§ 785:20-1-1–785:20-11-9. When used in Chapter 20, the following words have the following meanings:

“Appropriative right to stream water” means the right acquired under the procedure provided by law to take a specific quantity of public water, by direct diversion from a stream, an impoundment thereon, or a playa lake, and to apply such water to a specific beneficial use or uses.

“Beneficial use” means the use of such quantity of stream or groundwater when reasonable intelligence and reasonable diligence are exercised in its application for a lawful purpose and as is economically necessary for that purpose. Beneficial uses

include but are not limited to municipal, industrial, agricultural, irrigation, recreation, fish and wildlife, etc.

“Domestic use” means the use of water by a natural individual or by a family or household for household purposes, for farm and domestic animals up to the normal grazing capacity and for the irrigation of land not exceeding a total of three (3) acres in area for the growing of gardens, orchards, and lawns of the land whether or not the animals are actually owned by such natural individual or family[.]

O.A.C. § 785:20-1-2 (emphasis added); *see also Franco-American Charolaise, Ltd. v. Okla. Water Res. Bd.*, 1990 OK 44, ¶ 9 (recognizing riparian and appropriative rights as coexistent, prevailing water law in Oklahoma) (“Riparian rights arise from land ownership, attaching only to those lands which touch the stream.”).

Before taking final action on a stream water permit application, the OWRB determines from the evidence these four points of law:

- (1) *Unappropriated water is available in the amount applied for* [82:105.12(A)(1)] (as set forth in 785:20-5-5(a) and (b));
- (2) *The applicant has a present or future need for the water and the use to which applicant intends to put the water is a beneficial use. In making this determination, the Board shall consider the availability of all stream water sources and such other relevant matters as the Board deems appropriate, and may consider the availability of groundwater as an alternative source* [82:105.12(A)(2)] as set forth in 785:20-5-5(c);
- (3) *The proposed use does not interfere with domestic or existing appropriative uses* [82:105.12(A)(3)] as set forth in 785:20-5-5(d); and
- (4) *If the application is for the transportation of water for use outside the stream system wherein the water originates,* [82:105.12(A)(4)] the provisions of Section 785:20-5-6 are met.

O.A.C. § 785:20-5-4(a) (emphasis in original); *see also* 82 O.S. § 105.12. If the OWRB determines these four points of law and the applicable provisions of Chapter 20 have been established, then the OWRB “*shall approve the application by issuing a permit to appropriate water.*” O.A.C. § 785:20-5-4(b) (emphasis in original). *Accord* 82 O.S. § 105.12(A).

The relevant statutory elements for approval of an application to appropriate stream water are set forth in more detail in section 785:20-5-5:

(a) Determination of water available for appropriation from a stream.

- (1)** For direct diversions from a stream, the determination of water available for appropriation shall take into consideration the mean annual precipitation run-off in the watershed above the point(s) of diversion, the mean annual flow, stream gauge measurements, domestic uses and all existing appropriations and other designated purposes in the stream system. The Board may consider other evidence or laws relating to stream flow or elevation, including but not limited to apportionment provisions of interstate stream compacts to which the State of Oklahoma is a party and the Oklahoma Scenic Rivers Act.
- (2)** Absent the presentation of more accurate evidence to the contrary, the Board shall estimate the amount of water required to satisfy domestic use to be six (6) acre-feet per household per year or three (3) acre-feet per non-household domestic use.

(b) Determination of water available for appropriation from a reservoir, lake or pond.

...

(3) If an application is made to appropriate water from water supply storage at Sardis Reservoir, an amount of 20,000 acre-feet of water shall not be considered available for appropriation unless the applicant's use is within one or more of the 10 county area of southeastern Oklahoma. . . .

- (i)** Appropriations shall be granted first from the remainder of the yield of Sardis Reservoir; and
- (ii)** Water appropriated from the 20,000 acre-feet amount cannot be used as a substitute for water which is used out of southeastern Oklahoma; and

...

- (iv)** No water shall be released or withdrawn from water supply storage in Sardis Reservoir unless a lake level management plan for the applicant's use has been reviewed by the Oklahoma Department of Wildlife Conservation and is approved by the Board, provided that an approved lake level management plan shall have an emergency clause for domestic use.

(c) Present or future need.

- (1) In considering the amount of water requested, the Board may review the efficiency of the works proposed to place the water to beneficial use and may order modifications to such works or that different works be utilized.**
- (2) For a proposed public water supply or municipal use, the Board may review population projections for the area served or proposed to be served by the applicant.**

(d) Determination of interference with domestic and existing appropriate uses.

- (1) For purposes of determination of interference with domestic uses of stream water, interference with domestic use of groundwater will not be considered.**
- (2) The Board may determine that conditions or restrictions are necessary to protect existing beneficial uses and rights and may establish and impose such conditions on certain stream flow whereby direct diversion may be allowed only during certain times of the year or when a certain level of stream flow or elevation in the stream is reached. In some cases, the Board may determine that water storage is necessary.**
- (3) If the Board determines water to be available for appropriation pursuant to 785:20-5-5(a) and (b) and the applicant agrees to the placement of a condition(s) on the permit that the proposed use will not interfere with domestic or existing appropriate uses and/or conditions or restrictions pursuant to 785:20-5-5(d)(2), it shall be a presumption that interference will not occur.**

See also 82 O.S. § 105.12; *Franco-American Charolaise*, ¶ 31 (holding that OWRB's ability to consider alternative sources such as groundwater in determining present or future need in O.A.C. § 785:20-5-4(a)(2) was discretionary, "consistent with the state's policy recognizing groundwater as a limited and dwindling supply which should not be depleted needlessly.").

Section 785:20-5-5(e) contains additional protective factors the OWRB must consider for streams the Oklahoma Legislature has "designated" as a "scenic river area" under the Scenic Rivers Act, 82 O.S. § 1452, or the OWRB has "designated" as "Outstanding Resource Waters." The additional factors are meant "to assure that appropriate instream flows are protected"; for example, by considering the quantity of flow needed for recreational purposes and the potential of the diversion to alter the water quality or physical characteristics of the stream. Here, the Legislature has not designated the Kiamichi River basin as a scenic river area, nor has the OWRB designated any part of the Kiamichi River basin under the water quality stream standard of Outstanding Resource Waters. Thus, the additional factors of section 785:20-5-5(e) do not apply to this permit application.

Riparian landowners are not automatically entitled to instream flow rights. The Oklahoma Supreme Court has adopted the reasonable use doctrine and disavowed the natural flow doctrine for determining riparian rights. *Franco-American Charolaise*, ¶¶ 9–14; *see also id.* at ¶ 9 (“A riparian interest, though one in real property, is not absolute or exclusive; it is usufructuary in character and subject to the rights of other riparian owners.”).

The statutory element for approval of an application for transportation of water for use outside the stream system where the water originates is set forth in more detail in section 785:20-5-6(a):

(1) The proposed use must not interfere with existing or proposed beneficial uses within the stream system and the needs of the water users therein. In making this determination, the Board shall utilize the review conducted pursuant [82:105.12(A)(4)] to (b) of this Section.

(2) In the granting of water rights for the transportation of water for use outside the stream system wherein water originates, pending applications to use water within such stream system shall first be considered in order to assure that applicants within such stream system shall have all of the water required to adequately supply their beneficial uses. [82:105.12(B)]

Finally, an OWRB appropriative permit is not absolute. The Applicant must adhere to a rigorous timeline for construction of works. O.A.C. § 785:20-9-1. And, if a riparian owner asserts his vested right to initiate a reasonable use of the stream and the water is insufficient, an appropriator with last priority, as the Applicant would be here, “must either release water into the stream sufficient to meet the riparian owner’s reasonable use or stop diverting an amount sufficient to supply the riparian owner’s reasonable use until there is water sufficient to satisfy both interests.” *Franco-American Charolaise*, ¶ 37.

III. FACTUAL AND PROCEDURAL HISTORY

A. Pre-Hearing Motions

1. Continuance

On June 19, 2017, Mr. Kemper moved for a pre-hearing continuance and the Hearing Examiner denied the motion.

2. Notice

In February and March 2017, the Applicant provided public notice of its application in general circulation newspapers in Pushmataha County, Choctaw County, Latimer County, Pittsburg County, and McCurtain County. (Applicant’s Exhibits 16–21, admitted at Tr. 08/23/17, pp. 172–174.)¹ The Represented Protestants moved to dismiss the permit proceeding

¹ The rough drafts of the Hearing transcripts are available at this link: <https://rcalaw.sharefile.com/d-sd93d44f099e43228>. The Applicant will file an amended Post-Hearing Brief with citations to the final drafts of the Hearing transcripts once those are received.

for inadequate notice, or in the alternative, require revised published notice and re-open protests. On July 26, 2017, the Hearing Examiner denied the motion to dismiss for inadequate notice and held that the Applicant's publication complied with 82 O.S. § 105.11 and O.A.C. § 785:20-5-1.

3. Standing

On June 19, 2017, Mr. Kemper moved to submit a late application protest of the Kiamichi River Legacy Alliance (KRLA). The Applicant responded. On June 28, 2017, the Hearing Examiner denied the motion because the protest was untimely and KRLA's members were already named parties.

On July 17, 2017, the Applicant moved to dismiss sixty-two Protestants for lack of standing under O.A.C. § 785:4-5-4, including Oklahomans for Responsible Water Policy for lack of associational standing. The Represented Protestants and Oklahomans for Responsible Water Policy responded. On August 14 and 15, 2017, the Hearing Examiner granted the Applicant's motions to dismiss as to sixty of the Protestants, including Oklahomans for Responsible Water Policy.

On August 17, 2017, after two rounds of discovery, the Applicant moved to dismiss sixteen more Protestants for lack of standing under O.A.C. § 785:4-5-4. The Represented Protestants responded. On August 21, 2017, the Hearing Examiner denied the motion.

4. Motions in Limine

On July 7, 2017, the Applicant moved to exclude the United States Fish and Wildlife Service's April 10, 2017, Letter (FWS Letter), for lack of relevancy under O.A.C. § 785:4-7-5. The Represented Protestants responded. On August 21, 2017, the Hearing Examiner admitted the FWS Letter as a public comment but not as evidence.

On August 11, 2017, the Applicant moved to exclude the testimony of Dr. Caryn Vaughn, Ph.D., proposed witness for the Represented Protestants, for lack of relevancy under O.A.C. § 785:4-7-5. The Represented Protestants responded. On August 17, 2017, the Hearing Examiner denied the Applicant's motion in limine to exclude Dr. Vaughn's testimony to the extent Dr. Vaughn could draw conclusions regarding the amount of stream flow in the Kiamichi River between Sardis Lake and Moyers Crossing.

5. Motion to Dismiss

On August 11, 2017, the Town of Talihina moved to dismiss or stay the permit proceeding because of pending litigation in the United States District Court for the Western District of Oklahoma. See *Chickasaw Nation v. Fallin*, CIV 11-927 (W.D. Okla.); *OWRB v. United States*, CIV 12-275 (W.D. Okla.). The Applicant responded. On August 17, 2017, the Hearing Examiner denied the motion to dismiss.

B. Applicant's Hearing Evidence

During the hearing, the Applicant presented three days of evidence in support of its permit application as follows.

1. Settlement Agreement

a. *History and Relevance to Sardis Lake*

In August 2016, the State of Oklahoma ("State"), the Choctaw Nation of Oklahoma (Choctaw Nation), the Chickasaw Nation, and the Applicant signed a settlement agreement (Settlement Agreement) concerning, among other things, the Applicant's use of Sardis Lake. *See* Applicant's Exhibit 1. James Couch, Oklahoma City Manager and Oklahoma City Water Utilities Trust (OCWUT) Trustee, testified regarding the history of the Settlement Agreement and its relevance to this permit proceeding. (Tr. 08/22/17, pp. 189–217; Applicant's Exhibit 120.) Mr. Couch was the chief negotiator for Oklahoma City and OCWUT during the settlement process. (Tr. 08/22/17, p. 191:10.) OCWUT is synonymous with Oklahoma City for purposes of this proceeding. (Tr. 08/21/17, p. 14.)

In 1962, the United States Congress conducted a feasibility study that recommended building three reservoirs in the Kiamichi River basin of Southeast Oklahoma – Sardis (originally named Clayton), Hugo, and Tuskahoma – for the primary purposes of flood control and water supply. (Tr. 08/22/17, pp. 193–194; Applicant's Exhibit 97.) According to the feasibility study, Sardis Lake was not economically justified when considered for the single purpose of flood control, but rather, its justification depended upon development for water supply storage. (Tr. 08/22/17, p. 193; Applicant's Exhibit 97, p. 45.) Later that year, pursuant to the Flood Control Act, Congress authorized the United States Army Corps of Engineers (Corps) to construct Sardis Lake in accordance with the study. (Tr. 08/22/17, pp. 192–193; Applicant's Exhibit 103.)

The Corps constructed Sardis Lake in 1982. Prior to construction, pursuant to the 1974 Contract, the predecessor to the OWRB received the right to use the water supply storage capacity in Sardis Lake and agreed to pay the federal government for all costs associated with the water supply storage. (Tr. 08/22/17, pp. 194–197; Applicant's Exhibit 98.) When the OWRB did not meet its payment obligations for Sardis Lake, a lawsuit resulted and a judgment was entered against the State and the OWRB. (Tr. 08/22/17, pp. 197–199; Applicant's Exhibits 99–101.) In 2010, the Applicant and the OCWUT entered a Storage Transfer Agreement with the OWRB, under which the OWRB transferred to the Applicant and the OCWUT all of its rights and obligations under the 1974 Contract, including its right to use the water supply storage capacity of Sardis Lake. (Tr. 08/22/17, p. 200; Applicant's Exhibit 102.)

Following the 2010 Storage Transfer Agreement, the State, the Choctaw Nation, the Chickasaw Nation, and the Applicant entered five years of negotiation that resulted in the signed Settlement Agreement in 2016. (Tr. 08/22/17, pp. 202–203; Applicant's Exhibit 1.) The Nations, Mr. Couch testified, were "worthy adversaries" during negotiation when it came to "protecting future water development in southeast Oklahoma." (Tr. 08/22/17, p. 215:15–19.)

Shortly after the Settlement Agreement was signed, Congress approved the Settlement Agreement in the Water Improvements for the Nation Act. (Tr. 08/22/17, pp. 204–205; Applicant's Exhibit 4.) Pursuant to both the Settlement Agreement and the Settlement Act, the OWRB, the Applicant, and the OCWUT will enter an Amended Storage Contract Transfer Agreement, which will relieve the OWRB of its obligations under the 1974 Contract and transfer

all of the OWRB's interests in the water supply storage capacity of Sardis Lake to the Applicant and the OCWUT, subject to the terms of the Settlement Agreement and the Settlement Act. (Tr. 08/22/17, p. 205; Applicant's Exhibit 1, exhibit 4); Applicant's Exhibit 4.)

b. Restrictions and Relevance to Permit Application

Mr. Couch testified Section 6 of the Settlement Agreement includes provisions for Sardis Lake release restrictions, bypass flow requirements at the downstream point of diversion, City water conservation requirements, and a 20,000 AF set-aside of Sardis Lake storage capacity for local use. (Tr. 08/22/17, pp. 206–209; Applicant's Exhibit 1, § 6.) **J.D. Strong** provided additional testimony regarding the lake level release restrictions. (Tr. 08/23/17, pp. 8–12.) Mr. Strong is the Director of the Oklahoma Department of Wildlife Conservation (ODWC) and former Director of the OWRB, and participated in the negotiation of the Settlement Agreement on behalf of the OWRB. (Tr. 08/23/17, p. 7.) Mr. Strong testified the Settlement Agreement implemented lake level restrictions in Sardis Lake in part to protect the lake fishery. (Tr. 08/23/17, pp. 8–10 Applicant's Exhibits 11, 96.) The ODWC was consulted about the lake level restrictions during the negotiations and the OWRB "probably would not have agreed" to the lake levels if they were not reasonably protective of the Sardis Lake fishery. (Tr. 08/23/17, pp. 10–11.)

Jenny Bywater, Kelly DiNatale, and Chris Browning testified regarding how the Applicant's permit application meets the requirements of the Settlement Agreement and certain OWRB permit requirements.²

Ms. Bywater is a water resources engineer at the engineering firm CDM Smith (CDM) and an expert in water availability analysis and modeling. (Tr. 08/21/17, pp. 202–206; Applicant's Exhibit 119.) Ms. Bywater testified regarding her creation of the Kiamichi Basin Hydrology Model (Kiamichi Model) using a dynamic simulation software called STELLA. (Tr. 08/21/17, pp. 203–204, 207; Tr. 08/24/17, p. 173; Applicant's Exhibits 85–86.) Ms. Bywater created the Kiamichi Model as required by the Settlement Agreement negotiations and to support the Applicant's operational planning. (Tr. 08/21/17, pp. 203, 206; Applicant's Exhibit 1, §§ 1.34, 4.1.7.) The Kiamichi Model was peer-reviewed within CDM and by the Nations' engineers during the Settlement Agreement negotiations. (Tr. 08/21/17, p. 211.) It was not published in articles because publications are not typical of engineering work. (Tr. 08/24/17, p. 172.) The Kiamichi Model splits the Kiamichi River basin into six reaches and measures the inflows and outflows of Sardis, Hugo, Atoka, McGee, and Stanley Draper Lakes. (Tr. 08/21/17, p. 209.) This in turn provides the storage volume and lake level elevation of each reservoir. (Tr. 08/22/17, pp. 8–9.) The Settlement Agreement requires the OWRB use the Kiamichi Model for the allocation of water and administration of water rights in the Kiamichi River basin. (Applicant's Exhibit 1, §§ 5.3.1.2.5.6, 5.3.1.2.5.7.)

Ms. Bywater explained at length the variables and logic statements she used to adapt the STELLA software to the Kiamichi Model. (Tr. 08/21/17, pp. 218–222; Tr. 08/22/17, pp. 4–51.) She organized her considerations into three elements: (1) hydrologic data; (2) current water

² Of course, the Settlement Agreement is not a requirement under the four points of law in O.A.C. § 785:20-5-4. Nevertheless, because any permit issued by OWRB to the Applicant must conform to Section 6 of the Settlement Agreement to be enforceable by the Applicant, considerable time was spent discussing the Settlement Agreement during the Hearing.

rights; and (3) restrictions per the Settlement Agreement. (Tr. 08/21/17, pp. 212–213.) Throughout her testimony, Ms. Bywater employed numerous hypotheticals and examples. Elements one and two are explained below in Part III.B.2 regarding availability of unappropriated water.

Regarding the third element of the Kiamichi Model, Ms. Bywater testified about how she incorporated the Settlement Agreement’s restrictions. (Tr. 08/22/17, pp. 23–43; Applicant’s Exhibit 1, § 6.) When the Applicant diverts, several conditions must be met:

- First, the Kiamichi Model requires 50 cfs to be flowing downstream past the point of diversion at Moyers Crossing, where the Applicant will install measuring devices, when the Applicant is diverting water. (Tr. 08/22/17, pp. 23–24; *see* Applicant’s Exhibit 1, §§ 1.15, 6.1.5.2.) In creating this logic statement, Ms. Bywater determined the Kiamichi River was generally a gaining stream. (Tr. 08/22/17, pp. 24–27.) If the Kiamichi River is a losing stream between Sardis Lake and Moyers Crossing during drought periods, the Applicant must release sufficient water from Sardis Lake to maintain the 50 cfs bypass at Moyers Crossing when it is diverting water. (Tr. 08/24/17, pp. 176–183.)
- Second, the Kiamichi Model requires Sardis Lake to be at 595 feet mean sea level (MSL) from September 1 through March 31 and 599 feet MSL from April 1 through August 31 pursuant to the Settlement Agreement’s baseline lake level restrictions. (Tr. 08/22/17, pp. 28–30; Applicant’s Exhibit 129; *see* Applicant’s Exhibit 1, § 6.1.8.) During drought conditions, however, the lake level restrictions relax according to three different tiers. (Tr. 08/22/17, pp. 31–41; Applicant’s Exhibits 11, 130; *see* Applicant’s Exhibit 1, § 6.1.8.2.) Ms. Bywater explained the purpose of the drought condition provisions was to ensure the Applicant draws down its existing reservoirs in a balanced way during a drought that does not shift the burden of the withdrawals onto reservoirs located in Southeast Oklahoma (i.e., Atoka, McGee Creek, and Sardis). (Tr. 08/22/17, p. 37.)
- Third, the Kiamichi Model prevents the Applicant from diverting more than 250 cfs at any time. (Tr. 08/22/17, pp. 41–42; *see* Applicant’s Exhibit 1, § 6.1.5.1.) Ms. Bywater explained if the City diverted its maximum proposed permitted amount of 115,000 AFY, on average it would only divert 159 cfs. (Tr. 08/22/17, p. 42.) The 250 cfs allowance provides flexibility for the City to divert more during wetter months. (Tr. 08/22/17, pp. 42–43.)
- Fourth, the Kiamichi Model prevents the Applicant from diverting more than 115,000 AFY by tallying its withdrawals. (Tr. 08/22/17, p. 43; *see* Applicant’s Exhibit 1, § 6.1.2.)

Mr. DiNatale is President of DiNatale Water Consultants and a professional engineer with a specialty in water resources, planning, supply, and quality. (Tr. 08/23/17, pp. 76–78; Applicant’s Exhibit 121.) Mr. DiNatale testified regarding his Lake Level Release Restriction Accounting Form (Accounting Spreadsheet), which tracks City reservoir elevations and storage using United States Geological Survey (USGS) data. (Tr. 08/23/17, pp. 80–82, 106; Applicant’s Exhibits 8–10.) Mr. DiNatale created the Accounting Spreadsheet as required by the Settlement Agreement negotiations and to support the Applicant’s operational planning. (Tr. 08/23/17, pp. 79–80; Applicant’s Exhibits 1, § 6.1.8.3.3, and 7.) The Accounting Spreadsheet was peer-reviewed by the Nations’ engineers during the Settlement Agreement negotiations. (Tr. 08/23/17, pp. 86–87.)

Mr. DiNatale created three versions of the Accounting Spreadsheet. (Tr. 08/23/17, pp. 80–81.) First, he created a blank version with formulas that the Applicant will use to measure its lake level elevations in order to comply with the Settlement Agreement. (Tr. 08/23/17, p. 80; Applicant’s Exhibit 8.) Second, he created a version populated with data from 2012, a dry year, to demonstrate lake level elevations under drought conditions. (Tr. 08/23/17, pp. 80–81; Applicant’s Exhibit 9.) Third, he created a version populated with data from 2015, a wet year, to demonstrate lake level elevations under wet conditions. (Tr. 08/23/17, pp. 80–81; Applicant’s Exhibit 10.)

The Settlement Agreement requires the Applicant to provide the OWRB, with an accounting of its releases and measurement of its diversions and bypasses at Moyers Crossing. (Applicant’s Exhibit 1, § 6.1.6.4.) Mr. DiNatale testified the Accounting Spreadsheet was consistent with the Settlement Agreement’s requirements. (Tr. 08/23/17, pp. 95–96.)

Mr. Browning is the City Utilities Director and oversees the OCWUT which manages water and wastewater services on behalf of the Applicant. (Tr. 08/21/17, p. 12; Applicant’s Exhibit 118.) Mr. Browning testified about the Applicant’s existing water conservation measures and conservation plan for the future. (Tr. 08/21/17, pp. 30–36; Applicant’s Exhibits 113, 114.) Mr. Browning created a summary of the Applicant’s water conservation measures as required by the Settlement Agreement negotiations and to support the Applicant’s operational planning. (Tr. 08/21/17, pp. 30–32, 36–38; Applicant’s Exhibits Applicant’s Exhibit 1, § 6.5.1, 6, 116.) Mr. Browning testified the Applicant’s conservation plans complied with the Settlement Agreement. (Tr. 08/21/17, pp. 37–38.)

2. Availability of Unappropriated Water

Ms. Bywater testified regarding the availability of unappropriated water in the amount applied for by the Applicant.

To reiterate, Ms. Bywater organized her considerations in creating the Kiamichi Model into three elements: (1) hydrologic data; (2) current water rights; and (3) restrictions per the Settlement Agreement. (Tr. 08/21/17, pp. 212–213.) The third element is discussed above in Part III.B.1.b regarding the Settlement Agreement.

a. Precipitation Run-off, Flow, Stream Gauge Measurements

Regarding the first element of the Kiamichi Model, Ms. Bywater testified about how she incorporated USGS hydrologic data, including flow records from the historical Belzoni gauge, precipitation run-off, evaporation from Sardis Lake and offsetting precipitation on Sardis Lake, and spillover when lake elevation is high. (Tr. 08/21/17, pp. 208–209, 213; Tr. 08/22/17, pp. 5–10; Applicant’s Exhibits 29, 85.)

Ms. Bywater explained that precipitation run-off for the Kiamichi River basin is inherently included in the stream flow measurements at the Belzoni gauge. (Tr. 08/22/17, p. 5.) The Belzoni gauge was located directly below the Applicant’s proposed diversion point at Moyers Crossing and measured all run-off from the watershed above the Applicant’s point of diversion. (Tr. 08/21/17, p. 213; 08/22/17, pp. 5–6.) Additionally, Ms. Bywater determined the net precipitation versus net evaporation at Sardis Lake as part of her modeling of Sardis Lake levels in her water availability analysis. (Tr. 08/22/17, pp. 7–8, 77.)

Because flow was the most important variable, Ms. Bywater described in depth her reason for choosing the Belzoni gauge for the flow data. (Tr. 08/21/17, pp. 214–216; Tr.

08/22/17, pp. 65–70, 88–89, 103–104, 124; Tr. 08/24/17, p. 198.) The Belzoni gauge provided 45 years of varying historical data between 1926 and 1971, which pre-dated the construction of Sardis Lake and, thus, showed how the Kiamichi River basin operated under natural stream conditions. (Tr. 08/21/17, pp. 214–216.) The 45 years of data included wet years and multiple droughts, and the engineering representatives of the City, the Nations, and the OWRB during the Settlement Agreement negotiations all thought it was representative of the basin and appropriate to use in the Kiamichi Model. (Tr. 08/24/17, p. 174:9–13.) If she had chosen a contemporary stream gauge, Ms. Bywater explained, it would have provided fewer years of data and required backing out the hydrologic effects of current, post-Sardis operating conditions and then adding back in the hydrologic effects of future operating conditions resulting from the operation of the City’s permit. (Tr. 08/22/17, p. 66.) Stated differently, by using pre-Sardis historical stream data, the hydrologic effects of Sardis operations from 1982 through the present do not need to be deducted from the model, thereby enabling the model to reflect the full hydrologic effects on the Kiamichi River from future operations under the City’s permit. (*Id.*) Using historical stream data for the purpose of determining water availability is a common practice in water modeling. (Tr. 08/22/17, p. 124; Tr. 08/24/17, p. 174.)

Once the Kiamichi Model was created, Ms. Bywater input the relevant hydrologic data, modifying the unit and time measurements for consistency. (Tr. 08/21/17, pp. 218–220; Applicant’s Exhibit 29.)

Anthony Mackey, the OWRB Permitting Manager, testified the Kiamichi Model complies with the four points of Oklahoma water law for water appropriation from a stream. (Tr. 08/23/17, pp. 170–171.)

b. Domestic and Appropriative Uses

Regarding the second element of the Kiamichi Model, Ms. Bywater testified about how she incorporated local withdrawal for domestic and appropriative uses. (Tr. 08/22/17, pp. 11–20; Applicant’s Exhibits 32, 85–86.)

First, Ms. Bywater used OWRB stream water permit data to account for existing appropriative uses. (Tr. 08/22/17, pp. 14–18; Applicant’s Exhibits 32, 86.) She took a conservative approach in each reach. (Tr. 08/22/17, p. 16:12–16.) For example, even though the permits totaled to 3,414 AFY between Sardis Lake and the point of diversion at Moyers Crossing, she used a conservative estimate of 7,192 AFY for permitted local rights. (Tr. 08/22/17, p. 16.) The Kiamichi Model prioritizes local permitted rights over the Applicant’s proposed diversions. (Tr. 08/22/17, pp. 17–18.)

Second, Ms. Bywater used OWRB’s 6 AFY per 160 acres of drainage guideline to account for domestic uses by applying the 160 acres guideline to the entire Kiamichi River basin. (Tr. 08/22/17, pp. 19–20; Applicant’s Exhibit 86.) Mr. Mackey and **Elise Sherrod**, the OWRB Environmental Program Specialist, confirmed the OWRB domestic set-aside is 6 AFY per household, and one household is estimated to be 160 acres. (Tr. 08/23/17, pp. 160, 168–169.) Again, Ms. Bywater took a conservative approach that assumed a maximum number of households throughout the Kiamichi River basin, all using their allotted 6 AFY, even though this area is not fully developed, not all users use their allotment, and not all of the land in the Kiamichi River basin is riparian. (Tr. 08/22/17, p. 20.)

Ms. Bywater testified the Applicant's proposed appropriation of 115,000 AFY at Moyers Crossing would not interfere with domestic or existing appropriative uses in the Kiamichi River basin. (Tr. 08/22/17, p. 47.) Mr. Mackey and Ms. Sherrod agreed. (Tr. 08/23/17, pp. 156, 170; Represented Protestants' Exhibit 3.)

c. 20,000 AF Set-Aside

Ms. Bywater also testified about how she incorporated into the Kiamichi Model the 20,000 AF set-aside in Sardis Lake, and a 90 million gallons per day (mgd) flow requirement below Hugo Lake as a water quality delivery under the Red River Compact. (Tr. 08/22/17, pp. 12–14, 20–21, 90; Applicant's Exhibit 86.) Ms. Bywater testified the Applicant's proposed appropriation of 115,000 AFY at Moyers Crossing would not interfere with the 20,000 AF set-aside at Sardis Reservoir. (Tr. 08/22/17, pp. 47–48.) Mr. Mackey and Ms. Sherrod agreed. (Tr. 08/23/17, pp. 156, 157; Represented Protestants' Exhibit 3.)

Mr. Mackey and Ms. Sherrod testified the Kiamichi Model was sufficient to evaluate water availability under Oklahoma law. (Tr. 08/23/17, pp. 155, 170–171.) Ms. Bywater testified that, based on the Kiamichi Model, there was unappropriated water available in the amount of 115,000 AFY. (08/22/17, p. 44.)

3. Present and Future Need

a. Population Projections

Douglas Jeavons testified regarding the population projections for the area served by the Applicant. (Tr. 08/21/17, p. 85.) Mr. Jeavons is a director of BBC Research & Consulting and an expert in the field of water resource economics and demographics. (Tr. 08/21/17, pp. 82–85; Applicant's Exhibit 123.) In assisting with the Settlement Agreement, Mr. Jeavons reviewed and critiqued two existing population projections from the 2009 Regional Raw Water Supply Study for Central Oklahoma (Regional Raw Water Supply Study) and the 2012 Oklahoma Comprehensive Water Plan Update. (Tr. 08/21/17, pp. 85–86; Applicant's Exhibits 50, 71.) Regarding the 2009 Regional Raw Water Supply Study population projection, Mr. Jeavons expressed concerns about the theoretical basis and short historical timeframe used for the projection. (Tr. 08/21/17, pp. 87–88; Applicant's Exhibit 57.) For example, based on the Census Bureau's 2015 estimates, Oklahoma City had already grown more than 50 percent of the growth the Regional Raw Water Supply Study projected by 2060. (Tr. 08/21/17, pp. 92–93.) Regarding the 2012 Oklahoma Comprehensive Water Plan Update, Mr. Jeavons expressed concerns about the underlying Oklahoma Department of Commerce municipal-level population forecasts. (Tr. 08/21/17, pp. 88–94; Applicant's Exhibit 57.)

Because Mr. Jeavons had concerns about the two existing population projections, he conducted his own population projections for Oklahoma City and the surrounding service area. (Tr. 08/21/17, p. 94; Applicant's Exhibit 57.)

First, Mr. Jeavons developed three alternative population projections for Oklahoma City, based on different underlying data. (Tr. 08/21/17, pp. 95–101; Applicant's Exhibits 57, 59–61.) His population projection for Oklahoma City is between 864,000 and 992,900 by 2060. (Tr. 08/21/17, pp. 96:15, 98:7; Applicant's Exhibit 57, p. 17.)

Second, Mr. Jeavons developed two alternative population projections for the base load cities. The base load cities are seven smaller surrounding municipalities (Blanchard, Cashion, Newcastle, Purcell, The Village, Tuttle, and Warr Acres) to which Oklahoma City currently

provides wholesale water supplies. (Tr. 08/21/17, pp. 101–104; Applicant’s Exhibit 57.) His population projection for the base load cities is between 68,900 and 77,400 by 2060. (Tr. 08/21/17, pp. 103:19, 104:10; Applicant’s Exhibit 57, p. 17.)

Third, Mr. Jeavons developed two alternative population projections for five of the nine regional cities and water providers who participated in the 2009 Regional Raw Water Supply Study. (Tr. 08/21/17, pp. 104–106; Applicant’s Exhibit 57.) The nine regional participants included the Central Oklahoma Water Resources Authority (COWRA), Chickasha, Del City, Edmond, Midwest City, Moore, Norman, Seminole, and Shawnee. (Applicant’s Exhibit 57.) The five regional participants Mr. Jeavons analyzed – Del City, Edmond, Midwest City, Moore, and Norman – are located within the Oklahoma City metropolitan area and regional transportation planning area. (Tr. 08/21/17, p. 104.) His population projection for the regional participants is between 485,700 and 531,400 by 2060. (Tr. 08/21/17, pp. 105:22, 106:3; Applicant’s Exhibit 57, p. 17.) As testified by Mr. Jeavons and Mr. Samandi, because the nine regional participants provided the OCWUT with their own estimates of their future water supply needs, Mr. Jeavons’s population projections for five of the nine regional participants were not included on the Applicant’s Exhibit 117, “Net Water Demand for 2060 Based on Various Population Projections.” (Tr. 08/21/17, pp. 108, 153–154.)

Thus, Mr. Jeavons’s total population projection for the area served by the Applicant, excepting the nine regional participants, is between 1,418,600 and 1,601,700 by 2060. (Applicant’s Exhibit 57, p. 17; Applicant’s Exhibit 117.)

b. Demand for Water and Proposed Beneficial Use

Mr. Browning, **Sam Samandi**, and **Nathan Madenwald** testified regarding the Applicant’s demand for water and proposed beneficial use for the water. Mr. Samandi is the City Engineering Manager and an expert in municipal raw water supply planning. (Tr. 08/21/17, pp. 133–135; Applicant’s Exhibit 127.) Mr. Madenwald is a civil engineer for the OCWUT. (Tr. 08/23/17, p. 45; Applicant’s Exhibit 126.)

Mr. Browning provided an overview of the Applicant’s current water systems. He testified the OCWUT provides water to a population of approximately 1.3 million. (Tr. 08/21/17, p. 15; Applicant’s Exhibit 81.) Mr. Madenwald testified this includes providing water to several wholesale customers. (Tr. 08/23/17, pp. 53–55; Applicant’s Exhibit 104.) The Applicant draws its water supply from three reservoirs located within the City limits: Lake Overholser, Lake Hefner, and Stanley Draper Reservoir. (Tr. 08/21/17, pp. 17–18; Applicant’s Exhibit 137.) Two systems, in turn, supply water to these reservoirs. (Tr. 08/21/17, pp. 17–18.) The North Canadian River System includes raw water from the North Canadian River stored in Canton Lake, Lake Hefner, and Lake Overholser, and delivers water for treatment at the Hefner and Overholser Water Treatment Plants. (Tr. 08/21/17, pp. 17–18.) The Southeastern Oklahoma System source water originates from the McGee Creek Reservoir and the Atoka Reservoir, and delivers water for treatment at the Stanley Draper Reservoir Water Treatment Plant. (Tr. 08/21/17, pp. 17–18.)

Mr. Browning and Mr. Madenwald testified the Applicant possesses an appropriative right to 80,000 AFY from the North Canadian River System pursuant to Permit 1939-55. (Tr. 08/21/17, p. 22; Tr. 08/23/17, pp. 62–65; Applicant’s Exhibits 74, 141.) Mr. Browning, Mr. Samandi, and Ms. Bywater testified the dependable yield – i.e., the amount of water that would be reliably delivered through a water transportation storage conveyance system – is 50,000 AFY.

(Tr. 08/21/17, pp. 22–23, 147–149; Tr. 08/22/17, pp. 46–47.) Mr. Browning and Mr. Samandi testified the 30,000 AFY loss was due to evaporation, and cited a study done by the engineering firm Smith Roberts Baldischwiler (SRB) that confirms this decline in yield. (Tr. 08/21/17, pp. 49–50, 147–149; Applicant’s Exhibit 24.) Mr. Samandi also testified in extreme drought, the yield is as low as 23,075 AFY. (Tr. 08/21/17, p. 149.)

Mr. Browning and Mr. Madenwald testified the Applicant possesses an appropriate right to 131,000 AFY from the Southeast System pursuant to Permits 1954-613, 1980-48, and P73-282D (Tr. 08/21/17, p. 26; Tr. 08/23/17, pp. 55–62; Applicant’s Exhibits 75, 76, 138–140.) Mr. Browning testified the dependable yield is 131,000 AFY. (Tr. 08/21/17, p. 26.)

Thus, Mr. Browning testified the total dependable yield for the Applicant is currently 181,000 AFY. (Tr. 08/21/17, p. 26.)

Mr. Browning and Mr. Samandi testified that in 2003 the engineering firm Montgomery Watson Harza (MWH) evaluated the future needs for the Applicant and surrounding regional cities in its Water Master Plan Report. (Tr. 08/21/17, p. 28, 136–139; Applicant’s Exhibits 67–70.) MWH determined a minimum additional 74,000 AFY would be necessary by the year 2051. (Tr. 08/21/17, pp. 139–140; Applicant’s Exhibit 70, p. 36.) Accordingly, Mr. Browning and Mr. Samandi testified, the Applicant applied for 80,000 AFY in its original permit application. (Tr. 08/21/17, pp. 27, 140; Applicant’s Exhibit 13.)

Mr. Browning and Mr. Samandi testified that in 2009 the engineering firm CDM updated the 2003 Water Master Plan Report in its Regional Raw Water Supply Study. (Tr. 08/21/17, pp. 29, 140, 153; Applicant’s Exhibit 71.) CDM determined an additional 129,562 AFY would be necessary by the year 2060 (the 80,000 AFY pending in the original application plus an additional 49,562 AFY). (Applicant’s Exhibit 71, p. 28.) Mr. Samandi explained the increased reported need was the result of increased growth in and around Oklahoma City combined with a move by the nine regional cities and water providers to whom the OCWUT provides wholesale water supplies away from reliance on groundwater supply. (Tr. 08/21/17, pp. 153–154.) This latter effect, Mr. Samandi explained, was the result of declining groundwater yield and a stricter arsenic standard in drinking water regulations. (Tr. 08/21/17, pp. 154–155.) *See also supra* Part III.B.3.d. Accordingly, Mr. Browning testified, the Applicant applied for 136,000 AFY in its first amended permit application. (Tr. 08/21/17, pp. 29; Applicant’s Exhibit 14.)

Mr. Browning and Mr. Couch testified that as a result of the Settlement Agreement in 2016, the Applicant reduced the amount requested to 115,000 AFY in its second amended permit application. (Tr. 08/21/17, pp. 30; Tr. 08/22/17, p. 216; Applicant’s Exhibit 15.)

Based on Mr. Jeavons’s population projections and increased requests for future water supply from the OCWUT by the nine regional cities and water providers, Mr. Samandi testified the total net water demand increase for 2060 was between 156,256 AFY and 184,516 AFY. (Tr. 08/21/17, p. 162:12–20; Applicant’s Exhibit 117.) Mr. Samandi calculated these numbers based on the difference between demand and dependable yield. (Tr. 08/21/17, pp. 161–162.)

c. Efficiency and Feasibility of the Proposed Works

Mr. Samandi, Mr. Browning, Mr. Madenwald, **Brent Hauser**, and **Marc Long**, testified regarding the efficiency and feasibility of the works proposed to place the water to beneficial use and the Applicant’s commitment to meeting the timeline for construction. Mr. Hauser is the Systems Engineer at CDM in charge of overseeing the design and construction of the Second

Atoka Pipeline and the Kiamichi Pipeline. (Tr. 08/22/17, pp. 141–145; Applicant’s Exhibit 122.) Mr. Long is the Project Manager at SRB in charge of performing land acquisition and engineering studies for the Kiamichi Pipeline at Moyers Crossing. (Tr. 08/23/17, pp. 18–19; Applicant’s Exhibit 125.)

Mr. Samandi provided an overview of the Applicant’s existing water works. Currently, water is pumped by six pump stations through a 60-inch concrete pipeline (Existing Atoka Pipeline) from the Atoka Reservoir to the Stanley Draper Reservoir, and by one pump station through the McGee Creek Pipeline from the McGee Creek Reservoir to the Atoka Reservoir. (Tr. 08/21/17, pp. 145–146.)

Mr. Samandi then explained the foundation for the proposed water works. In the 2009 Regional Raw Water Supply Study, CDM analyzed four different options for diverting the water from the Kiamichi River basin, considering availability, need, and cost. (Tr. 08/21/17, pp. 140–142; Applicant’s Exhibit 71.) In its 2014 Southeast Oklahoma Raw Water Supply System Final Report Conceptual Plan (2014 Conceptual Plan), CDM concluded that to pump its proposed permitted water the Applicant would need to construct six new pump stations and a 72-inch welded steel pipeline (Second Atoka Pipeline) parallel to the Existing Atoka Pipeline, in addition to two new pump stations and a 72-inch welded steel pipeline from the Kiamichi River to the Atoka Reservoir (Kiamichi Pipeline). (Tr. 08/21/17, pp. 143–145; Applicant Exhibit 72.)

Mr. Hauser testified regarding the preliminary, conceptual review of CDM’s proposed operations. Mr. Hauser shepherds eight local engineering companies that are responsible for different reaches of the Second Atoka Pipeline and the Kiamichi Pipeline and pump stations. (Tr. 08/22/17, p. 144.) Mr. Hauser explained that, following the 2014 Conceptual Plan, CDM created a 2017 Southeast Oklahoma Raw Water Supply Operations and Hydraulics Modeling Report (2017 Modeling Report). (Tr. 08/22/17, p. 153; Applicant’s Exhibit 23.) In this 2017 Modeling Report, CDM analyzed the configuration, construction sequencing, operation, design, and capital cost regarding the construction and rehabilitation of the pipelines necessary to deliver the proposed permitted water. (Tr. 08/22/17, pp. 153–159; Applicant’s Exhibit 23.) Mr. Hauser provided the design stage of the Second Atoka Pipeline is 65 percent complete and construction could begin in August 2018; the design stage of the Kiamichi Pipeline is preliminary conceptual and its construction is linked to terms in the Settlement Agreement. (Tr. 08/22/17, pp. 155–159.)

In addition, Mr. Hauser explained CDM created a 2017 Memo regarding the Preliminary Conceptual Design of the Kiamichi River Diversion Facility (2017 Memo). (Tr. 08/22/17, p. 146; Applicant’s Exhibit 26.) In this 2017 Memo, CDM summarized its investigation of five potential points of diversion within the vicinity of Moyers Crossing, its preliminary preference for one siting location, and the further necessary modeling. (Tr. 08/22/17, pp. 147–151; Applicant’s Exhibit 26.)

Mr. Samandi and Mr. Hauser testified, in addition, the 2017 Modeling Report and the 2017 Memo included modifications to the proposed works resulting from the Settlement Agreement requirements. (Tr. 08/21/17, p. 150; Tr. 08/22/17, pp. 157.)

Mr. Long testified in more detail to the Moyers Crossing diversion intake structure and the section of the Kiamichi Pipeline immediately connected to it. Mr. Long and his firm analyzed the geography and properties around Moyers Crossing to determine an alignment corridor and identify potential easements and right-of-way properties. (Tr. 08/23/17, pp. 20–25; Applicant’s Exhibits 92–95).

Mr. Madenwald picked up where Mr. Long left off and testified regarding the Applicant's existing easements beyond Moyers Crossing. (Tr. 08/23/17, pp. 47–51; Applicant's Exhibits 88, 90.) Mr. Madenwald identified the Applicant's easements for the McGee Creek Pipeline and the Existing Atoka Pipeline, and then explained how there would be sufficient parallel room in those corridors for the Kiamichi Pipeline and the Second Atoka Pipeline, respectively. (Tr. 08/23/17, pp. 47–51.)

Both Mr. Hauser and Mr. Long testified they had not encountered any fatal flaws regarding the proposed works. (Tr. 08/22/17, p. 152; Tr. 08/23/17, p. 25)

Mr. Browning, Mr. Samandi, and Mr. Hauser testified regarding the costs of the proposed works, based on the CDM 2017 Modeling Report. (Tr. 08/21/17, p. 39; Applicant's Exhibit 23.) The approximate cost to build the Second Atoka Pipeline is \$584 million; the approximate cost to build the Kiamichi Pipeline and diversion facility is \$190 million; and the approximate cost to rehabilitate the Existing Atoka Pipeline is \$454 million. (Tr. 08/21/17, pp. 40–41, 151–152; Tr. 08/22/17, p. 158.)

Mr. Browning testified the Applicant has the financial capacity to pay for this capital project because it has an AAA bond rating, the backing of public officials to set the rates appropriately, and an approved long-term capital program. (Tr. 08/21/17, pp. 41–45; Applicant's Exhibits 78–79.)

d. Availability of Alternative Sources, Including Groundwater

Mr. Browning, Mr. Samandi, and Ms. Bywater testified regarding the availability of alternative sources of water.

Mr. Browning, Mr. Samandi, and Ms. Bywater testified the dependable yield of the Applicant's North Canadian River water rights is 50,000 AFY, i.e., 30,000 AFY less than the Applicant's North Canadian River Permit for 80,000 AFY. (Tr. 08/21/17, pp. 22–23, 147–149; Tr. 08/22/17, pp. 46–47.)

Mr. Samandi explained that in the 2003 Water Master Plan Report MHW evaluated four surface water supply alternatives for the Applicant. (Tr. 08/21/17, pp. 138–139; Applicant's Exhibit 67.) The three options, other than the Kiamichi River basin, were dismissed because of poor water quality and accompanying high costs of treatment. (Tr. 08/21/17, p. 139.)

In addition, to reiterate, Mr. Samandi testified due to declining yield and a stricter arsenic standard in drinking water regulations, groundwater was not a productive alternative source of water. (Tr. 08/21/17, pp. 154–155.) Mr. Samandi cited a USGS groundwater study which concluded groundwater pumping was not sustainable for more than 41 years if every landowner with a potential well in each acre in the Central Oklahoma aquifer exercised their temporary right to pump at a rate of 2 AFY. (Tr. 08/21/17, pp. 155–157; Applicant's Exhibit 56.) Mr. Samandi also testified the declining yield of the Central Oklahoma aquifer was causing the Applicant's municipal and wholesale customers to increase their reliance on water supplied by the Applicant under its stream water permits. (Tr. 08/21/17, pp. 153–154.) Thus, in Mr. Samandi's opinion, the Central Oklahoma aquifer provided a finite supply of water that was not renewable and therefore not sustainable nor reliable for Oklahoma City's municipal use. (Tr. 08/21/17, pp. 157–158.)

4. Interference with Domestic and Existing Appropriative Uses

As explained above in Part III.B.2.b regarding availability of unappropriated water, Ms. Bywater testified there should be no interference with domestic and existing appropriative uses. She made conservative assumptions and prioritized these local uses before any diversion by the Applicant. Ms. Bywater testified local water rights would have priority for the Kiamichi River's natural flows; the Applicant would have priority for specific releases out of Sardis; and the 20,000 AF set-aside is in addition to and separate from those rights. (Tr. 08/22/17, p. 18.)

Because the Kiamichi Model incorporates and prioritizes all local uses based on stream water permit data and the 6 AFY per 160 acres guideline for the entire basin, changes to the stream flow of the Kiamichi River would not affect local uses. Nevertheless, Ms. Bywater clarified how stream flows in the Kiamichi River basin would be affected by the Applicant's proposed diversion:

- Stream flows upstream from Sardis Lake would not be affected.
- Tributaries of the Kiamichi River would not be affected.
- Stream flows between Sardis Lake and Moyers Crossing would not be affected unless the Applicant made releases from Sardis Lake. In those cases, there would be more stream flow than there would naturally be otherwise.
- Stream flows downstream from Moyers Crossing could experience a reduction or an increase depending on the time of year, but would be guaranteed to be at least 50 cfs (i.e., 32 million gallons per day) by the measuring devices located at Moyers Crossing when the Applicant was diverting. For example, when the Applicant diverts from the natural Kiamichi River flow without making releases from Sardis, the stream flow could be reduced but would be at least 50 cfs. When the Applicant diverts while making releases from Sardis, the stream flow below Moyers Crossing could be increased. During drought, the stream flow below Moyers Crossing would be increased because, where the Kiamichi River below Moyers Crossing previously would naturally diminish or go dry, there would now be 50 cfs or more when the Applicant was diverting.

(Tr. 08/24/17, pp. 177–182; Applicant's Exhibit 86.) Relatedly, Ms. Bywater testified in a period of extreme drought the Kiamichi River would be better off as a result of this proposed operation. (Tr. 08/24/17, pp. 181–182.)

In addition, the OWRB staff has determined “[i]n all three segments [of the Kiamichi River,] domestic and existing appropriative uses could be met with a surplus of water remaining. . . . Therefore, no interference is anticipated.” (Protestants' Exhibit 3, p. 3.)

5. Out-of-Stream System Use

Ms. Bywater and Mr. Couch testified regarding out-of-stream system use since, here, the permit application is for transportation and use of water outside the stream system where the water originates.

As explained above in Part III.B.2.b regarding availability of unappropriated water and Part III.B.4 regarding interference with domestic and existing appropriative uses, Ms. Bywater testified there should be no interference with domestic and existing appropriative uses. Ms. Bywater also testified regarding the benefit of the 50 cfs bypass to the Kiamichi River during

times of drought. (Tr. 08/24/17, pp. 176–183.) Mr. Couch testified that the 20,000 AF set-aside of Sardis Lake storage capacity pursuant to section 785:20-5-5(b)(3) is for local use only. (Tr. 08/22/17, pp. 201, 215.) Mr. Couch also testified the Applicant does not intend and has never intended to sell water obtained through this permit application to the State of Texas. (Tr. 08/22/17, p. 209.)

In addition, the OWRB staff has determined “no interference with future needs [in the Kiamichi basin] is anticipated” even after projecting surface water permits in the basin of 337,339 AFY in 2060 with an in-basin reserve of 154,268 AFY. (Protestants’ Exhibit 3, p. 3.) These 2060 projections are substantially higher than existing uses in the basin and are thus very conservative. (See Applicant’s Exhibit 86.)

6. Environmental Permitting Pathway

Mr. Couch, Mr. Strong, Mr. Samandi, and **Paul Leonard** testified regarding the work the Applicant has already done, and has yet to do, regarding environmental concerns. Mr. Leonard is a senior expert in water resources at the engineering firm Brown and Caldwell and an expert in aquatic environmental permitting. (Tr. 08/23/17, pp. 118–121; Applicant’s Exhibit 124.)

Mr. Couch testified the Applicant considered protection of endangered mussels in the Kiamichi River in the course of the Settlement Agreement negotiations by consulting an instream flow report by Charles Jones and William L. Fisher (Jones and Fisher Report). (Tr. 08/22/17, pp. 211–212, 214; Applicant’s Exhibit 37.) Protection of these mussels was the basis for the 50 cfs bypass. (Tr. 08/22/17, p. 214; Applicant’s Exhibit 37, p. 18.)

Mr. Strong, to reiterate, testified the Settlement Agreement implemented lake level restrictions in Sardis Lake in part to protect the lake fishery and those restrictions were reasonably protective. (Tr. 08/23/17, pp. 8–10; Applicant’s Exhibits 11, 96.)

Mr. Samandi testified regarding the preliminary environmental screening due diligence the Applicant has done. (Tr. 08/22/17, p. 164.) The environmental firm Enercon Services, Inc., delineated Section 404 wetlands and other potentially jurisdictional waters of the United States within the Existing Atoka Pipeline and proposed Second Atoka Pipeline right-of-way. (Tr. 08/22/17, pp. 164–165; Applicant’s Exhibits 131–136.)

Mr. Leonard testified regarding the environmental permitting and analysis the Applicant would need to satisfy if the OWRB grants its permit application. (Tr. 08/23/17, pp. 124–131.) He stated the Applicant would need to obtain a Corps permit and comply with multiple environmental statutes, such as the National Environmental Policy Act, the Endangered Species Act, the Clean Air Act, and the National Historic Preservation Act. (Tr. 08/23/17, pp. 125–126.)

Nevertheless, Mr. Leonard explained the existence of considerable future steps was common for cities and counties in the Applicant’s position. (Tr. 08/23/17, pp. 124–125.) He did not foresee any fatal flaws; rather, he was confident there was a feasible permitting pathway forward that would enable this project to be constructed and operated. (Tr. 08/23/17, pp. 124, 128, 130.)

C. Represented Protestants’ Hearing Evidence

During the hearing, the Protestants presented one day of evidence in opposition to the permit application. Their primary concerns were as follows.

1. Environmental Concerns

Dr. Caryn Vaughn, Ph.D., testified regarding environmental concerns. Dr. Vaughn is a professor at the University of Oklahoma and an expert in mussels and the scientific method. (Tr. 08/24/17, pp. 21, 41.) She is not an engineer and has never conducted an instream flow study. (Tr. 08/24/17, p. 78.)

Beforehand, the Applicant orally moved for the Hearing Examiner to reconsider her denial of the Applicant's pre-hearing motion in limine to exclude Dr. Vaughn's testimony. (Tr. 08/24/17, pp. 7–10.) The Applicant argued any testimony Dr. Vaughn presented regarding whether the Kiamichi was a losing stream between Sardis Lake and Moyers Crossing – which was the reason cited in the Hearing Examiner's order for allowing Dr. Vaughn's testimony – was immaterial based on the Applicant's case-in-chief. (Tr. 08/24/17, pp. 7–8.) The Applicant had presented three days of evidence that its proposed diversions at Moyers Crossing would only occur when a 50 cfs bypass occurred. (Tr. 08/24/17, pp. 8–9.) Represented Protestants argued rebuttal. The Hearing Examiner denied the Applicant's oral motion. (Tr. 08/24/17, pp. 13–14.) The Applicant continued to raise a standing objection throughout Dr. Vaughn's testimony. (*See, e.g.*, Tr. 08/24/17, pp. 28:18–19, 30:17–31:10, 42:15–16, 45:12–13.)

Dr. Vaughn testified regarding mussel location, populations, and health in the Kiamichi River. According to Dr. Vaughn, mussels need a water temperature of 35°C (95°F) or less to survive, and water temperatures are influenced by water depth and thus water flow. (Tr. 08/24/17, p. 55.) During a drought in 2011, temperatures in the lower Kiamichi River rose above 35°C and Dr. Vaughn worked with the FWS and the Corps to release 21 cfs in order to lower the temperatures. (Tr. 08/24/17, p. 56.) However, it took 25 days before the release reached the lower Kiamichi River, and then it was too late for the mussels. (Tr. 08/24/17, p. 56.)

Dr. Vaughn testified regarding a chart she had created depicting the discharge required at Clayton gauge, located directly below Sardis Reservoir, to prevent maximum water temperatures from exceeding 35°C. (Tr. 08/24/17, pp. 61–64; Represented Protestants' Exhibit 33, p. 21.) The chart shows a 50 cfs release from Sardis would be sufficient to keep water temperature below 35°C and protect mussels at Clayton gauge in average air temperatures at or below 39°C (102°F). (Represented Protestants' Exhibit 33, p. 21.) Dr. Vaughn could not speak to whether 50 cfs would be sufficient further down at Moyers Crossing because a similar study has not been conducted there. (Tr. 08/24/17, pp. 64, 68.)

Dr. Vaughn also testified the dam at Hugo Lake, beneath Moyers Crossing, prevents fish from swimming upstream after periods of drought. (Tr. 08/24/17, p. 77.) That also harms mussels, which depend on the fish for their parasitic larvae stage. (Tr. 08/24/17, p. 77.)

Dr. Vaughn admitted that the Jones and Fisher Report, which Mr. Couch testified was the basis for the 50 cfs bypass, states the authors of the report coordinated with her about which mussel beds to include in their instream flow study. (Tr. 08/22/17, pp. 211, 216–217; Tr. 08/24/17, pp. 66–67; Exhibit 37, p. 5.)

2. Availability Concerns

Walter Myrl Redman and **Larinda McClellan** testified regarding domestic use availability concerns. Mr. Redman and Ms. McClellan are Represented Protestants and riparian

landowners on the Kiamichi River and one of its tributaries.³ (Tr. 08/24/17, pp. 120–121, 146, 158; Applicant’s Exhibit 87.) They are concerned the Applicant’s proposed water use would negatively affect their domestic uses of the Kiamichi River for drinking water, cattle watering, and hay irrigation, especially during droughts. (Tr. 08/24/17, pp. 124, 129, 159.)

Dr. Kenneth Roberts, Ph.D., and Debbie Leo testified regarding instream flow availability concerns. Dr. Roberts and Ms. Leo are Represented Protestants and riparian landowners on the Kiamichi River. (Tr. 08/24/17, pp. 81–82, 146; Applicant’s Exhibit 87). They are concerned the Applicant’s proposed water use would negatively affect their recreational uses on the Kiamichi River such as hunting, fishing, canoeing, kayaking, and snorkeling. (Tr. 08/24/17, pp. 105, 146.) Ms. Leo also testified regarding her aesthetic concerns. (Tr. 08/24/17, p. 153.)

3. Methodology and Transparency Concerns

Dr. Vaughn testified, in her experience as an academic researcher, there is a spectrum of reliability and quality to a research project’s findings that requires peer review. (Tr. 08/24/17, pp. 23–24.) Dr. Roberts and Ms. Leo testified regarding their concern over the Applicant’s lack of transparency. (Tr. 08/24/17, pp. 92, 154–156.)

VI. ARGUMENT

Applying the Applicant’s hearing evidence to Oklahoma Stream Water Use Law, the Applicant has more than satisfied the OWRB’s four points of law. Moreover, while the Applicant is sympathetic to the concerns of the Represented Protestants, the issues they raised are either addressed by the Applicant’s evidence or irrelevant to this proceeding.

A. The Applicant Has Satisfied OWRB’s Four Points of Law

1. O.A.C. § 785:20-5-4(a)(1)

Regarding section 785:20-5-4(a)(1), the Applicant has shown unappropriated water is available in the amount applied for.

Ms. Bywater testified the Kiamichi Model considers the mean annual precipitation runoff, the mean annual flow, and stream gauge measurements. *See* O.A.C. § 785:20-5-5(a)(1). She also explained at length how the model considers and prioritizes domestic uses and existing appropriations, and testified the Applicant’s proposed appropriation would not interfere with these existing rights. *See id.* OWRB staff members Mr. Mackey and Ms. Sherrod agreed.

There is no consideration of “other designated purposes” because, as explained above in Part II regarding legal authority, the Kiamichi River basin does not possess a “designated purpose” such as a “scenic river area” or “Outstanding Resource Waters” designation. *See* O.A.C. § 785:20-5-5(a)(1).

Ms. Bywater testified the Kiamichi Model considers the Red River Compact, an interstate stream compact to which the State is a party, by including a 90 mgd water quality flow requirement below Hugo Lake. *See* O.A.C. § 785:20-5-5(a)(1); *see also* 82 O.S. § 1431, sec. 11.04 (Red River Compact) (providing that the Red River Compact Commission, the United

³ The Applicant acknowledges Mr. Redman, Ms. McClellan, Mr. Roberts, and Ms. Leo are riparian landowners on the Kiamichi River or its tributaries based on proof of landownership received during discovery.

States, and the Signatory States may recommend reasonable water quality objectives for the States). Moreover, even if Ms. Bywater had not included a 90 mgd flow requirement below Hugo Lake, the Red River Compact provides Oklahoma shall have “unrestricted use” of water in the subbasin that includes the Kiamichi River. 82 O.S. § 1431, sec. 5.01(a). Consequently, the Applicant’s use of water from the Kiamichi River cannot cause a violation of the Red River Compact.⁴

Ms. Bywater testified the Kiamichi Model considers the 20,000 AF set-aside in Sardis Lake. *See* O.A.C. § 785:20-5-5(b)(3). The model requires the 20,000 AF set-aside before any diversion by the Applicant. This set-aside is in addition to the set-asides for domestic and appropriate uses. *See* O.A.C. § 785:20-5-5(b)(3)(ii).

Mr. Strong testified the ODWC was consulted regarding the Applicant’s proposed lake level management plan and that it is reasonably protective of the Sardis Lake fishery. *See* O.A.C. § 785:20-5-5(b)(3)(iv). The lake level management plan includes detailed drought provisions that protect Sardis Lake levels. *See id.*

Overall, Mr. Mackey and Ms. Sherrod testified that the Kiamichi Model was sufficient to evaluate water availability under Oklahoma law. *See* O.A.C. § 785:20-5-4(a)(1); O.A.C. § 785:20-5-5(a)–(b).

2. O.A.C. § 785:20-5-4(a)(2)

Regarding section 785:20-5-4(a)(2), the Applicant has shown it has a present and future need for the water and the use to which it intends to put the water is a beneficial use.

Mr. Browning testified the Applicant currently provides water to a population of approximately 1,300,000 using a total dependable yield of 181,000 AFY.

Mr. Jeavons testified the population served by the Applicant was expected to reach up to 1,601,700 by 2060. *See* O.A.C. § 785:20-5-5(c)(2). Engineering reports by MWH in 2003 and updated by CDM in 2009 showed the Applicant would need an additional 129,562 AFY by 2060. Mr. Samandi estimated the Applicant would need even more additional water – up to 184,516 AFY – by 2060, based on Mr. Jeavons’s population projections and the requests for future water supply from the nine regional cities and water providers.

Mr. Samandi explained the increased need was the result of growth in and around Oklahoma City combined with a move by the nine regional cities and water providers away from reliance on groundwater supply.

As a result of the 2016 Settlement Agreement, the Applicant reduced the amount requested in its second amended permit application to 115,000 AFY. In other words, the Applicant’s proven actual need is greater than the amount it is requesting in accordance with the Settlement Agreement.

Mr. Samandi, Mr. Browning, Mr. Madenwald, Mr. Hauser, and Mr. Long, testified regarding the efficiency and feasibility of the proposed works, and the Applicant’s commitment to meeting the timeline for construction. *See* O.A.C. § 785:20-5-5(c)(1); O.A.C. § 785:20-9-1.

⁴ It is also reasonable to presume the State would not have entered the Settlement Agreement, and the OWRB staff would have opposed the Applicant’s permit application, if granting the Applicant’s permit application would cause a violation of the Red River Compact.

Engineering reports by CDM and SRB demonstrate tremendous work has already been done regarding the configuration, construction sequencing, operation, design, and capital cost of the pipelines necessary to deliver the proposed permitted water. Mr. Browning testified the Applicant has the financial capacity to pay for this project, and Mr. Hauser and Mr. Long testified they had not encountered any fatal flaws regarding the proposed works.

While the OWRB is not required to consider the availability of alternative sources such as groundwater, *Franco-American Charolaise*, ¶ 3, the Applicant provided testimony from Mr. Browning, Mr. Samandi, and Ms. Bywater, showing alternative sources are unavailable. See O.A.C. § 785:20-5-4(a)(2). Mr. Samandi testified MWH investigated other water supply options which were dismissed because of poor water quality and accompanying high costs of treatment. Mr. Browning, Mr. Samandi, and Ms. Bywater testified the dependable yield of the Applicant's North Canadian River water rights was 30,000 AFY less than the Applicant's North Canadian River Permit. Mr. Samandi testified the Central Oklahoma aquifer was not a sustainable or reliable supply of water for the Applicant. Applicant's Exhibit 117 highlights the dependable yield of the Applicant's existing water rights (including the North Canadian water rights) are woefully insufficient to meet the needs of its customers in 2060 under any plausible future growth scenario.

Thus, considering the population projections, the efficiency and feasibility of the proposed works, and the unavailability of alternative sources, the Applicant's proposed 115,000 AFY is fully justified.

3. O.A.C. § 785:20-5-4(a)(3)

Regarding section 785:20-5-4(a)(3), the Applicant has shown its proposed use does not interfere with domestic or existing appropriative uses.

To reiterate, Ms. Bywater testified there should be no interference with domestic and existing appropriative uses. She made conservative assumptions in the Kiamichi Model and prioritized these local uses before any diversion by the Applicant. Ms. Bywater explained how, in accordance with *Franco-American Charolaise*, ¶ 37, the Applicant would not be able to divert unless there is sufficient water for domestic and existing appropriative uses. She also testified regarding the benefit of the 50 cfs bypass to local users in the Kiamichi River during times of drought.

4. O.A.C. § 785:20-5-4(a)(4)

Regarding section 785:20-5-4(a)(4), the Applicant has shown it meets the provisions of section 785:20-5-6 for transportation of water for use outside the stream system where the water originates.

Again, Ms. Bywater testified there should be no interference with domestic and existing appropriative uses. Mr. Couch testified that the 20,000 AF set-aside of Sardis Lake storage capacity is for local use only, and the Applicant does not intend to sell water obtained through this permit application to the State of Texas. OWRB staff determined no interference with future needs in the Kiamichi basin is anticipated using conservative estimates.

5. O.A.C. § 785:20-5-4(b)

Therefore, because the Applicant has met OWRB's four points of law, the OWRB "*shall approve the application by issuing a permit to appropriate water.*" O.A.C. § 785:20-5-4(b) (emphasis in original).

Moreover, the Applicant has shown how it has complied with all of the requirements of the Settlement Agreement in order to ensure an OWRB permit would be enforceable. Mr. Couch, Mr. Strong, Ms. Bywater, Mr. DiNatale, and Mr. Browning testified regarding the multiple ways the Applicant's permit application meets the requirements of the Settlement Agreement.

B. The Protestants' Concerns Have Been Addressed Or Are Irrelevant

1. Response to Environmental Concerns

As explained above in Part IV.A.I regarding O.A.C. § 785:20-5-4(a)(1), the Oklahoma Stream Water Use Law does not contemplate consideration of environmental purposes, such as instream flow, for streams like the Kiamichi River that have not been designated as a "scenic river area" or "Outstanding Resource Waters." Therefore, as the Applicant argued in its motions to exclude the FWS Letter and the testimony of Dr. Vaughn, environmental concerns are irrelevant at this stage of the permitting process. Similarly, recreational and aesthetic concerns are not contemplated, even for riparian owners like Dr. Roberts and Ms. Leo. *See Franco-American Charolaise*, ¶¶ 9-14. Even if they were, the riparian owners, similar to Dr. Vaughn, provided no evidence about the specific amount of flow they believe are reasonable for those uses.

In pre-hearing motions and hearing arguments, Represented Protestants misinterpreted the meaning of "beneficial use." Beneficial use is a principle used to determine appropriative rights. Here, beneficial use considerations primarily arise in determining whether the Applicant intends to put the water to beneficial use. O.A.C. § 785:20-5-4(a)(2). Consideration of others' existing beneficial uses only arises in the context of determining interference with domestic and existing appropriative uses under section 785:20-5-5(d)(2). For example, if a Protestant in this matter had an existing appropriative right to store stream water in a lake for recreation, fish, and wildlife purposes, then section 785:20-5-5(d)(2) would allow the Hearing Examiner to consider that beneficial use in the context of determining whether interference with that existing appropriative use may result from the Applicant's proposed appropriative right. Put differently, the meanings of "domestic use" and "existing appropriative uses" do not mean any conceivable beneficial use. Rather, "domestic use" is limited to the uses expressly contemplated in its definition, and "existing appropriative uses" is limited by definition to "right[s] acquired under the procedure provided by [Oklahoma] law . . . to apply such water to a specific beneficial use[.]"

Despite the irrelevance of environmental concerns to this permit proceeding, Mr. Couch, Mr. Strong, Mr. Samandi, and Mr. Leonard testified regarding the work the Applicant has already done and will do regarding environmental concerns. Mr. Leonard was confident there was a feasible permitting pathway forward for this project based on his work with numerous similar projects.

Even considering the testimony of Dr. Vaughn, again which the Applicant asserts is irrelevant to the permit process, the Applicant's proposed diversion includes a 50 cfs bypass

requirement (i.e., 32 million gallons per day) that would protect mussel vitality more often and more consistently at most temperatures than their current habitat provides. The detriment to mussels posed by the dam at Hugo Lake is irrelevant to this permit proceeding.

2. Response to Availability Concerns

There was extensive testimony the Applicant is fully honoring the 20,000 AF set-aside in Sardis Lake as required by O.A.C. § 785:20-5-5(b)(3), and the Applicant's water right would be subordinate to the set-aside. Additionally, Ms. Bywater testified to the following:

- 1 million AFY flows past Moyers Crossing on an average annual basis;
- 85–90 percent of this yield would remain in the basin if the Applicant's claim for 115,000 AFY is granted; and
- a "significant amount of water on an average annual basis" would remain after the Applicant's application, the 20,000 AF set-aside, domestic uses, and existing appropriative rights are satisfied.

(Tr. 08/22/17, pp. 137–138.)

3. Response to Methodology and Transparency Concerns

Ms. Bywater testified the Kiamichi Model was peer-reviewed and in accord with industry standards, and Mr. DiNatale testified the Accounting Spreadsheet was peer-reviewed and in accord with industry standards. Ms. Bywater and Mr. DiNatale are engineers who do not typically publish their work in articles. Dr. Vaughn, in contrast, is an academic researcher with different peer-review expectations.

Dr. Roberts and Ms. Leo are correct the Applicant has not yet initiated local permitting and related local consultation regarding the Kiamichi River component of its project. This will occur as part of the lawful permitting process. However, as evidenced by the Settlement Agreement, the Applicant engaged in extensive consultation and negotiation with the Choctaw Nation, whose historical treaty lands encompass Pushmataha County and all the other counties that received notice in this proceeding. As Mr. Couch and Ms. Bywater testified, and as evidenced by the Settlement Agreement, the Choctaw Nation was capably represented in the negotiations by legal counsel and water engineering experts.

4. Response to Public Hearing Concerns

During the public hearing comment phase of the Hearing, Protestants voiced concern the Applicant's proposal to release water from Sardis Lake for diversion and bypass at Moyers Crossing would treat the Kiamichi River as an artificial "pipeline" or "canal."

However, as stated by Dr. Vaughn in her deposition, "basically the Kiamichi River is no longer a natural river. It's no longer a natural river because 25 percent of the flows are held back by Sardis Dam and because the lower part of the river is impounded by Hugo Lake." (Protestants' Exhibit 30, p. 38:1–5.) Moreover, as testified by Ms. Bywater, the Applicant's proposed operations will substantially benefit the Kiamichi River in times of drought: flows between Sardis Lake and Moyers Crossing will benefit from the amount of water released from Sardis Lake for diversion at Moyers Crossing plus the 50 cfs bypass; flows below Moyers Crossing will benefit from the 50 cfs bypass. (08/24/17, pp. 176–180.)

Protestants voiced concern the Applicant's diversion should be from Sardis Lake, not Moyers Crossing.

However, the Settlement Agreement requires the Applicant to divert its water "in the general vicinity of Moyers Crossing." (Applicant's Exhibit 1, § 6.1.3.) The Settlement Agreement was "authorized, ratified, and confirmed" by Congress pursuant to the Choctaw Nation of Oklahoma and the Chickasaw Nation Settlement. (Applicant's Exhibit 4.) Sardis Lake is a federal facility. (Applicant's Exhibits 97, 98, 103.) It would violate federal law for the Applicant to take its water directly from Sardis Lake, and the Corps would be barred from allowing this to occur. Moreover, direct diversion of the Applicant's water from Sardis Lake would result in the loss of the above-described beneficial flows down the Kiamichi River from Sardis Lake to Moyers Crossing and below.

Protestants voiced concern the Applicant would profit from the sale of the Kiamichi River water to its municipal and wholesale customers outside of the Applicant's municipal boundaries.

However, the Applicant is barred by Oklahoma law from profiting from its water sales. 11 O.S. § 37-119(b) (For water sold outside the corporate limits of a municipality, "only those costs that are attributable to maintaining the ability of the municipality to provide water service to the purchaser shall be included in purchaser's rates.").

VII. CONCLUSION

As the Represented Protestants stated in their closing argument, this permit proceeding has evoked deep passions over the sacred resource of water. The Applicant is sympathetic to those passions. Yet, the Applicant has committed the last 14 years to compiling fact-based analyses in support of this permit application. Under Oklahoma law, findings of fact must prevail over emotions.

The Applicant's evidence more than shows unappropriated water is available in the Kiamichi River and Sardis Lake; the Applicant has a present and future need for that water and proposes to put it to beneficial use; and its use will not interfere with domestic and existing appropriative uses. Because the Applicant has satisfied the OWRB's four points of law, the Applicant respectfully requests the Hearing Examiner to recommend granting the permit application.

Respectfully submitted this 1st day of September, 2017.

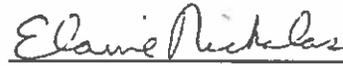
RILEY CARLOCK & APPLEWHITE

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Certificate of Service

The undersigned certifies that on this 1st day of September, 2017, a true and correct copy of the foregoing **APPLICANT'S POST-HEARING BRIEF** was filed and served via regular U.S. Mail, and via e-mail to those who provided e-mail addresses, to the following:



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