IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OKLAHOMA

STATE OF OKLAHOMA, ex rel,	)	
W.A. DREW EDMONDSON,	)	
in his capacity as ATTORNEY GENERAL	)	
OF THE STATE OF OKLAHOMA, et al.	)	
	)	
vs.	)	**Case No. 4:05-CV-329-GKF-SAJ**
	)	
TYSON FOODS, INC., et al.	)	
	)	
Defendants.	)	

DEFENDANT TYSON FOODS, INC.'s JUNE 26, 2008 REQUESTS FOR PRODUCTION OF DOCUMENTS TO PLAINTIFFS

Defendant Tyson Foods, Inc. ("Tyson"), pursuant to Fed. R. Civ. P. 34, requests that the Plaintiffs provide a written response to the following Requests for Production of Documents fully in writing under oath, within thirty (30) days of receipt of same.

INSTRUCTIONS

The following instructions shall apply to these Requests for Production of Documents:

1. These Requests shall be deemed continuing pursuant to the Federal Rules of Civil Procedure to require supplemental responses if the Plaintiffs directly or indirectly acquire additional information between the time the answers are served and the time of trial. Such additional responses shall be served seasonably, but no later than thirty (30) days after such information is received.

2. Requests which cannot be answered in full shall be answered as completely as possible, and incomplete responses shall be accompanied by reasons for the incompleteness of the responses, as well as a statement of whatever knowledge, information, or belief you possess with respect to each unanswered or incompletely answered Request.

3. The following Requests are intended to ascertain information in your possession or available to you by reasonable inquiry. If any Request cannot be answered on personal knowledge, please so state and answer same by whatever information, knowledge or evidence is available, stating its source and the names and addresses of each person consulted. If you are without personal knowledge as to any of the matters called for by any of the following Requests, have the same answered by all persons whom you will call as a witness at the trial of this case.

4. With respect to each Request, in addition to supplying the information requested, you are to identify all documents that support, refer to, or evidence the subject matter of each Request and your answer thereto.

If any or all documents identified herein are no longer in your possession, custody, or control because of destruction, loss, or any other reason, then do the following with respect to each and every such document: (a) describe the nature of the document (e.g., letter or memorandum); (b) state the date of the document; (c) identify the person who sent and received the original and any copies of the document; (d) state in as much detail as possible the contents of the document; and (e) state the manner and date of disposition of the document.

If you contend that you are entitled to withhold from production any or all documents identified herein on the basis of the attorney/client privilege, the work-product doctrine, or other grounds, then do the following with respect to each and every document: (a) describe the nature of the document (e.g., letter or memorandum); (b) state the date of the document; (c) identify the person who sent and received the original and any copies of the document; (d) state the subject matter of the document; and (e) state the basis upon which you contend you are entitled to withhold the document from production.

DEFINITIONS

The following definitions shall apply to these Requests for Production of Documents:

1. If a term is undefined, you shall ascribe the common, dictionary meaning to the term.

2. For purposes of these Requests: (i) the plural shall include the singular and the singular the plural; (ii) one gender shall include the other gender; and (iii) the past tense shall include the present tense and vice versa.

3. The terms "AND" and "OR" are both used in the inclusive sense; both require all information that meets the description of one or more of the disjunctive words or phrases.

4. The terms "RELATE," "RELATED," and "RELATE TO" mean constitutes, refers to, contains, embodies, evidences, reflects, contradicts, refutes, identifies, states, deals with, bears upon, or is in any way connected with the matter described.

5. "YOU," "YOUR," or "YOURSELF" shall include the Plaintiffs and their representative(s).

6. The terms "DOCUMENT," "DOCUMENTS," or "WRITINGS" mean any kind of written, typewritten, printed, recorded, computer produced, or graphic material, however produced or reproduced, including without limitation, agreements, affidavits, instruments, deeds, statements, applications, brochures, drawings, graphs, photographs, microfilms, notes, summaries, memoranda, letters, telegrams, mailgrams, calendars, appointment books, newspaper or periodical articles and/or advertisements, pamphlets, reports, bulletins, prospectuses, summaries or recordings of telephone or other conversations, summaries or recordings of personal conversations, statements, enclosures, diaries, notebooks, minutes, summaries and/or reports of negotiations or investigations, analyses, projects, books, ledger sheets, accounts,

journals, checks, receipts, publications, contracts, records, tapes, transcripts of records, video or audio recordings, computer printouts and business records and further includes without limitation originals, copies, drafts and/or any other WRITINGS or magnetic media such as tape or computer disk.

REQUESTS FOR PRODUCTION OF DOCUMENTS

REQUEST FOR PRODUCTION NO. 1: Please produce all documents reflecting, referring to, or relating to any negotiations, conferences, meetings, workshops, memoranda of understanding, agreements, treaties, or compacts concerning natural resources or water rights between or with the State of Oklahoma and any Indian Tribe or Native American Tribe.

REQUEST FOR PRODUCTION NO. 2: Please produce all documents reflecting, referring to, or relating to any negotiations, conferences, meetings, workshops, memorandums of understanding, agreements, treaties, or compacts related to natural resources or water rights in the Illinois River Watershed between or with the State of Oklahoma or you and the Cherokee Tribe.

REQUEST FOR PRODUCTION NO. 3: Please produce all documents reflecting, referring to, or relating to the February 2000 legal opinion (including the legal opinion itself) of the law firm of Ryley, Carlock, and Applewhite regarding water rights claims made by the Indian Tribes discussed in the Oklahoma Water Resources Board publication attached hereto as Exhibit A.

Respectfully Submitted,

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I certify that on the 26th day of June 2008, I electronically transmitted the foregoing documents to following:

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I also hereby certify that I served the attached documents by United States Postal Service, proper postage paid, on the following who are not registered participants of the ECF System:

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Secretary of the Environment
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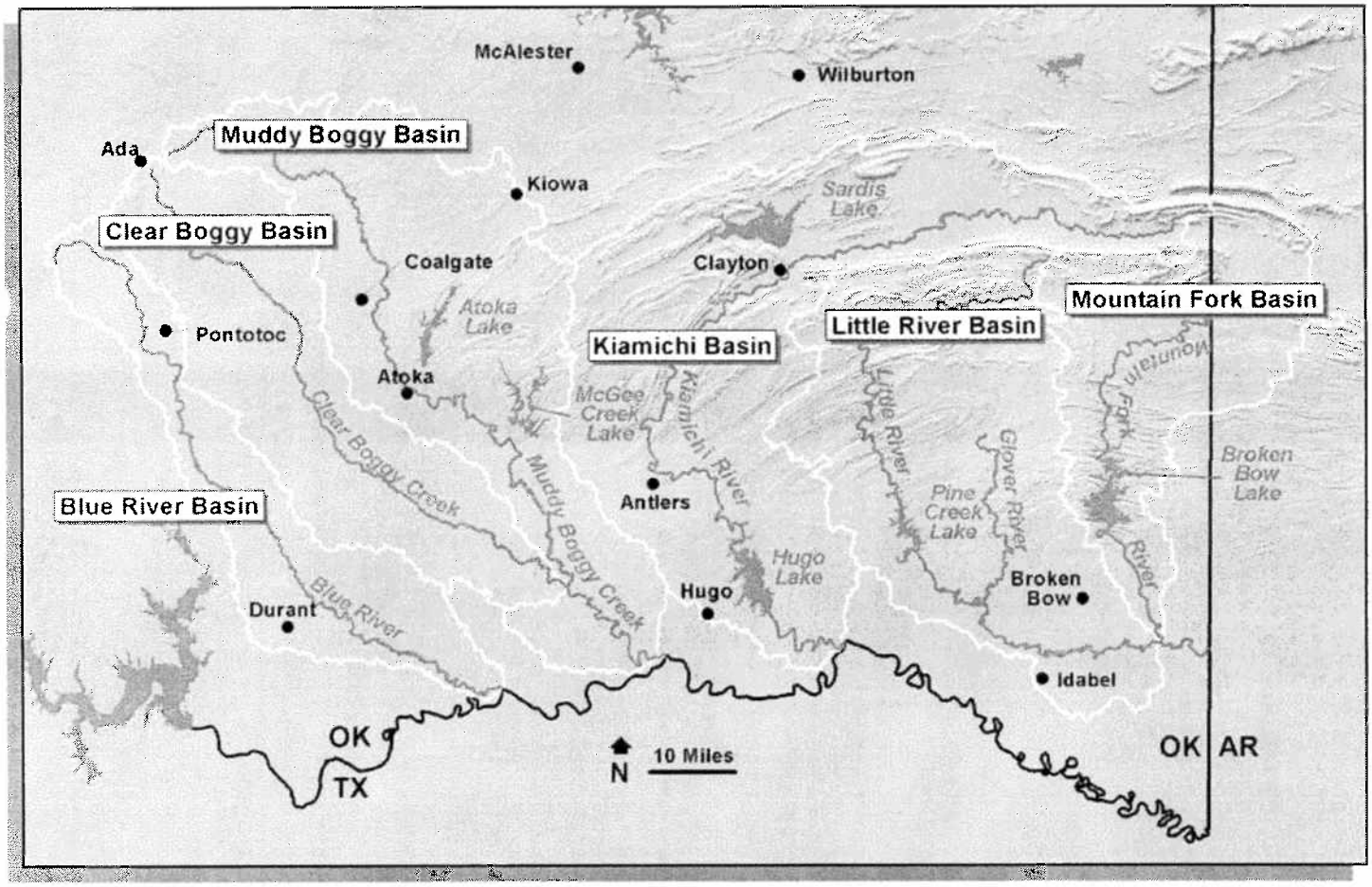
Michael R. Bond

Status Report
to the
Office of the Governor

Joint State/Tribal Water Compact & Water Marketing Proposals

Southeast Oklahoma Water Resources Development Plan



Oklahoma Water Resources Board
March 2002

EXHIBIT
A

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HCR 1066 (May 1999)
State/Tribal Water Compact, Public Discussion Draft
Draft Inter-Regional Water Supply Contract
Letter From North Texas Water Agency to Governor Keating (February 1, 2002)

This report was authorized and published by the Oklahoma Water Resources Board. Sixty copies have been printed and distributed at an approximate cost of $14.50 each. Copies have been deposited at the Publications Clearinghouse of the Oklahoma Department of Libraries.

Status Report to the Office of the Governor Joint State/Tribal Water Compact & Water Marketing Proposals

Southeast Oklahoma Water Resources Development Plan

INTRODUCTION

Intermittent exploration of utilizing southeast Oklahoma's abundant surface water resources to resolve the outstanding debt owed by the state to the federal government for Sardis Lake construction has been ongoing for more than 10 years. However, House Concurrent Resolution 1109, passed in May 2000 by the Second Session of the 47th Legislature, was perhaps the state's first comprehensive vehicle to accomplish that goal. Specific provisions of HCR 1109 directed the Oklahoma Water Resources Board (OWRB) to develop a water resources management plan for southeast Oklahoma, including identification of the following:

- sustainable long-term water supplies within the basin for flood control, environmental, and water supply purposes,
- excess water available for export and sale, and
- potential uses of revenue from such excess water sales for the purposes of improving water quality and environmental conditions within the Kiamichi River Basin.

As part of this effort, the Legislature also directed the OWRB, in conjunction with the United States Army Corps of Engineers, Tulsa District, to study the specified issues and further develop the plan to efficiently utilize the water supplies of the Kiamichi River for the benefit of the Basin region and adjacent areas. The OWRB and Corps were instructed to conduct the study in compliance with provisions of Enrolled House Concurrent Resolution 1066, passed in 1999, and recommendations from the Kiamichi River Basin Water Resources Development Plan. HCR 1066 and the resulting report were the vehicles that enabled the State of Oklahoma, through the Office of the Governor and OWRB, to initiate discussions with the Choctaw and Chickasaw Tribal Nations about development of a State/Tribal Water Compact and eventual resolution of conflicting water rights claims in southeast Oklahoma.

In addition, HCR 1109 provided authority for the OWRB, in conjunction with the Choctaw/Chickasaw Tribal Nations, to solicit nonbinding proposals for potential development of Kiamichi Basin area water resources, including the use of available waters within five additional watersheds in the region, which collectively produce in excess of 6.3 million acre-feet/year. Summaries of viable water development proposals submitted to the State and Tribes, which were mandated to be consistent with cornerstone principles established in the Kiamichi Plan to protect the region's water resources and the many benefits they provide, are presented in this status report to the Governor.

BACKGROUND

Southeast Oklahoma is home to abundant, renewable surface water resources. Six major river basins dominate the region: from west to east, the Blue, Clear Boggy, Muddy Boggy, Kiamichi, Little, and Mountain Fork. Collectively, based on conservative estimates of lowest downstream gages operated by the U.S. Geological Survey and Army Corps of Engineers, these watersheds produce 6,363,628 acre-feet/year (Figure 1).

The basins support six major reservoirs: Atoka Lake and McGee Creek Lake in the Muddy Boggy Creek Basin, Sardis Lake and Hugo Lake in the Kiamichi River Basin, Pine Creek Lake in the Little River Basin, and Broken Bow Lake in the Mountain Fork River Basin (Figure 2). Providing extensive benefits to Oklahomans, these lakes collectively store 751,250 acre-feet of water supply (yielding 648,660 acre-feet/year) and an additional 95,060 acre-feet (yielding 163,500 acre-feet) for water quality purposes. They also provide valuable flood control storage, collectively preventing approximately $200 million in potential flood-related damages, to date.

Consumptive water use in southeast Oklahoma is relatively minimal. A total of 354,345 acre-feet of both stream and groundwater is authorized for use within the six-basin area, but only about one-third of that amount (117,750 acre-feet) is reported as actually used each year, including slightly more than 11,000 acre-feet in the Kiamichi Basin. In comparison, the cities of Oklahoma City and Tulsa use a combined total of approximately 275,000 acre-feet of water in an average year.

At the center of recent investigations to generate revenue through water development opportunities in southeast Oklahoma is the State's outstanding construction obligation for Sardis Lake. Located on Jackfork Creek in Pushmataha and Latimer Counties, Sardis was constructed by the U.S. Army Corps of Engineers between 1975 and 1982 primarily for water supply, flood control, recreation, and fish and wildlife purposes. Because the State had confidence that the

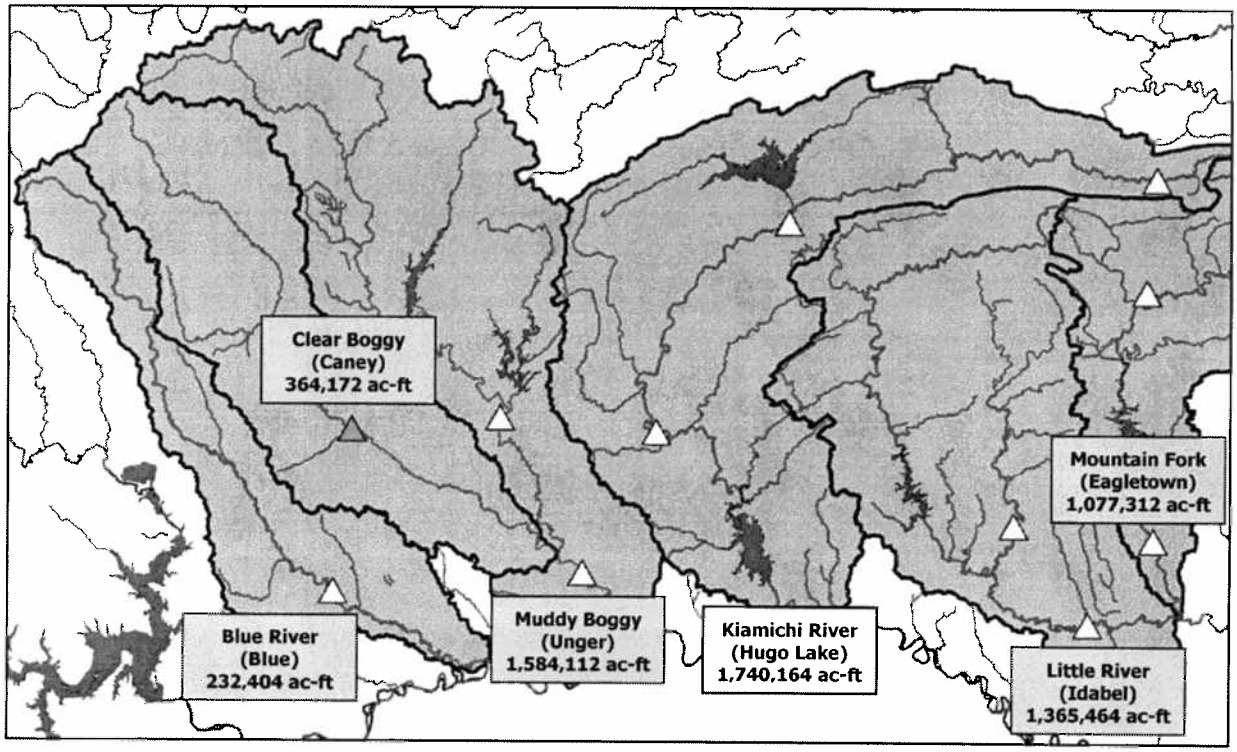

Figure 1. Locations of USGS stream gages and average annual downstream flows of major stream water basins, southeast Oklahoma (Clear Boggy gage is discontinued; all others active)

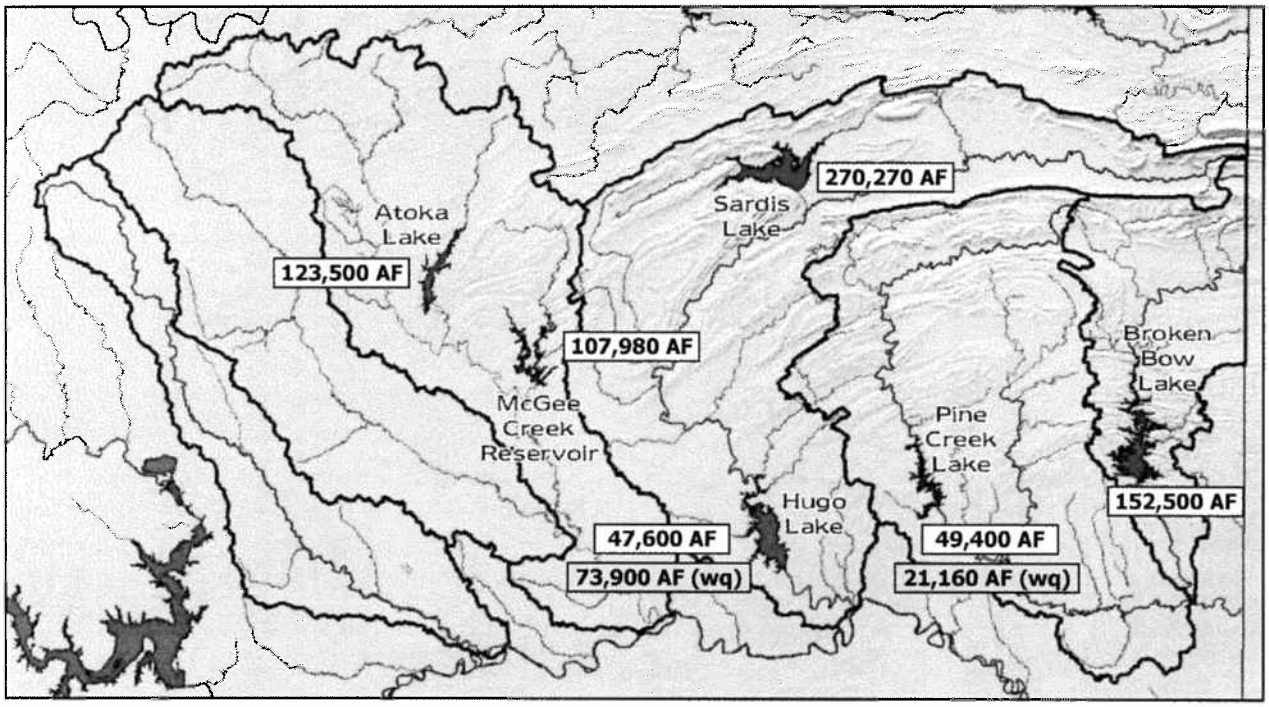

Figure 2. Major lakes and water supply (ws) and water quality (wq) storage in acre-feet (AF), southeast Oklahoma

lake's water supply would be utilized by local users and/or as a supplemental regional source for central Oklahoma and because the federal government would not start construction until a repayment contract was signed, the Oklahoma Water Conservation Storage Commission entered into the Sardis Lake Water Storage Contract with the Corps in 1974. The Oklahoma Attorney General specifically approved the agreement.

The Water Storage Commission, comprised of members of the Oklahoma Water Resources Board, was created by the State Legislature in 1963. The Commission was charged with reviewing and determining the feasibility of proposed federal projects as well as the present and anticipated needs of users in the projects' watersheds. If the Commission deemed a proposed project feasible, they were directed to negotiate with the federal government, municipalities and other interests to repay the costs of conservation storage in the project. However, as a necessary component of project construction, only storage not needed for present or future water use could be eligible for contract between the Commission and federal agency. The Commission would then hold this surplus water in trust and recover costs through usage by future customers. Senate Bill 138 (the "Oklahoma Sunset Law") terminated the Water Conservation Storage Commission and transferred all existing obligations to the OWRB. The Commission's last meeting was held in June 1979.

The Sardis Lake Water Storage Contract enables the State to use storage in the lake for municipal and industrial water supply in return for repayment of the project's construction costs attributed to water supply use. Forty-seven percent of the project's water supply storage is reserved for "present use" while 53 percent is reserved for "future use" where the contract's interest (4.012 percent) accumulates until that storage is used. The 1974 contract originally estimated water supply construction costs to total $16.4 million; the final actual cost of the water supply portion of the project totaled approximately $40 million. Through the Statewide Water Development Revolving Fund, which also serves as the funding source for Oklahoma communities in need of water and sewer project improvements, the State initially made six

annual payments to the Corps for approximately $2.7 million. Sardis is the only water supply lake in Oklahoma for which the State holds a contract to repay storage costs.

Anticipated development and subsequent use of Sardis Lake's water supply has not been realized and because the contract states that the Oklahoma Legislature is not legally obligated to appropriate funds for the payments, the State Legislature elected in 1989 not to authorize additional payments to the Corps. While payments were made in 1996 and 1997, bringing the paid amount to approximately $4.4 million, the State has deferred payments ever since. Oklahoma is currently more than $8.8 million in arrears, with the Corps claiming late payment interest of more than $2 million; outstanding storage costs now amount to approximately $38 million. Annual payments for use of Sardis water storage are presently more than $1 million, but could reach as much as $2 million if and when both present and future water supply storage are fully utilized.

Sardis Water Storage Contract Payments
State Of Oklahoma

Invoice	End Period	Invoiced	Principal Invoiced	Interest Invoiced	O&M Invoiced	Amount Paid	Principal Paid
1	01/06/1984	$415,107	$353,257	$0	$61,850	$415,107	$353,257
2	01/06/1985	$439,288	$51,404	$301,853	$86,031		$51,404
3	01/06/1986	$442,876	$53,467	$299,790	$89,619	$882,165	$53,467
4	01/06/1987	$449,959	$55,612	$297,645	$96,702	$449,959	$55,612
5	01/06/1988	$502,840	$57,843	$295,414	$149,583	$502,840	$57,843
6	01/06/1989	$481,690	$60,164	$293,093	$128,433	$481,690	$60,164
7	01/06/1990	$458,633	$62,577	$290,680	$105,376		
8	01/06/1991	$464,569	$65,088	$288,169	$111,312		
9	01/06/1992	$479,966	$67,699	$285,558	$126,709		
10	01/06/1993	$480,731	$70,415	$282,842	$127,474		
11	01/06/1994	$472,842	$73,241	$280,016	$119,585		
12	01/06/1995	$540,891	$76,179	$277,078	$187,634		
13	01/06/1996	$512,847	$79,235	$274,022	$159,590		
14	01/06/1997	$508,031	$82,414	$270,843	$154,774	$508,030	$82,414
15	01/06/1998	$1,160,322	$224,100	$699,416	$236,806	$1,175,850	$224,100
16	01/06/1999	$1,130,016	$233,091	$690,426	$206,500		
17	01/06/2000	$1,058,041	$242,442	$681,074	$134,525		
18	01/06/2001	$1,056,132	$252,169	$671,347	$132,616		
19	01/06/2002	$1,079,120	$262.286	$661,230	$155,604		
20	01/06/2003	$1,100,009	$272,809	$650,707	$176,493		
		$13,233,911			$2,747,217	**$4,415,640**	**$938,261**

Since 1990, several studies have been conducted and numerous efforts made to address the Sardis Lake contract and state/federal contentions surrounding the outstanding debt. Although each attempt has been meaningful and rewarding to some degree, all have failed to identify a popular, citizen-supported plan to resolve the controversy, and two pending lawsuits filed in 1998—a federal suit by the Department of Justice and a State taxpayers' demand suit—further complicate the matter and urge its resolution. Assisted through an amendment to the Water Resources Development Act of 1999 that authorized the Corps to accept a discounted

prepayment from the State of Oklahoma for Sardis water supply storage, the OWRB also continues to negotiate details of a potential agreement through the federal Office of Management and Budget. However, recent interest rate cuts have made this option less attractive for the time being.

Responding to local water supply concerns, the Water Board adopted a permanent rule in July 1999 that set aside 20,000 acre-feet/year for future water use in the 10-county area incorporating the Kiamichi River Basin, including the area surrounding Sardis Lake, which currently lacks a drinking water treatment and distribution system. An application for a U.S. Department of Agriculture (USDA) Rural Development loan, which will provide funding for construction of the Sardis Lake Water Authority and enable use of 500 acre-feet of water for its customers, is being processed while initial engineering designs are finalized. (A $122,397 OWRB REAP grant will provide the funding necessary to purchase that storage.) Although the Corps has agreed to allowances for that particular use, the federal agency is precluding use of additional water from the lake until resolution of the claimed breach of contract and restitution of late storage payments/interest.

Prompted by the ongoing legal dispute(s) and related issues concerning the outstanding Sardis Lake water storage obligation, the State Legislature passed House Concurrent Resolution 1066 on May 28, 1999. HCR 1066 directed the OWRB, designated Tribal representatives, and local citizens—together comprising the 17-member Kiamichi River Basin Working Group, co-chaired by Duane Smith, OWRB Executive Director and L.V. Watkins, advisor to the Choctaw and Chickasaw Tribes—to develop the Kiamichi River Basin Water Resources Development Plan for submittal to the State Legislature by February 1, 2000. The landmark legislation provided an opportunity for the State of Oklahoma to begin negotiations with the Tribes, whose lands encompass the Kiamichi River Basin, in an effort to facilitate development of the Basin's water supplies and identify potential benefits that those resources may provide to Oklahoma citizens.

Following six public meetings held from August 1999 through January 2000, the Kiamichi River Basin Water Resources Development Plan was submitted to the State Legislature in February 2000. In addition to offering a feasible, citizen-supported strategy to resolve the Sardis contractual obligation and develop Basin water resources, the plan refined the cornerstone principles established in HCR 1066 to guide potential water development opportunities. In summary, these explicit principles ensure the following:

- present and future water needs in the basin area are protected,
- various tourism/recreational benefits afforded by area lakes and water resources are protected,
- potential revenues for regional water/wastewater and related economic development needs are utilized,
- sufficient protection for the area's environment and endangered species is provided, and
- sufficient revenues to satisfy the State's Sardis Lake obligation as well as the Town of Hugo's water supply storage contract with the Corps of Engineers are generated.

The Kiamichi River Basin Working Group also offered seven "water development proposal evaluation criteria," consistent with the cornerstone principles, which they determined must be satisfied prior to approval of any proposed plan or project for the use, development, and/or transfer of Kiamichi River Basin water resources:

1. Is the proposal consistent with the cornerstone principle that grants Oklahomans the highest priority related to protection of present and future water needs?
2. Does the proposal protect future local uses of Sardis Lake water and does the proposal protect future water supply in the Hugo area and other areas in the Basin?

3. Does the proposal include implementation of a lake level management plan at Sardis Lake to protect fishery and recreational interests, and is the proposal compatible with existing and potential Hugo Lake management plans to protect Hugo's wildlife and waterfowl management areas?
4. Does the proposal optimize water/wastewater financing and related economic development opportunities in the Kiamichi River Basin?
5. Does the proposal address the State's obligation for construction costs at Sardis Lake?
6. Does the proposal include measures to satisfy the Hugo Municipal Authority's water storage contract with the Corps?
7. Does the proposal protect the integrity of the Kiamichi River, especially regarding endangered species and riparian landowners residing in the Basin?

Furthermore, in the selection of a proposal or plan, the Working Group emphasized that primary consideration should be afforded to the needs of citizens residing within the Basin followed by the various needs of State citizens in general. In addition, selection of a plan involving the transfer of water resources out of the Kiamichi Basin should be considered only after these needs are comprehensively addressed. Although the Kiamichi Plan identified several existing formal and informal proposals for the use, development and/or transfer of Kiamichi River Basin water supplies, the Working Group determined that none appeared to satisfy all water development criteria. As a result, they urged more detailed study of related issues prior to serious consideration of any plan's individual merits. The Working Group formally recommended that the State continue to pursue development of a water compact with the Choctaw and Chickasaw Tribal Nations. In addition, the Working Group encouraged broad public participation in potential water marketing/transfer plans involving Kiamichi Basin waters.

HCR 1109, passed in May 2000, directed the OWRB to coordinate with the Corps of Engineers on a study of southeast Oklahoma's water resources and to bring proposals for development of those waters to the State Legislature. The legislation required all valid proposals to be consistent with the cornerstone principles set forth in HCR 1066 and the February 2000 Kiamichi River Basin Water Resources Development Plan. In response to the legislation's mandate as well as recommendations offered in the Kiamichi Plan, the State (represented by officials from the Governor's Office and OWRB) and Tribal Nations 1) commenced formal water compact discussions through a memorandum of understanding in October 2000 and 2) initiated a cooperative request for qualifications process, also in October, to evaluate proposals for the development and/or marketing of available water in the southeast.

In July 2001, after the Corps received initial phase funding of $700,000 from Congress, the OWRB and Corps entered into a $7 million, 10-year cost-share study to examine opportunities for water resources development and protection in selected river basins in the southeast under various policy and planning scenarios. The first stage of the investigation, described in more detail later in this report, was completed in February 2002. Likewise, subsequent sections of this report present additional information concerning water compact negotiations, culminating in a draft State/Tribal Water Compact released in November 2001, and water marketing discussions with the North Texas Water Agency, a consortium of Texas water systems serving rapidly growing areas north of the Dallas/Fort Worth metroplex.

To guide all three interrelated tasks—the water compact negotiations, water marketing discussions, and southeast water resources study—cornerstone principles offered in HCR 1066 and the Kiamichi Plan were expanded to protect the many current and future benefits derived from waters in southeast Oklahoma and territories of the Choctaw and Chickasaw Tribal Nations.

SOLICITATION OF WATER DEVELOPMENT PROPOSALS

Joint State/Tribal Request for Proposals

In response to legislative directions provided through HCR 1109, on October 13, 2000, the OWRB and Choctaw/Chickasaw Tribal Nations released the Joint State/Tribal Request for Qualifications (RFQ), initiating a cooperative process to evaluate entities and organizations with a stated interest in submitting proposals for the use and development of surface waters in southeast Oklahoma. Specifically, the goal of the RFQ process was to establish the ability of potential applicants to finance and participate in a plan for the development of southeast Oklahoma waters. Preliminary views held that revenue (compensation) received by the State and/or Tribes for the use, development, and/or transfer of water would be reinvested to finance infrastructure and related economic development needed in the region. More specifically, the revenue would provide for repayment of construction costs for Sardis Lake to the Corps of Engineers, assist in establishment of a regional water supply system in the Sardis area, satisfy other water/wastewater infrastructure needs within the 22-county Choctaw and Chickasaw Nation area, and resolve outstanding Hugo Lake construction costs.

In the RFQ, the Water Board and Choctaw/Chickasaw Tribal Nations indicated that only those proposals consistent with the cornerstone principles and criteria contained in the Kiamichi River Basin Water Resources Development Plan would be considered, and any selected proposal would be of greatest value to the Kiamichi River Basin region, southeast Oklahoma, and the State of Oklahoma in general.

The 25-page RFQ document specified required guidelines, procedures, and resulting content of the Qualifications Proposals (QPs), which were to be submitted by December 29, 2000. In the RFQ, the OWRB and Tribal Nations stated that determination of potential environmental impacts resulting from the use or transfer of waters from southeast Oklahoma would be the responsibility of the chosen entity. Similarly, the RFQ clarified that the proposal must recognize all conditions and requirements of the National Environmental Policy Act and the actual project development would likely require determination of suitability by various state and federal agencies. The RFQ also made clear that qualified entities must be responsible for implementation of the project and bear all costs associated with necessary studies, permits, engineering designs, land and right-of-way acquisition, and construction.

Following final selection of the short-listed entity(s), the OWRB and Tribal Nations anticipated distribution of a Joint State/Tribal Request for Proposals, a cooperative evaluation process of the qualifying applicants' water/economic development proposals for selection and recommendation to the State and Tribal Legislatures. It was also anticipated that the OWRB and Tribal Nations would issue a RFP following concurrence of the Oklahoma State and Tribal Legislatures.

On November 14, 2000, the OWRB and Choctaw and Chickasaw Tribal Nations hosted the Joint State/Tribal Request for Qualifications (RFQ) Pre-Submittal Workshop. There were approximately 40 attendees representing the following: Texas interests (Texas Water Development Board, North Texas Water Alliance, Dallas Water Utilities, Tarrant County Regional Water District, Upper Trinity Regional Water District, City of Irving, and North Texas Municipal Water District), Oklahoma City and central Oklahoma (Oklahoma City Water Utilities Trust, Central Oklahoma Water Authority, and Central Oklahoma Water Resource Board), the Sardis and southeast Oklahoma area (Sardis Lake Water Authority, Sardis Water Resources Board, Clayton Chamber of Commerce, Idabel Chamber of Commerce, Idabel Industrial Authority, and McCurtain County Community Trust), various engineering firms, and private interests.

Qualifications Proposals were submitted by three entities: the North Texas Water Alliance (following incorporation, the North Texas Water Agency (NTWA), including the North Texas Municipal Water District, City of Irving, Dallas Water Utilities, Tarrant Regional Water District, and Upper Trinity Regional Water District), Oklahoma City Water Utilities Trust (OCWUT), and Central Oklahoma Water Authority. The QPs for NTWA and OCWUT contained detailed information about the applicants' interests, experience, financial viability, and technical capabilities in relation to potential participation in a water development plan or project. Guided by proposal evaluation criteria established in the Kiamichi Plan, the OWRB and Tribal Nations reviewed and appraised the QPs, then short-listed two applicants—the NTWA and OCWUT—to proceed in the actual *proposal evaluation* process, pending an informal discussion phase with the two entities.

Although focusing primarily on qualifications, the QPs contained substantial information on each entity's plan for development. Project sponsors have repeatedly indicated that ensuring future water supply for central Oklahoma is integral to, if not entirely dependent upon, future implementation of the Southeast Oklahoma Water Resources Development Plan. A more detailed summary of the NTWA and OCWUT proposals is presented later in this report (see "Summary of Proposals").

Oklahoma City Water Utilities Trust Proposal

The Oklahoma City QP included a May 1995 resolution passed by the OCWUT to purchase water supply storage at Sardis Lake, which would significantly improve long-term water availability and reliability throughout central Oklahoma. OCWUT would assume the State's arrearage on the Sardis repayment contract, current and future storage payments to the federal government, annual Sardis operation and maintenance costs, and work to establish a local organization to address local economic and water supply concerns (similar to the McGee Creek Authority or Canton Lake Advisory Committee). However, more recent informal discussions between the OWRB and Trust were tempered by the State's unwillingness to permanently assign Sardis storage rights to Oklahoma City and subsequently relinquish control of lake level protections. The Trust's QP stated serious concerns in proceeding forward in a plan for development without consideration of less restricted access to Sardis storage.

If Sardis storage concerns were resolved, the most likely transfer scenario would involve the withdrawal of a minimum of approximately 55,000 acre-feet/year from available streamflows (or downstream water released from the Sardis water supply pool) from the Kiamichi River at a point near Moyers (just north of Antlers), and then transfer of the water westward through a pipeline to McGee Creek Lake, the furthest reach of Oklahoma City's existing southeast supply system (via the Atoka Pipeline, Figure 3). No specific draw schedules were discussed with Oklahoma City officials. If the existence of endangered species—such as the Ouachita Rock-Pocketbook Mussel, which depends upon consistent flow in the Kiamichi River—preclude or complicate the taking of water at Moyers, it is possible that Oklahoma City would pursue withdrawal from either the upper or lower reaches of Hugo Lake, some 33 and 40 river miles downstream, respectively (Figure 4). However, the Hugo option would be considerably more expensive.

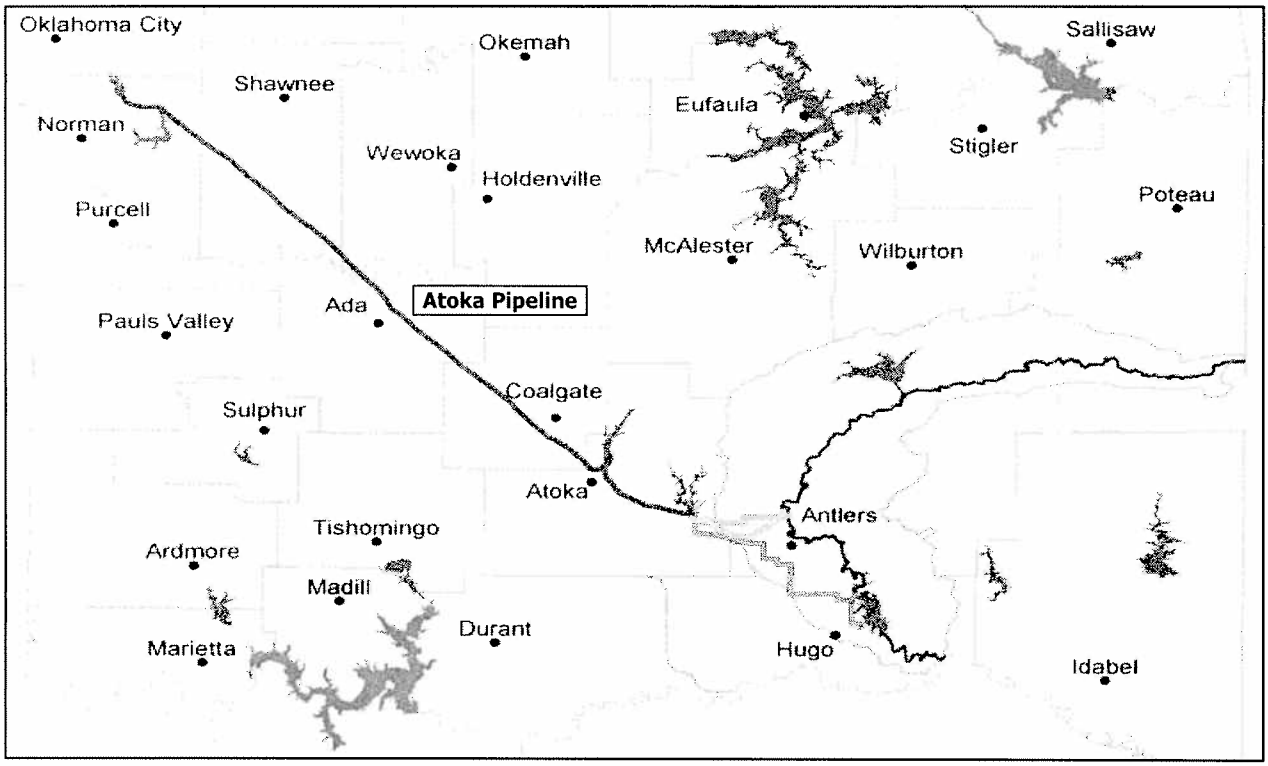

Figure 3. Atoka Pipeline and conceptual designs of Oklahoma City Water Utilities Trust proposal, Kiamichi River Basin

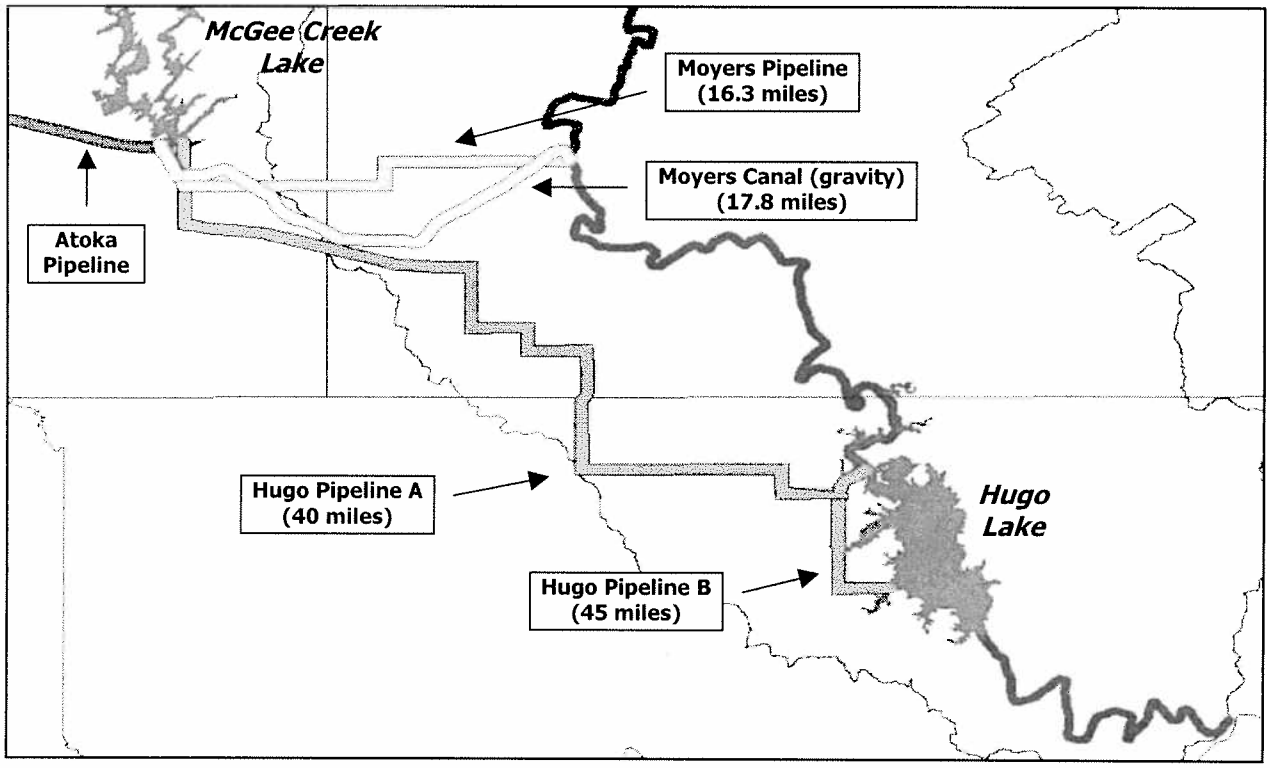

Figure 4. Conceptual design options and pipeline distances for transfer of Kiamichi River Basin water from Hugo Lake to Atoka Pipeline/McGee Creek

North Texas Water Alliance/Agency Proposal

Population projections estimate that the population of the State of Texas will double within the next 50 years; much of this growth, as well as associated water requirements, is expected to occur in the north Texas region. The NTWA water development proposal, as indicated in their QP and subsequent informal discussions, includes the taking of approximately 120,000 to 160,000 acre-feet/year of water from the Kiamichi River below Hugo dam to absolutely minimize potential environmental and related adverse impacts further upstream (Figure 5). In addition to its obvious close proximity to the north Texas region, this transfer point takes full advantage of accumulated streamflows and runoff from the substantial upstream watershed area. NTWA officials indicated that, should a water transfer agreement be executed, a pipeline would likely be constructed from the Kiamichi River, just north of its confluence with the Red River, to a tributary of Lake Lavon, the primary water supply reservoir of North Texas Municipal Water District.

NTWA also indicated their desire to purchase, if available, additional waters from sources in southeast Oklahoma in future phases of their development plan. A second, or expanded, NTWA proposal contemplates the use of up to an additional 200,000 acre-feet/year from the Little and Mountain Fork River Basins (Figure 6). This option is attractive due to the substantial flows available in the Little River, including water quality storage (21,160 acre-feet/year) from Pine Creek Reservoir, Broken Bow Lake hydropower releases, and additional releases from Broken Bow to support the downstream Mountain Fork River trout fishery. The most likely scenario would involve construction of a pipeline to transport water from the Little River along U.S. Highway 70, also facilitating creation of an economic development corridor in southern Oklahoma.

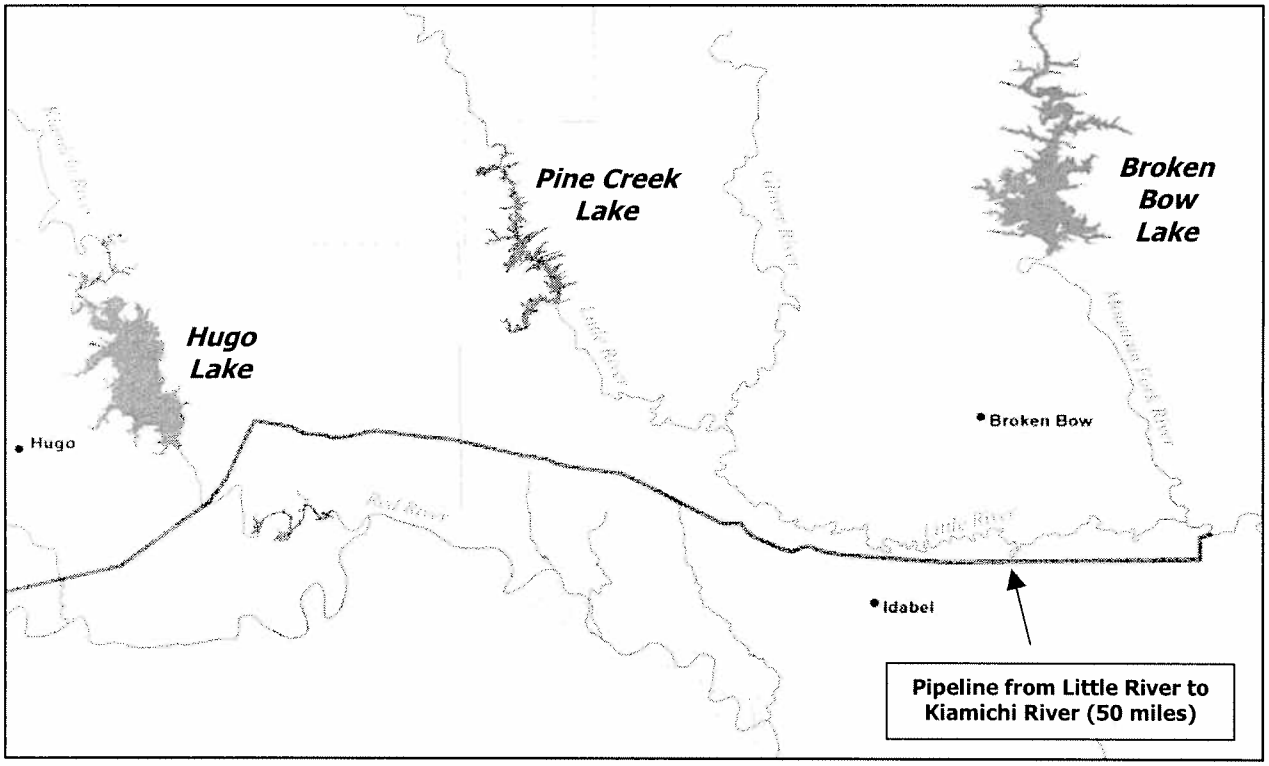

Figure 5. Conceptual design of North Texas Water Agency proposal for water transfer from Little River and Mountain Fork River Basins to Kiamichi River, downstream of Hugo Lake

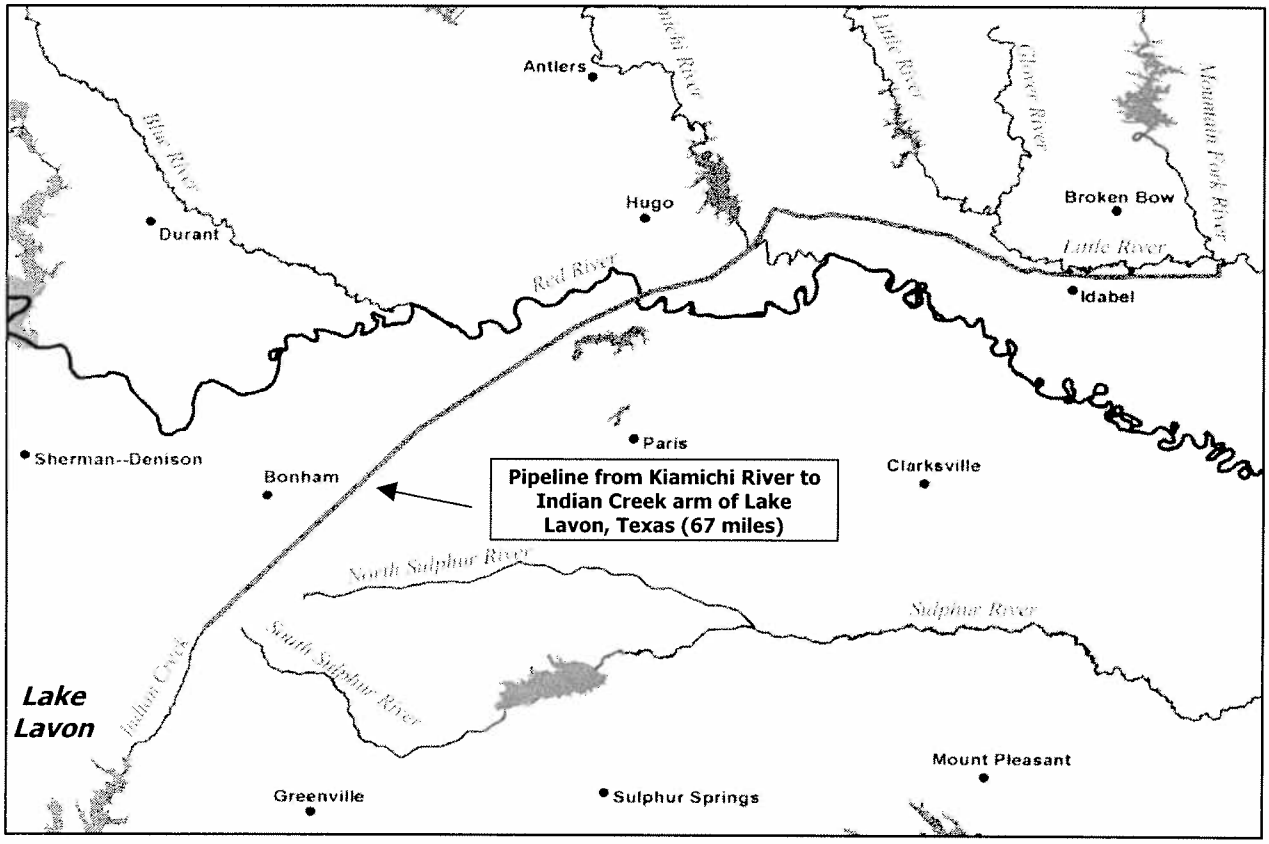

Figure 6. Conceptual design of North Texas Water Agency proposal for water transfer from Little, Mountain Fork, and Kiamichi River Basins to north Texas (via arm of Lake Lavon)

DEVELOPMENT OF THE DRAFT STATE/TRIBAL WATER COMPACT

Initial Claim to Water by the Choctaw/Chickasaw Nations

In August 1992, during the period when the OWRB was negotiating a draft water marketing agreement with North Texas Municipal Water District, as directed in Senate Joint Resolution 31, the Choctaw Nation and Chickasaw Nations submitted a written claim to ownership of and sovereign rights to regulate all water within the Tribal Nation's original land area in southeast Oklahoma. L.V. Watkins, then special counsel for the Choctaw and Chickasaw Tribal Nations, presented a summary of the Tribal Nation's legal position relating to water rights during a meeting with Water Board staff, U.S. Bureau of Indian Affairs representatives, and the U.S. Department of Interior Solicitor's office in Tulsa.

During the 1830s and 40s, the federal government entered into treaties and agreements to remove the Choctaw/Chickasaw Tribes from Mississippi and other areas in the southeastern U.S. The treaties and agreements, including the Treaty of Dancing Rabbit Creek, clearly indicated that the Choctaws and Chickasaws would be provided land in a territory west of Arkansas without further disturbance by the federal government or non-Indians. The Tribal Nations held that these various treaties and agreements were very broad with respect to the authority and ownership rights that they would have over these lands. The federal government followed up with the provisions in some of the treaties and provided federal patents to these lands. Government patents form the root of title to all property in the U.S. and are provided by the sovereign government (United States, state, or tribal government) claiming ownership of the land at the time the patent is granted.

The Choctaw and Chickasaw Tribal Nations claimed that the U.S. patent was all-inclusive, very broad, and contained no express reservations of interest. From the Tribes' point of view, the broad patent language meant that all water (surface water and groundwater) was transferred from the U.S. to the Tribal Nations during the 1830s and 40s. The Choctaw Nation patent describes a land area roughly west of Arkansas, between the Arkansas River and Red River, west to a line running north from Durant, Oklahoma, to the South Canadian River. The Chickasaw Nation area was located immediately west of the Choctaw area, between the South Canadian and Red Rivers west to the 98th meridian line running north from Waurika (Figure 7). Pursuant to another treaty between the United States and Choctaw/Chickasaw Nations, the Chickasaw Tribe was granted a 25 percent joint interest in the lands of the Choctaw Nation.

The Choctaws and Chickasaws also point to special federal legislation, adopted prior to Oklahoma statehood in 1907, that addressed the Five Civilized Tribes (Choctaws, Chickasaws, Cherokees, Creeks, and Seminoles) differently than other tribes relating to allotments and assimilation of Tribal members into traditional American society. They argued that the Five Civilized Tribes are the only tribes to obtain federal patents for their land, and that the tribal governments of the Five Civilized Tribes were given authority to provide tribal patents when transferring tribal lands to allottees. The Tribes contend that all water not transferred to the allottees remained with the tribal governments.

A key element to the Tribal claims is found in Oklahoma's own Enabling Act, representing permission from Congress for Oklahoma Territory and Indian Territory to form the State of Oklahoma and adopt a state constitution. Section 1 of the 1906 Enabling Act specified that nothing in the State Constitution shall be adopted to limit or impair the rights of persons or property pertaining to the Indians of Oklahoma Territory and Indian Territory, or limit federal authority in dealing with the Indians. Accordingly, Section 3 of the 1907 Oklahoma Constitution

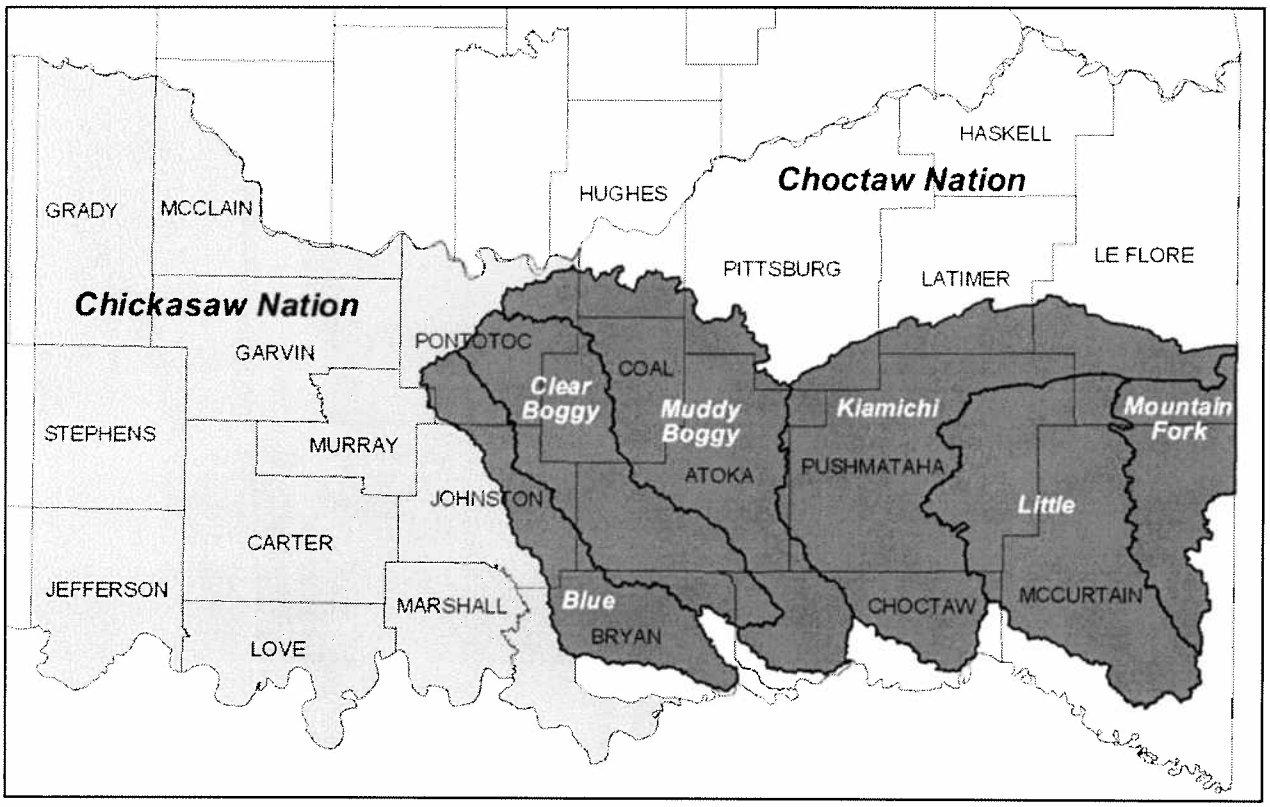

Figure 7. Choctaw and Chickasaw Nation boundaries and major watersheds, southeast Oklahoma

provides that the people inhabiting the State do agree and declare that they forever disclaim all right and title to lands lying owned or held by any American Indian, tribe, or nation.

Finally, to support their claims to ownership of and sovereign authority to control use of all waters within their original tribal boundaries (encompassing all or parts of 22 counties in southeast Oklahoma), tribal representatives pointed to several principles of law adopted by the U.S. Supreme Court, including two major cases interpreted in favor of Indian tribes.

In Cherokee Nation and Choctaw Nation v. State of Oklahoma (1970 Arkansas Riverbed case), the U.S. Supreme Court determined that based on treaties and agreements with the Tribes, the ownership of the riverbed of the Arkansas River (between what is now Lake Eufaula dam and the Arkansas state line) did not pass to the State of Oklahoma upon its admission as a state, but instead rested in the Tribes.

In the 1960 United States v. Grand River Dam Authority case, the U.S. Supreme Court denied GRDA's claim for just compensation by virtue of the U.S. Army Corps of Engineers' decision to install and operate a hydropower facility at Fort Gibson Reservoir on the Grand River. The Supreme Court, quoting a case dealing with the Osage Nation and mineral rights, reasoned that the title of the Indian tribes was established by federal grant when the U.S. government had complete sovereignty over the territory in question. The decision stated that the State of Oklahoma "when she came into the Union, took sovereignty over the public lands in the condition of ownership as they were then." GRDA had argued that it obtained title to water rights from the State when the Oklahoma Legislature created GRDA in 1935 and legislatively appropriated all waters of the Grand River to GRDA, and that the Corps' action was a "taking" of that water right transferred from the State to GRDA. The Supreme Court indicated that no water rights had passed from the federal government to Oklahoma and from Oklahoma

to the GRDA under a 1906 federal law allowing power and light companies to construct dams in Cherokee territory for power and other purposes. In other words, GRDA could not show a chain of title to the water rights it claimed was taken by the Corps of Engineers. With no water right, there could be no taking of that right, and therefore, the federal government owed nothing to GRDA.

Initial Discussions with the Choctaw and Chickasaw Tribal Nations

Following the August 1992 water rights claim, staff of the OWRB entered into preliminary discussions with representatives of the Choctaw and Chickasaw Nations. Relative to the then-ongoing contract negotiations with North Texas Municipal Water District, Tribal representatives initially indicated that they should control all sales of water from their territorial areas, in-state and out-of-state, and should retain all the subsequent revenues.

However, it was clear that proper administration of water rights was required to provide assurance of rights to use water for a water marketing agreement. Tribal representatives indicated that because the tribes were not necessarily interested in establishing a new and separate regulatory system to govern water use, they would agree to share revenues with the State if the State would continue its water rights administration program (i.e., appropriation permits issued by the OWRB). Discussions with Tribal representatives terminated soon after SJR 31 was declared void by an opinion of the Attorney General.

Recent State/Tribal Compact Negotiations—HCR 1066 and HCR 1109

During initial meetings of the Kiamichi Basin Working Group, it became clear to staff of the OWRB that an independent analysis was required of the Indian water rights claims made by the Choctaws and Chickasaws. During the late fall of 1999 and early 2000, the OWRB and City of Oklahoma City (concerned about the impact of the tribal claims on Oklahoma City's use of water from Atoka Lake and McGee Creek Lake, which lie within the original Tribal territories) entered into a joint professional services contract with the Arizona law firm of Ryley, Carlock, and Applewhite to provide a legal opinion of the claims. That opinion was provided in February 2000.

To maintain proper confidentiality and attorney-client privilege, the legal memorandum to support the opinion has not been disclosed. However, the summary opinion letter was disclosed by the City of Oklahoma City. Essentially, Mike Brophy, lead counsel for the Arizona law firm, indicated his view that the water rights claims are not supported to the degree claimed by the Tribes. However, Brophy also acknowledged that because some claims might be supported (possibly creating the potential for a problematic "checker-boarding" of water rights administration), the State should compact with the Tribes rather than litigate.

Experience in other states has shown that Indian water rights litigation is a time-consuming and expensive process that often results in a further clouding of the situation, threatening the potential economic development benefits of related water uses. Furthermore, after litigation, a court opinion probably would not resolve all the pertinent issues, requiring additional litigation and costing more money and time to all involved parties.

The final report resulting from the HCR 1066 effort was completed and presented to the Oklahoma State Legislature in February 2000. Recommendations of the HCR 1066 Kiamichi Working Group advised the State of Oklahoma to pursue formal development of a compact or other agreement with the Choctaw and Chickasaw Tribes that would facilitate the development

and best uses of water resources in the Kiamichi River basin, incorporating the cornerstone principles set forth in HCR 1066, which were identified and refined by the Working Group in the HCR 1066 report.

On May 26, 2000, the Oklahoma Legislature adopted HCR 1109. Among other provisions, HCR 1109 directed the OWRB, in conjunction with the U.S. Army Corps of Engineers, to develop a Southeast Oklahoma Water Resources Management Plan, including a study to be conducted in compliance with HCR 1066 and recommendations of the Kiamichi River Basin Water Resources Development Plan.

During the summer and early fall of 2000, staff of the OWRB and Choctaw and Chickasaw Nations began initial water rights compact discussions as recommended in the Kiamichi Plan. Pursuant to State law, it was understood that the Governor of Oklahoma possesses sole authority to "negotiate" with federally recognized tribes. Therefore, OWRB staff initiated dialogue with the Governor's Office concerning the need for a compact with the two Tribal Nations in order to pursue any plan for water development in southeast Oklahoma. These initial discussions between representatives of the Tribes and Governor's Office resulted in a written Memorandum of Understanding (MOU) executed on October 12, 2000. The MOU indicated that a negotiated water compact would address three primary issues: water rights administration, water quality standards administration, and development and use of water in the compact area. The MOU also offered a timeline within which a draft Compact and proposal(s) for development of water in the compact area would be presented to the Oklahoma Legislature. Howard Barnett, Chief of Staff for Governor Keating, was the lead negotiator for the State of Oklahoma in subsequent compact negotiations. Mr. Barnett sought technical assistance from staff of the OWRB and relied on staff to review discussion drafts of compact language so that existing State law and hydrological considerations were properly represented in negotiations. The Governor, in consultation with Mr. Barnett, had the ultimate say in approving draft compact language and provisions.

Provisions of the Draft State/Tribal Water Compact

Full Legislative Approval of Compact

An initial matter addressed by the Office of the Governor and Tribal representatives was the general process for compact approval. All parties acknowledged that existing State law (74 O.S. §1221) provides that the Governor may negotiate intergovernmental agreements with any of the 39 federally recognized tribes, and that the Legislature's Joint Committee on State-Tribal Relations has authority to approve such intergovernmental agreements. However, all parties also recommended that in view of the significance and importance of the issue, the full Oklahoma Legislature should review and approve the draft water compact rather than just the Joint Committee. Accordingly, the draft compact expressly requires full legislative approval for ratification.

Full Legislative Approval of Out-of-State Water Marketing Contracts

During early discussions between the State and Tribal Nations, it was agreed that the full Oklahoma Legislature must approve any out-of-state water marketing agreement. Therefore, provisions are included in the compact to make it clear that, in addition to full legislative approval of the water compact with the Tribes, any out-of-state water use agreement must be presented to and approved by the full Oklahoma State Legislature.

No Impact on Private Property Rights

The OWRB has received many questions and comments concerning the potential impact of the compact on private property rights. Comments range from concern about the taking of groundwater to satisfy a water sale, to taking water from farm ponds, to subjecting water rights to Tribal review and approval. Parties to the compact resolutely agree that the compact should impact no private property rights. Furthermore, the draft compact specifically declares in several provisions that groundwater will not be sold, and all existing appropriation rights to stream water, water in lakes, and water in farm ponds are protected as they are under State law. Finally, because the Tribal water rights claims were broad and included groundwater (recognized under state law as private property of the landowner), provisions of the compact address groundwater to remove the associated water rights cloud and provide assurance that existing state procedures would continue to be followed.

Major Subjects of the Compact

Major subjects addressed in the draft compact are as follows:

Parties

As drafted, the parties to the compact include the State of Oklahoma, Choctaw Nation, and Chickasaw Nation.

Definitions

The draft compact contains several water-related definitions taken verbatim from existing State statutes relating to use of water, thereby making it easier to apply current State meanings and interpretations (from State statutes, agency rules, and court cases) to such words.

Compact Area

The geographic area to which the compact would apply is concurrent with the area included within the original boundaries of the Choctaw and Chickasaw Tribal Nations over which those Tribes claimed ownership of and sovereign authority to regulate all waters. The area covers all or parts of 22 counties in southeastern and south central Oklahoma (south of the South Canadian and Arkansas Rivers, north of the Red River, and west from the Arkansas State border to the 98th meridian), so that clouds to water rights created by the Tribal claims can be resolved for the entire area.

Water Rights Administration

The Choctaw and Chickasaw Nations expressly delegate any authority they may have over water rights administration to the State. To the extent that the Tribal Nations may be able to prevail in their claim of sovereign control over at least some of the water in the compact area, this provision would eliminate the potential checkerboard administration of water rights in the 22-county area. Because the Tribal Nations had claimed ownership and authority over groundwater as well as surface water, the compact makes it clear that administration of groundwater rights will remain with the State. As part of this agreement, the Tribal Nations expressly release all claims to water rights issued by the State, including water rights of the City of Oklahoma City to Atoka Lake and McGee Creek Lake.

The draft compact states that following ratification, Oklahomans would be able to pursue additional water rights without potential claims or the payment of revenues to the Tribal Nations to release claims. The Office of the Governor is adamant that no State entities would be required to compensate the Tribal Nations for the use of water within Oklahoma.

In the compact, existing State laws and OWRB rules concerning water use are recognized by the Tribal Nations as controlling. The Tribal Nations would have input into rule changes by the OWRB (as they do now), but the role of the Tribes would be limited, allowing them to submit a proposed rule to arbitration only if the rule infringes on tribal sovereignty or allows use of water in excess of present or future needs (already prohibited under existing State law). The Tribal Nations could also protest a permit application (again, as they can now) and submit the proposed order approving a permit to arbitration, but only for very limited reasons (e.g., the findings violate rules of the OWRB, would violate a water marketing agreement, or infringe on tribal sovereignty).

Water Quality Standards Administration

The federal Clean Water Act requires all states to adopt water quality standards. Current federal law also provides that Indian tribes can be treated as states in regard to Clean Water Act program authority—such as water quality standards adoption, grants, and wastewater discharge permitting—and authorizes tribes to adopt water quality standards. The compact recognizes the possibility that the Choctaws and Chickasaws could ask the U.S. Environmental Protection Agency for recognition as a state and adopt their own water quality standards, but the compact, as drafted, would not provide independent authority for the Tribal Nations to adopt water quality standards. Instead, the Tribes agree to limitations on current authority.

There are not many tribes in the United States that have been approved to be treated as a state for water quality standards adoption purposes. However, where tribes are authorized to adopt their own water quality standards, significant problems can result for non-Tribal interests. For example, the Isleta Pueblo Indian tribe in New Mexico, which owned a small parcel of land along the Rio Grande River just downstream from Albuquerque, adopted a water quality standard for the Rio Grande that was stricter than the New Mexico State standard. The EPA subsequently required the tribal standard to be met by Albuquerque's wastewater discharge plant. The U.S. Supreme Court agreed, and as a result, Albuquerque and other industrial dischargers into the Rio Grande upstream from the Isleta Pueblo were forced to spend millions of dollars in treatment plant upgrades to meet the stricter tribal water quality standard.

The EPA has proposed tribal water quality standards to be applicable on tribal lands everywhere in the U.S. where the tribes have not adopted their own standards. Through "Core Water Quality Standards," EPA proposes to declare that a state's water quality standards do not apply to certain tribal lands, even if the tribe has not adopted their own standards. Therefore, EPA holds that it is required to promulgate standards for those areas until the tribes do so. EPA is uncertain at this time which tribal lands will qualify for tribal standards. However, if differing standards apply to various tracts of land in the 22-county compact area, another very complex checkerboard situation would be created, one much more detrimental to economic development than the water rights administration uncertainties created through Tribal claims. If the compact is ratified, this problem could be alleviated because the Choctaw and Chickasaw Nations would agree that the State's water quality standards apply in the compact area unless the Tribal Nations obtain EPA approval to adopt their own standards.

The Tribes are not willing to give up the right to adopt their own water quality standards, although they generally agree that exercising that right is only a remote possibility. However, if the Choctaws or Chickasaws decide to ask EPA to approve tribal water quality standards, the Tribal Nations agree in the compact to two major limitations on water quality standards authority.

First, the Tribal Nations agree to request authority to adopt standards only for "tribal-owned trust lands" and "restricted allotments." Under EPA's draft core water quality standards, EPA

may consider that tribal standards apply not only to tribally owned trust lands and allotments, but also to "dependent Indian communities." The Choctaws and Chickasaws agree in the compact to limit their request only to tribal trust lands and allotments, thus reducing the geographical area where tribal water quality standards could apply.

The Choctaw and Chickasaw Tribes also agreed to limit the effect of any water quality standards that are approved. Under the draft compact, the tribal water quality standard cannot impact waters on lands that are not tribal-owned trust lands or allotments. Without this limitation, the tribe could adopt a less stringent standard that could have an adverse impact on waters off tribal lands. The Tribal Nations also agree that a tribal water quality standard cannot cause economic hardship on lands that are not tribal-owned trust lands or allotments, thus eliminating potential problems where the tribal standard is more stringent (like the Isleta Pueblo situation in New Mexico). These two very significant compromises by the Tribal Nations regarding water quality standards administration are extremely valuable to the State.

Economic Development Through Water Sale Revenues

As directed by HCR 1109, any water development proposals for the Kiamichi River Basin area must be submitted to the State Legislature for consideration and contain criteria consistent with "cornerstone principles" set forth in HCR 1066 and refined by the Kiamichi Basin Working Group. The draft compact sets forth the cornerstone principles in Article 5.1 and refers to State law regarding stream water use applications, including 82 O.S. §105.12, which contains related area of origin protections.

Early on, it became clear to State and Tribal negotiators that priority and protection for in-state use of water would be a pivotal issue in any agreement to sell water out of state. To confirm that intention, Article 5.3 of the draft compact contains specific parameters for any out-of-state water sale contract, such as:

- The out-of-state contract must contain an express waiver of downstream dependency.
- The contract for out-of-state water sale must contain escalation provisions relating to price of water.
- The contract must expressly provide that groundwater (private property right under Oklahoma law) will not be used as a supply in the out-of-state sale.
- The contract must provide that water from Oklahoma will not be used solely or primarily for recreation, fish and wildlife benefits out of state.
- The contract cannot be materially amended without approval of the Oklahoma Legislature and Tribal legislatures.
- The contract must contain specific water diversion limits that clearly indicate when out-of-state taking must be reduced or terminated to prevent undue diversions during drought episodes.

The draft compact provides in Article 5.3(b) that the State will get 50 percent of the net revenues for an out-of-state water sale while the Tribes split the other 50 percent. Comments have been made that this split of revenues gives too much value to the Tribal claims. However, the compact, as drafted, would provide substantial non-revenue benefits and value to the State.

Aside from the obvious benefit ensuring that no Oklahoman would be compelled to pay or compensate the Choctaw and/or Chickasaw Tribes for the use of water in southeast Oklahoma, it is difficult to attribute a specific monetary value to removing the cloud caused by Tribal water rights claims. Limiting the analysis to economic benefits alone and assuming the current water rights disagreement reduces economic activity in southeast Oklahoma by one-half over the next 100 years, resolution of the issue could be worth hundreds of millions of dollars to Oklahoma.

And, as mentioned, eliminating potential conflicts over water quality standards is of similar, if not greater, economic value. If the assumption is made that the value of the State having both primary water rights and water quality administration is each at least equal to the revenues from a water sale, it becomes clear that the State would receive substantially more than 50 percent of the overall value of the compact.

Another indirect monetary benefit of compacting with the Tribes is avoidance of adjudication and litigation costs. In several western states, those governments have had to provide all or most of the expenses related to water rights adjudication involving Indian tribal claims. The Gila River adjudication in Arizona has been active for more than 20 years with nearly 20,000 named claimants. In view of the extent and geographic area subject of the Choctaw and Chickasaw Nation claims, avoiding extremely complex and expensive litigation should be considered a valuable benefit to Oklahoma.

Compact Commission

The compact, as drafted, would establish a compact commission whose primary function would be to administer an out-of-state water sale contract. The compact commission would have an equal number of State and Tribal representatives, similar to the four interstate stream compacts to which the State of Oklahoma is a party with surrounding states. Although the commission would be an intergovernmental entity, the Office of the Governor was adamant that the compact commission be required to comply with the State's Administrative Procedures Act, Open Meetings Act and Open Records Act (Article 7.7 of the draft compact).

Contrary to some comments and media reports, the compact commission would have nothing to do with water rights administration or water quality standards administration. In addition, the compact commission would not make decisions on expenditures of water sale revenues. Instead, the commission would receive gross revenues from the out-of-state sale of water, and then build (and consequently obtain and retain ownership of) all pumps, pipelines, and other structures required to make that water available to the out-of-state user, pursuant to contract terms. In this regard, Article 5.3(e) of the compact specifically reiterates that an out-of-state water sale contract must be approved by the Oklahoma Legislature. Furthermore, additional reservoirs would be constructed if, and only if, the Oklahoma Legislature approved such new reservoirs, again contrary to some reports.

The compact commission would be given authority to issue bonds to construct infrastructure needed to supply water for an out-of-state sale. However, the compact provides additional Oklahoma legislative oversight by making the issuance of such bonds subject to approval of the State's Executive and Legislative Bond Oversight Commissions. In other words, in addition to full Oklahoma legislative authority related to approval of an out-of-state water sale contract (including all parameters and requirements thereof), the issuance of bonds for infrastructure to supply water for the contract is subject to separate State oversight.

Contract Approval and Ratification

As indicated at the beginning of this section, the draft compact expressly contemplates and requires full legislative approval, not just approval by the Joint Committee on State-Tribal Relations. In addition, the Secretary of Interior and/or the full U.S. Congress must ratify the compact agreement before it could become effective.

SOUTHEAST OKLAHOMA WATER AVAILABILITY STUDY

As directed by HCR 1109, the OWRB and Corps of Engineers initiated a long-term, detailed study of southeast Oklahoma's water resources and hydrology in July 2001. Although the multi-phase study is projected to take up to 10 years to complete (depending on funding availability and needs), project sponsors indicated an immediate desire for specific water-related information that would enable them to properly evaluate the initial proposals of the two short-listed entities and negotiate initial fundamental terms of prospective water agreements with Oklahoma City and north Texas. Of most urgent need was a determination of available water under various transfer scenarios with all protective assumptions in place as outlined in the Kiamichi Plan.

The first stage of the investigation, completed in February 2002, focused on the utilization of flows below Hugo Lake and just downstream of the confluence of the Little and Mountain Fork Rivers. Crucial to this phase was development of a computer model, the Corps' SUPER Model, to estimate water available under a range of policy and planning scenarios, including incorporation of protective measures. Results of various model "runs" were used by representatives of the State, Choctaw/Chickasaw Tribes, OCWUT and NTWA to structure specific terms of the water marketing agreements.

The SUPER Model is a suite of computer programs written specifically for use in the Corps' Southwestern Division to model regulation of multi-purpose reservoir systems. It was developed over a 30-year period as a planning tool to perform period-of-record analysis and evaluate changes in operational scenarios. This complex, yet flexible, model can accurately simulate flood control and water conservation pool operations and releases, including those associated with hydropower, water supply, water quality, diversions, and returns. It also has the capability to develop unregulated conditions models, simulating the existence of some or all existing and/or proposed reservoir projects. Besides system modeling, SUPER has the ability to perform economic analyses of impacts among proposed plans. It can also provide a wide variety of output from which to evaluate scenarios, including tabular or graphical formats of hydrographs, duration plots, and frequency curves at all reservoirs and control points within a system model.

In addition to the evaluation of alternative regulation plans for multi-purpose reservoir systems and individual reservoirs, the SUPER Model has been utilized for the hydrologic analysis and economic screening of proposed additions to a reservoir system or reallocation of storage at existing lakes, evaluation of risk in emergency reservoir situations, and various other planning projects. For the Southeast Oklahoma Water Availability Study, an adapted SUPER Model used for the Red and Trinity River Basins was applied with a period of record from 1940-1990. The model proved invaluable in the analysis and development of system operational constraints and policy in the stream water basins of southeast Oklahoma.

To consult with the Corps on model and water transfer scenario development and provide a "sounding board" on potential proposals discussed in separate informal negotiation sessions with both OCWUT and NTWA, the Choctaw and Chickasaw Nations retained an independent water resources and environmental consulting firm, Jones and Stokes, from Sacramento, California. Both the consultants and Corps modelers fine-tuned the model to fit potential water utilization plans while maintaining consistency with the fundamental protective criteria and principles.

Initial assumptions recognized by the Corps modelers and Tribal consultants in model adaptation and development were stringent assurances to protect water supply, in-stream flow and reservoir operational requirements for fish and aquatic life (including endangered species), waterfowl habitat, and recreational uses, such as fishing and hunting. Receiving special

attention was protection of future water supply from Sardis and Hugo Lakes. Also receiving priority in relation to potential Texas water supply transfers below Hugo Lake was a future diversion from the Kiamichi River to Oklahoma City and central Oklahoma. However, the model assumed that neither diversion would be allowed to draw down Sardis or Hugo below prescribed levels that fully protect recreational uses. Lake level management plans for the two lakes, developed and recommended by the Oklahoma Department of Wildlife Conservation (ODWC), were built into SUPER.

Phase I of the Southeast Study also included an analysis of historical Kiamichi River flows to determine the water supply yield that could be promised to North Texas water users during the most severe drought of record without reducing the value of Oklahoma water resources. Terms would be added to a prospective water contract with NTWA to protect Sardis and Hugo reservoir levels, future water supply from Sardis and Hugo, and future diversions from the Kiamichi River to Oklahoma City via the Atoka Pipeline. Similar protective measures for reservoir operations would be specified for Pine Creek (on the Little River) and Broken Bow Lake (on the Mountain Fork River).

Various aspects of the Southeast Water Availability Study and model development, as they relate to protective assumptions and quantities of water potentially available for sale and transfer under various scenarios, are presented below.

Kiamichi River Operations

From 1925 to 2000, the annual volume of Kiamichi River runoff flowing into Hugo Lake has fluctuated from less than 500,000 acre-feet in a few dry years to more than 3,000,000 acre-feet in the wettest years. The minimum runoff recorded during the period is 360,000 acre-feet (1963) and 450,000 acre-feet (1956). Hugo Lake inflow will be greater than 830,000 acre-feet in 90 percent of the years. The historical Kiamichi River runoff was used to simulate Sardis and Hugo Lake reservoir operations with the proposed ODWC lake level management plans in place and future water supply reserves of 20,000 acre-feet/year for each lake. Other assumptions included a future diversion at Antlers to supply Oklahoma City's needs, a minimum in-stream flow requirement, and "tapering" (instead of rapid) flood control releases at the conclusion of flood control operations to provide for extended periods of diversions below Sardis and Hugo.

With these assumptions in place, SUPER ran daily simulations for the historical period of record to determine water potentially available from the Kiamichi Basin to NTWA and OCWUT during the driest years. For 1956, one of the driest years on record, model results determined that releases from both Sardis and Hugo to augment supply for either entity would be prohibited due to maintenance of lake levels required to protect recreation and wildlife benefits.

Regarding the simulated Oklahoma City water supply diversions at Antlers, the pipeline was assumed to have a capacity of 200 cubic feet per second (cfs); a minimum in-stream flow requirement of 50 cfs, or 36,200 acre-feet/year, was also established. Diversions were allowed in the February to early June period and again in December. The total annual diversions in the dry year of 1956 were simulated to be 50,000 acre-feet (45 mgd). Diversions to Oklahoma City would usually be more than allowed in 1956, so 50,000 acre-feet was estimated as the dependable yield to Oklahoma City. Again, a 50 cfs in-stream flow requirement was assumed to protect the Kiamichi during dry periods. Historical data indicates that the Kiamichi River at Antlers frequently drops below 50 cfs during the summer months between runoff events. This minimum flow will prevent the potential Oklahoma City diversion from reducing streamflow during times of natural low flow.

For the simulated Hugo releases and water supply diversion below Hugo, a required minimum flow of 25 cfs was built into SUPER at the mouth of the Kiamichi before it flows into

the Red River at the State border. With a 250-cfs capacity pipeline, the simulated water supply diversions totaled about 104,000 acre-feet/year, although additional diversions could be possible through a slightly larger pipeline or with additional draw-down of Hugo Lake during the October-December period. No change in the monthly pattern of water quality releases was simulated and no releases for Hugo were made specifically for the NTWA water supply diversion.

In summary, these model runs simulate the future daily operations of Sardis and Hugo with the historical daily runoff patterns to evaluate future potential water supply diversions for Oklahoma City and north Texas. Kiamichi River water resources are protected by in-stream flow requirements and lake level management plans and only surplus water is diverted from the river at Antlers and below Hugo for water supply purposes. This is the most protective reservoir operation alternative because no additional reservoir releases are made for the downstream water supply diversions.

Phase I Diversions—Kiamichi River below Hugo Lake

Discussions with NTWA officials indicated that the potential water transfer would likely occur in phases as the water supply needs of the north Texas region increase over time. NTWA expressed a desire to implement an initial phase as soon as possible to supply their customers with 120,000 acre-feet/year of supply during the driest years. This phase was simulated in the model with construction of a diversion pipeline of 250 cfs below Hugo Lake near the mouth of the Kiamichi River. Because the Oklahoma City diversion would not occur for at least 20 years, and the local water supply needs supplied by Sardis and Hugo are not assumed to reach full capacity for a similar amount of time, Kiamichi diversions to NTWA will be greater during Phase 1, with the ability to reduce them as needs develop in Oklahoma.

Because OCWUT officials do not anticipate a need for Kiamichi River supply for another 20 years, NTWA water supply diversions below Hugo were simulated assuming the Oklahoma City diversion has not been constructed. A 250-cfs pipeline capacity was assumed to accommodate summer water quality releases and allow the pipeline to be virtually full during the months of June, July, August, and September. The local water supply usage at both Sardis and Hugo was assumed to be 10,000 acre-feet/year. The minimum annual water supply diversion for NTWA was simulated to be 111,000 acre-feet (in 1956), the 90 percent water supply volume was 124,000 acre-feet/year, and the average water supply diversion was 153,000 acre-feet/year. In a repeat of driest year conditions, the potential release of additional water supply from Sardis or Hugo to supply a NTWA diversion of approximately 120,000 acre-feet would lower Hugo Lake about one foot.

Phase II Diversions—Kiamichi and Little Rivers near Idabel

Phase II of the NTWA proposal assumes an increase in north Texas water supply needs to approximately 180,000 acre-feet/year. Assuming full Oklahoma City diversions and full Sardis and Hugo local water supply diversions, model runs determined that this entire volume is not possible from the Kiamichi River below Hugo in most years, even with an increased assumed pipeline capacity of 500 cfs. The simulated Oklahoma City diversions had a minimum annual volume of 40,000 acre-feet, a 90 percent water supply volume of 68,000 acre-feet/year, and an average water supply diversion volume of 94,000 acre-feet/year. The simulated minimum annual NTWA diversion was 123,000 acre-feet, the 90 percent NTWA diversion was 146,000 acre-feet/year, and the average NTWA diversion was 224,000 acre-feet/year. Additional

diversions from the Little River would be required in Phase II of the NTWA proposal, according to the simulation.

Simulated results for Pine Creek Lake operations for 1956 determined a local future water supply of 50,000 acre-feet/year. Similarly, Broken Bow Lake had a simulated local future water supply of 50,000 acre-feet/year with minimum releases for fish habitat benefits (in-stream flow and cool temperatures) of approximately 150 cfs throughout the summer. Diversions from the Little River at Idabel during 1956 were simulated with an assumed pipeline capacity of 250 cfs and a capacity of 500 cfs at the Kiamichi River below Hugo. Full diversions were assumed for about 10 days at the end of February, while no diversions were simulated in late February and early March because diversions at Hugo consumed the full pipeline capacity. Full Little River diversions of 250 cfs were made from the end of March through May. Flows in the Little River were insufficient to allow diversions from June through October. Some diversions were simulated during four small storm events that occurred in November and December. Total diversions from the Little River were 59,000 acre-feet in 1956.

Simulated annual NTWA water supply diversions from the Kiamichi River were assumed to fill the 500-cfs capacity pipeline. A supplemental diversion from the Little River below Pine Creek Lake near Idabel was simulated with an assumed pipeline capacity of 250 cfs. Diversions from the Little River near Idabel were limited to the remaining capacity at the modeled Kiamichi River intake below Hugo, the Idabel capacity of 250 cfs, or the minimum flow of 50 cfs specified at Idabel. No diversions were allowed if the flow at Idabel was less than 50 cfs and the diversion was not allowed to lower the flow below the specified 50-cfs minimum flow. The minimum simulated NTWA annual diversion was 182,000 acre-feet, the 90 percent water supply diversion was 212,000 acre-feet/year, and the average water supply volume was 265,000 acre-feet/year. Additional water supply diversions from the Little River would be possible if some of the assumed local water supply from Pine Creek Lake was sold to NTWA during the driest years.

Phase III Diversions—Kiamichi and Little Rivers

To meet increasing water supply demands during Phase III of the NTWA planning horizon, SUPER modeled annual diversions from the Kiamichi and Little Rivers of 320,000 acre-feet. Diversions from the Kiamichi River were simulated to fill the 750-cfs capacity pipeline. The Little River diversion below Pine Creek Lake, near Idabel, was simulated with an assumed pipeline capacity of 500 cfs. In this model run, an additional pipeline with an assumed capacity of 250 cfs extended to the Mountain Fork River below Broken Bow Lake, downstream of Eagletown. Diversions from the Little River, near Idabel, were limited to the remaining capacity at the Kiamichi River intake below Hugo, the Idabel capacity of 500 cfs, or the minimum flow of 50 cfs specified at Idabel. Diversions from the Mountain Fork were limited by the pipeline capacity of 250 cfs, the remaining pipeline capacities at Hugo or Idabel, or the assumed minimum flow of 50 cfs at Eagletown.

The minimum simulated NTWA annual diversion from these combined diversion locations during Phase III was 274,000 acre-feet, the 90 percent water supply diversion was 346,000 acre-feet/year, and the average water supply diversion during Phase III was 431,000 acre-feet/year. No releases were assumed from Pine Creek or Broken Bow Lakes specifically to augment the NTWA water supply diversions. Additional water supply diversions from the Little River would be possible if some of the assumed local water supply from Pine Creek and Broken Bow Lakes was sold to NTWA during the driest years.

Conclusions

Preliminary water transfer agreement terms proposed by NTWA and modeled by SUPER included a three-phase implementation to match the growing demands of the north Texas region. During Phase I, a 250-cfs pipeline to the Kiamichi River below Hugo Lake could provide a minimum dependable water supply of 120,000 acre-feet/year. During Phase II, a 500-cfs pipeline to the Kiamichi River and a 250-cfs pipeline to the Little River, near Idabel, could provide a minimum dependable water supply of at least 180,000 acre-feet/year. During Phase III, a transfer system comprised of a 750-cfs pipeline to the Kiamichi River, 500-cfs pipeline to Idabel, and 250-cfs pipeline extended to the Mountain Fork, below Eagletown, could supply a minimum dependable water supply of at least 320,000 acre-feet/year.

As mentioned, to provide full protection for water resources of the Kiamichi and Little Rivers (including Mountain Fork River) water resources, the protective in-stream flow requirements, lake level management plans, reservoir operations, and drought contingency rules assumed in the SUPER model runs are compulsory elements of any potential water supply contract with OCWUT and/or the NTWA. In particular, no specific reservoir releases would be made for NTWA that could potentially compromise the associated recreational and wildlife benefits of these valuable State reservoirs.

In conclusion, early results from modeling analyses accomplished during the initial phase of the Southeast Oklahoma Water Availability Study verify that sufficient water is available for potential sale/transfer without adverse effects to existing and future local supply and recreational needs.

SUMMARY OF PROPOSALS

As set forth in HCR 1109, the OWRB was directed to analyze and accept proposals for the development of the Kiamichi River Basin for recommendation to the Oklahoma Legislature. Individual proposals are required to be consistent with all principles and criteria established by the Kiamichi River Basin Water Resources Development Plan.

Cornerstone Principles for Proposals

Summarized and consolidated, the following are the criteria and principles set forth in the Kiamichi River Basin Water Resources Development Plan:

1. Future use of water by local citizens and entities shall be the highest priority and shall be protected by implementing stream system of origin protection provisions of State law and in setting aside a sufficient amount of water from water supply reservoirs in the basin area;
2. The present and future needs for water by all Oklahomans shall be considered the next highest priority;
3. Appropriate lake level management plans and release policies, developed by the Oklahoma Department of Wildlife Conservation, shall be implemented for the use of water from Sardis Lake, and shall include flexibility for adjustments due to future sedimentation;
4. Financing opportunities for water and wastewater infrastructure and related economic development projects within the basin shall be optimized;
5. Obligations of the State, and municipal trusts to the United States for repayment of construction and maintenance costs of the water supply storage in the basin area shall be addressed;
6. The integrity of the Kiamichi River shall be protected; and
7. Wildlife management and waterfowl areas adjacent to reservoirs shall be protected and appropriate mitigation measures will be implemented.

As noted, the OWRB thoroughly reviewed the three responses to the Request for Qualifications received in December 2000. The Board's staff, along with representatives of the Choctaw and Chickasaw Nations conducted lengthy discussions and negotiations with officials from both the North Texas Water Agency and Oklahoma City Water Utilities Trust during 2001. On January 11, 2002, Howard Barnett, Choctaw Chief Pyle, and Chickasaw Governor Anoatubby announced that negotiations with the NTWA had broken down, primarily due to disagreements related to valuation of the water and protections required by Oklahoma/Tribal negotiators pursuant to terms of a potential out-of-state water sale contract.

The following is a summary of preliminary contract provisions concerning the use of water from the Kiamichi, Mountain Fork and Little River Basins, as well as an explanation of how those provisions contained criteria consistent with the principles established by the Kiamichi River Basin Water Resources Development Plan.

North Texas Water Agency Proposal

General

The North Texas Water Agency response to Request for Qualifications, described earlier in this report and as more fully developed and set forth in the attached draft contract, indicates that

NTWA seeks a long-term commitment to utilize river flows (not water stored in reservoirs for public water supply use in Oklahoma) from the Kiamichi, Little River and Mountain Fork Rivers. In general, the NTWA would be provided only that water flowing unused out of the State of Oklahoma into the Red River or State of Arkansas. In return for the commitment to make the water available pursuant to the terms of a contract, the NTWA would pay -- in addition to all costs of pumps, pipelines, easements, overhead, maintenance, and related water transfer infrastructure -- a "commodity charge" of several billion dollars over the term of the contract. As shown in Figures 5 and 6, earlier in this report, the NTWA proposal contemplates two possible diversion points: 1) on the Kiamichi River downstream from Hugo Lake in Choctaw County, 2) on the Little River just downstream from the confluence of the Mountain Fork River in McCurtain County. The very significant advantage for Oklahoma in having the points of diversions located downstream from large storage reservoirs is that otherwise unused excess flows being released from the reservoirs for flood control, water quality, fish and wildlife, recreation and other purposes can be captured and utilized for the water sale, with little or no impact to Oklahoma.

Parties to NTWA Contract

Texas

As discussed earlier in this report, the NTWA submitted a response to the Request for Qualifications to use water from southeastern Oklahoma. Due to provisions of Texas State law, the Alliance formally organized into the North Texas Water Agency. The areas served by the NTWA are included in the area designated as Region C of the Texas Water Plan. The current population of Region C is approximately five million, although projections indicate that the area's population will double by 2050. Members of the NTWA involved in the discussions and negotiations for a contract included:

- North Texas Municipal Water District (entity involved in the 1992 contract negotiations, serving areas north and east of Dallas),
- City of Dallas,
- City of Irving,
- Tarrant Regional Water District (serving Forth Worth area), and
- Upper Trinity Regional Water District (serving areas north of Dallas).

Oklahoma

As recommended in the Kiamichi River Basin Water Resources Development Plan, approved by the Legislature in HCR 1109, officials from the State of Oklahoma and officials from the Choctaw and Chickasaw Nations drafted a State/Tribal Water Compact for presentation and approval by the Oklahoma Legislature. The compact, as drafted, would create a State-Tribal Intergovernmental Compact Commission (STICC) to administer a water sale contract. The STICC would be the legal entity to enter into the contract with the NTWA under the scenario envisioned by the drafters of the compact and those involved in recent preliminary negotiations for a water sale contract. As specified in the draft compact, the State of Oklahoma would have equal representation on the STICC with the Choctaws and Chickasaws. State members of the STICC would be appointed by the Oklahoma Governor to four-year terms with advice and consent of the Senate. Criteria for State members would be set forth by law adopted by the Oklahoma Legislature.

Amount Of Water Requested By NTWA—Comparisons

Total Requested

The total quantity of water requested by the NTWA to be made available from the Kiamichi River and the Little River and Mountain Fork River Basins is 320,000 acre-feet/year.

Comparisons

The following hydrologic information provides an interesting perspective of the amount of water requested by NTWA:

1,740,164 acre-feet/year = average flow of the Kiamichi River Basin
2,442,776 acre-feet/year = combined average flow of the Little/Mountain Fork Rivers
4,182,940 acre-feet/year = average annual flow from the three basins

The Texas request equals about seven percent of the total average amount of water flowing unused out of the three basins.

In addition to the three basins considered in the NTWA proposal, it should be noted that there are three other major river basins within the 22-county compact/Tribal area of southeast Oklahoma, each of which cold supply a significant amount of the NTWA's needs without impacting future needs in Oklahoma. These flows of these basins are:

232,404 acre-feet/year = average annual flow of Blue River basin
364,172 acre-feet/year = average annual flow of Clear Boggy basin
1,584,112 acre-feet/year = average annual flow of Muddy Boggy basin
2,180,688 acre-feet/year = average annual flow of the other three southeast basins

Together, the average annual flow of the six major basins in southeastern Oklahoma is 6,363,628 acre-feet. Additional perspectives on these amounts of water are presented below.

- Annual water use in six major basins = 117,750 acre-feet/year (2 percent of 6-basin total)
- OKC/Tulsa combined water use (1998) = 274,518 acre-feet/year (4 percent of 6-basin total)
- Statewide water usage (1995) = 1,995,840 acre-feet/year (31 percent of 6-basin total)
- New York City water usage = 1,612,800 acre-feet/year (25 percent of 6-basin total)

As evident, the six major river basins in southeast Oklahoma produce, in an average year, more than three times the amount of water than the entire State of Oklahoma uses annually for all purposes (municipal water supply, industrial, irrigation, etc.). The flows of the six river basins could support three cities the size of New York City in southeast Oklahoma and have sufficient water supplies left over for other purposes. Average flows of the Kiamichi River alone are sufficient to supply all of New York City's needs.

Phases of the NTWA Proposal/Plan

The NTWA proposes to utilize water from southeast Oklahoma in phases. The phases proposed are in five-year increments (from 2012 to 2022) and are based on the needs of the NTWA members and incorporates the time needed to build infrastructure necessary to physically transport the water from Oklahoma to Texas. These three phases, described below, reflect the

latest formal proposal from NTWA and draft contract between the State-Tribal Intergovernmental Compact Commission and NTWA.

- Phase I, securing 120,000 acre-feet/year, would be scheduled for full use by 2012. This amount could be made available at a diversion point on the Kiamichi River downstream from Hugo Lake and upstream from the confluence of the Kiamichi and Red Rivers. The water would be transported by a pipeline with a capacity of at least 250 cubic feet per second (cfs) south across the Red River to the point of delivery where the NTWA would be responsible for all pipelines, pumps, easements and other costs for infrastructure within the State of Texas to distribute water to the NTWA members.
- Phase II, for an additional 40,000 acre-feet/year, would divert water from the Little River (upstream of its confluence with the Mountain Fork River), as well as the Kiamichi, bringing the total to 160,000 acre-feet/year. Water secured through this phase would be available by 2017 and transported by a second parallel pipeline having a capacity of 250 cfs or though a pipeline previously oversized as part of Phase I at 500 cfs.
- Phase III, securing an additional 200,000 acre-feet/year, would bring the total amount of water from southeast Oklahoma to 320,000 acre-feet/year. In this phase, either one or two diversion points would be located on the Little and/or Mountain Fork Rivers prior to exiting Oklahoma into Arkansas. The water could be transported by pipeline or parallel pipelines having a total capacity of 500 cfs from the point of diversion westward along the U.S. Highway 70 corridor to a point south of Hugo, where it could run parallel to existing pipeline(s) south across the Red River to a point of delivery in Texas. Concerns about the effect of diverting flows from the Little River before it enters Arkansas are addressed in a discussion of the Red River Compact issues below. This phase, as proposed by NTWA, would be completed by 2022.

Protections For Oklahoma Under the NTWA Proposal

General

It was clearly provided in the Kiamichi Plan cornerstone principles, that the use of water for Oklahomans, particularly local uses in the basins of origin, should be the primary focus and goal of any development plans submitted to the Oklahoma Legislature. The NTWA proposal, as more specifically fleshed-out in the draft contract negotiated with the NTWA, will provide those protections.

Downstream Dependency Waiver

The issue of potential "downstream dependency" claims by Texas has elicited much concern. Professor Drew Kershen, of the University of Oklahoma Law School, contracted with the Choctaw Nation to review and provide an opinion on the matter. On November 11, 2001, Professor Kershen provided his written opinion to Governor Keating, Chief Pyle, and Governor Anoatubby.

Essentially, Professor Kershen advised that the notion of "downstream dependency" is not a legally-recognized concept or principle in water law. However, he reviewed water law principles as they could relate to the potential use of water from Oklahoma by entities in north Texas and whether such entities could somehow breach or ignore contract obligations and requirements and take or continue taking water in spite of clear contractual provisions to the contrary.

Professor Kershen concluded that north Texas entities could waive all claims to downstream dependency or other claims which could allow north Texas entities to continue to use water contrary to contractual provisions (brought about my such mitigating issues as severe drought,

unanticipated growth and need for water, etc.). Professor Kershen also pointed out that when faced with controversies between states as to use of water, the principle of equitable apportionment could be used by the U.S. Supreme Court. That principle says that if there is no written agreement between states, the state that has a need for the use of water and has already been using the water would probably prevail over a state that has elected not to use the water flowing through it. In other words, to avoid a claim at some time in the future by Texas concerning the need for water, Oklahoma would be better off by having a written contract showing use of the water for a water sale, rather than just letting the water continue to flow unused into the Red River.

With respect to downstream dependency, the States of Oklahoma and Texas are bound by the Red River Compact, an existing written agreement regarding the apportionment of water in the Red River Basin, including the waters of the Kiamichi River and Little River. In this situation, the apportionment provisions of the Red River Compact would control the use of water from Oklahoma to Texas and no Texas entity could legally claim more water than is apportioned to Texas under the Compact, regardless of the needs that may develop in Texas.

The draft State/Tribal Water Compact specifically provides that any out-of-state water sale contract must contain a provision that waives any claim the buyer may raise that concerning downstream dependency, such as claims for public health, safety and welfare, drought conditions, etc. Accordingly, the draft NTWA contract contains an express condition whereby the NTWA waives any and all claims to downstream dependency or any other kind of claim that would result in use of water not in compliance with the contract provisions, both during the contract period and after contract termination.

Present And Future Needs Of Local Areas In Oklahoma—Water Supply From Existing Reservoirs

The project proposed by the NTWA would tap into unused flows from the Kiamichi, Little and Mountain Fork River Basins; major reservoir storage allocated to water supply in those basins would not be utilized and thus available for present and future uses by Oklahomans. There are four major reservoirs in the three basins. The yield of water available from water supply storage is listed for each:

• Sardis Lake (Kiamichi River)	=	156,800 acre-feet/year	= 140 mgd
• Hugo Lake (Kiamichi River)	=	64,960 acre-feet/year	= 58 mgd
• Pine Creek Lake (Little River)	=	94,080 acre-feet/year	= 84 mgd
• Broken Bow Lake (Mountain Fork)	=	196,000 acre-feet/year*	= 175 mgd
• Total	=	511,840 acre-feet/year*	= 456 mgd

**107,000 acre-feet/year of storage (yielding approximately 137,521 acre-feet/year, or 122 mgd, of water) was recently reallocated to support Mountain Fork trout fishery releases, leaving 374,319 acre-feet/year in total water supply yield in the four lakes*

Of the 511,840 acre-feet/year of water supply yield supplied by the four reservoirs, the OWRB has issued permits to appropriate 116,282 acre-feet/year for use by Oklahomans, leaving approximately 395,558 acre-feet/year dependably available for additional use by Oklahomans from those reservoirs.

Because the NTWA proposal does not seek to utilize storage from Sardis Lake, the entire Sardis water supply storage is available for Oklahomans. To protect local uses of Sardis water supply, the OWRB adopted a rule in 1999 declaring that for permit applications to withdraw water from Sardis Lake water supply storage, 20,000 acre-feet of water shall not be available for appropriation unless the applicant's use is for the 10-county area around Sardis (LeFlore,

McCurtain, Pushmataha, Latimer, Haskell, Choctaw, Pittsburg, Coal, Atoka, and Bryan Counties). The NTWA proposal would not impact or reduce the set-aside protection set forth in the Board's rule.

In addition, the NTWA proposal to utilize river flows, rather than water supply storage, for the requested 320,000 acre-feet/year ensures protection for other storage uses (in addition to water supply). For example, the hydropower use of Broken Bow Lake is protected, as are releases to maintain the downstream Mountain Fork River trout fishery.

Present and Future Needs of Oklahomans -- Other Water Available from River Basins

As mentioned, there is an abundant amount of raw water available in the six basins in southeast Oklahoma to protect the present and future needs of all Oklahomans. In addition to the reservoir water supply available for use by Oklahomans in the three basins proposed for limited use by the NTWA, there are significant amounts of water available from other flows in the region. Atoka Lake and McGee Creek Lake, operated by Oklahoma City and located on the Muddy Boggy system, also provide supply for local use. If needs for consumptive water use in Oklahoma increase beyond the amount that can be supplied from water supply storage at the six major reservoirs in the southeast, storage set aside for other purposes could be reallocated to water supply and additional storage could be created through construction of new reservoirs in the region.

Present and Future Needs of Oklahomans -- Water for Central Oklahoma

A computer analysis of flows in the Kiamichi River Basin upstream from Hugo Lake indicates that at least 50,000 acre-feet/year of water is available for use from flows near Antlers during the driest year of record (1956). This amount is available without the need for additional reservoirs or the use of Sardis Lake (except for releases required to maintain the lake level management plan recommended by the ODWC). The Corps' computer simulation of streamflows was programmed to terminate diversions when flows fell below 50 cfs; this water could be diverted by the OCWUT approximately 20 miles to McGee Creek Lake.

As described, the OCWUT has expressed interest in utilizing water from the Kiamichi River Basin as a long-term future source for central Oklahoma. The OCWUT currently has in place the pumps and pipelines to transport water from McGee Creek Lake to Atoka Lake, and from Atoka Lake to terminal storage in Lake Stanley Draper in southern Oklahoma County. With proper agreements, the OCWUT could authorize use of its pumps and pipelines to transport water to a pipeline, allowing water to flow into Lake Thunderbird for use by the City of Norman and entities served by the Central Oklahoma Master Conservancy District. Additional agreements could be executed to provide supply to other central Oklahoma communities, including Edmond and those affiliated with the Central Oklahoma Water Resource Authority (Calumet, Yukon, El Reno, Mustang, Okarche, Piedmont, and Union City).

As evident, the NTWA proposal would not affect present or future needs in central Oklahoma.

Lake Level Management Plans

- Sardis Lake: The NTWA proposal would have no impact on Sardis Lake levels. Therefore, a lake level management plan to protect the existing fishery use of Sardis Lake (and resultant economic benefit from tourism and recreation) can be implemented without affecting the water made available to the NTWA.
- Hugo Lake: Computer simulations of water diversions from a point located downstream from Hugo Lake dam result in minimal impacts to lake levels. The Corps of Engineers

operated a seasonal pool plan at Hugo from 1995 through 2000, increasing the lake elevation to 409 feet mean sea level during the spring/summer period, then lowering the level to 404.5 feet during the remainder of the year. Some local citizens support a plan to maintain a target lake level of 409 feet, which would require a lake operations analysis by the Corps of Engineers. Protection of wildlife management areas and mitigation for any wildlife management areas inundated by permanently increasing the target lake level would be required in any change to the plan. Preliminary estimates indicate that increasing the lake level to 409 feet could yield an additional 80,000 acre-feet/year of water supply.

In addition, Hugo Lake is operated according to original Corps' design plans to release an average of 90 million gallons per day (equivalent to 100,980 acre-feet/year) for water quality. The original plans are unclear whether the water quality releases are intended to improve the quality of water in the Kiamichi River downstream from Hugo Lake or the quality of the Red River downstream from the confluence of the Kiamichi River, or both. Public concerns have been expressed that any reduction in water quality releases from Hugo Lake may cause higher chloride water in the Red River to be spread over low-lying farmlands along the Red River during floods. However, during floods, the chloride content of the Red River is reduced due to dilution from increased runoff. Furthermore, during normal flows, preliminary water quality information indicates no detectable difference in water quality on the Red River upstream and downstream from the confluence with the Kiamichi River. As a result, it appears that Kiamichi River flows, especially Hugo Lake water quality releases, have no impact on the quality of water in the Red River or on the dilution needs of industries currently discharging into it. Recent discussions with Corps of Engineers staff reveal that concerns about flow along the Red River downstream from Denison Dam at Lake Texoma primarily involve the endangered least tern, a bird species that nests on islands within the Red River channel. Higher flows protect the islands from predators, such as coyotes. Releases of high quality Kiamichi River water from Hugo Lake are not required to augment Red River flows for protection of the least tern habitat. Lower quality Lake Texoma water could be substituted to provide such protection. Use of the water quality releases for water supply by NTWA will require environmental studies and evaluation by the Corps of Engineers, which are contemplated by the NTWA proposal.

Integrity of the Kiamichi River

Concerning the original cornerstone principle for development of the Kiamichi River pertaining to protection of the River's integrity, the U.S. Fish and Wildlife Service has identified several endangered species in the Basin area. At least one aquatic species, the Ouachita Rock Pocketbook mussel, has been found in segments of the Kiamichi River. It was the view of the HCR 1066 Working Group, in 1999, that development of the Kiamichi River should not result in the endangerment of existing species or the addition of species to the threatened/endangered lists.

The Fish and Wildlife Service has not conducted a comprehensive study of the habitat requirements of the Rock Pocketbook mussel, and therefore has not determined the flow or temperature of water that will sustain or lead to recovery of the species. Computer simulations of the Kiamichi River flows upstream from Hugo Lake were programmed to provide a 50-cfs minimum flow factor in calculating the amount of water available for the NTWA proposal. That in-stream flow amount was based on similar in-stream flow levels set to protect endangered species in other states. Simulated diversions by Oklahoma City were programmed to terminate when flows fell below 50 cfs. Because that flow amount has not yet been confirmed, an

environmental study must be conducted prior to determination of the amount of water available from a downstream river diversion.

The computer simulation to confirm water availability from the Kiamichi River at a diversion point located downstream from Hugo Lake included a minimum flow factor of 25 cfs, whereby simulated diversions for the NTWA were terminated to allow 25 cfs to flow past the diversion point downstream into the Red River. As indicated below, an environmental study would be conducted to confirm that the 25-cfs minimum flow is appropriate to protect the integrity of the Kiamichi River downstream from the point of diversion and the Red River downstream from its confluence with the Kiamichi River.

Integrity of the Little River and Mountain Fork River

Although no information has been provided to indicate that there are endangered species in the Little River upstream or downstream from the confluence with the Mountain Fork River, computer simulations were run to analyze water availability in those rivers. Similar to the Kiamichi River flow simulations, the Little River and Mountain Fork computer simulation was programmed for a minimum flow factor of 50 cfs and diversions were terminated when the flow fell below the prescribed level. Again, there has been no study to determine if any endangered species exist in these areas or subsequent flows required to prevent losses or enable recovery. Such an environmental study will be required before final quantification of water availability from the Little and Mountain Fork Rivers.

Red River Compact Compliance

The Red River Compact is an agreement among the States of Arkansas, Louisiana, Texas and Oklahoma to apportion the waters of the Red River and its tributaries. The Compact was adopted in 1978 by the State negotiation teams, approved by the Oklahoma Legislature and the other three states in 1979, and finally ratified by Congress in 1980.

Regarding the apportionment of the waters that flow from the southeast corner of Oklahoma to Arkansas, the Compact provides in Section 5.03 that sub-basin 3 of Reach II includes the Little River and its tributaries above Millwood Dam. Tributaries of the Little River in Oklahoma include the Mountain Fork River (where Broken Bow Lake is located) and Glover River (on which Lukfata Reservoir is authorized but not funded by the federal government). The headwaters of Millwood Reservoir are located in Arkansas less than 10 miles from the Oklahoma-Arkansas border.

Section 5.03(b) of the Red River Compact provides that Oklahoma and Arkansas shall have free and unrestricted use of the water in sub-basin 3 within their respective states, subject to the limitation that "Oklahoma shall allow a quantity of water equal to 40 percent of the total runoff originating below" the three major reservoirs located or authorized in Oklahoma, i.e. Pine Creek Lake on the Little River, Lukfata Reservoir (proposed) on the Glover River, and Broken Bow Lake on the Mountain Fork River. In other words, the 40-percent total runoff that Oklahoma must allow to flow down the Little River into Arkansas is calculated on the runoff produced in the watersheds downstream from the three major reservoir sites. No water in Pine Creek or Broken Bow Lakes must be released to fulfill Oklahoma's obligation under the Red River Compact. The average amount of water that flows out of the Little River and Mountain Fork is more than 2.4 million acre-feet/year. A substantial amount of that water originates upstream from Pine Creek and Broken Bow Lakes and the proposed Lukfata Reservoir site; therefore, a substantial amount of the water would not be subject to the 40-percent flow requirement into Arkansas. The OWRB has calculated 40-percent lower basin runoff amount to be approximately 242,072 acre-feet/year.

Waters released from Broken Bow Lake for hydropower production (estimated to average more than 700,000 acre-feet/year) and new releases from Broken Bow Lake for the trout fishery on the Mountain Fork River downstream from Broken Bow Lake (estimated at over 137,000 acre-feet/year) are waters that originate above the Broken Bow dam site, and therefore are not included in the runoff originating below Broken Bow that must be allowed to flow into Arkansas. Based on an annual flow calculation, the NTWA proposal to divert up to 200,000 acre-feet from the Little River downstream from the confluence of the Mountain Fork would not violate the Red River Compact apportionment provision in Section 5.03(b).

In considering instantaneous flow, Section 5.03(c) indicates that accounting will be on an annual basis "unless otherwise deemed necessary to the States of Arkansas and Oklahoma." In other words, the *annual* flow amount originating downstream from the three named reservoir sites in Oklahoma is to be used to determine compliance with Oklahoma's obligation to allow 40 percent of the runoff to flow into Arkansas. However, Arkansas and Oklahoma could agree that a monthly, weekly, daily or instantaneous flow must be used to determine Compact compliance. To address the potential for using a more frequent flow accounting method, the draft contract with NTWA provides that the diversion would have to comply with the Red River Compact. Additionally, the appropriation recognized for STICC could contain a condition that requires any Little River diversion to be in compliance with the Red River Compact. As indicated previously, the computer simulations used to determine water availability on the Little River included a 50-cfs base flow protection at the potential point of diversion, which is several miles upstream from the Arkansas-Oklahoma border. Under the computer simulation, and considering the additional water from the intervening watershed, more than 50 cfs would be flowing into Arkansas. If the States of Arkansas and Oklahoma agreed, a calculation of the historical runoff originating downstream from the three dam sites would be required to determine if a more frequent flow accounting method is needed.

Environmental Studies Required Before Final Quantification

As part of the NTWA proposal and draft water sale contract, the NTWA would agree that all required environmental studies must be completed and all necessary permits and licenses received prior to construction of any infrastructure. The proposed contract would allow for a three-year study and permit/license period within which all environmental studies and necessary permits are obtained. If any required permit could not be obtained in that period, further studies could be initiated or the contract could be terminated. The total quantity of water made available would be subject to confirmation and adjustment based on results of the environmental studies (and perhaps permit conditions). Subjects that would be analyzed in the three-year environmental study period include:

- Determination of environmental impacts and any necessary mitigation for reallocation of Hugo Lake storage. As indicated above, releases from the water quality pool at Hugo Lake and impacts on the Kiamichi River downstream from Hugo and on the Red River would be part of this environmental analysis.
- Determination of flow needs in the Kiamichi River upstream from Hugo Lake for the protection of the endangered Rock Pocketbook mussel (i.e., confirm whether the 50 cfs flow is appropriate).
- Determination of flow needs in the Little River downstream from its confluence with the Mountain Fork.
- Analysis of potential impacts of diversion points after final plans and designs for those locations are completed.

No Lukfata Reservoir on the Glover River

The NTWA proposal does not require any new reservoir storage construction within any of the three major basins from which water would be diverted. There has been particular public concern regarding the Glover River, one of the last major rivers in Oklahoma where a reservoir has not been built. The Glover, a tributary of the Little River, is located a few miles east of Pine Creek Lake. Pursuant to federal law approved in 1958, Congress authorized the construction of Lukfata Reservoir on the Glover River. Three potential sites for a dam have been studied by the Corps of Engineers, although no funding has been appropriated to the Corps for property acquisition or construction. In other words, Lukfata is authorized but not funded. Pursuant to federal law, a local sponsor must agree to repay water supply storage costs of the reservoir before the Corps of Engineers could approach Congress for funding. There are no known local sponsors (municipalities, industries, etc.) who have expressed a need for any water supply from Lukfata, particularly in view of available water and storage in nearby Pine Creek and Broken Bow Lakes. In any event, the NTWA proposal does not trigger any use of water supply storage at existing reservoirs, let alone storage at any future reservoir on the Glover River.

No New Reservoir on the Little River

There have also been concerns expressed about building a reservoir on the Little River downstream from the confluence of the Mountain Fork. Some local groups opposing a water sale to Texas reported that a reservoir inundating up to 27 sections of land was proposed for the Texas water sale. Contrary to such reports, no such reservoir has been proposed. The NTWA proposal does contemplate that a diversion point could be placed at that location to obtain a fraction of the combined flows of the Little, Glover (which flows into the Little River) and Mountain Fork Rivers (which contains substantial releases from the existing hydropower plant at Broken Bow Lake and substantial releases for the trout fishery downstream from Broken Bow Lake). Although the NTWA proposal does contemplate a low water dam or off-stream diversion structure to divert the water, such a structure would be designed so that no lands outside the stream bank of the Little River would be inundated and no additional flooding during high water periods would result.

There was some initial discussion by an area developer expressing interest in recreational use of water in southeast Oklahoma, that a dam could be built on the Little River to back-up water within the channel of the Little River (not outside the banks) for some distance upstream to the actual withdrawal point, thereby saving pipeline costs. This concept, not adopted by NTWA, would also require significant feasibility and environmental study.

No Tuskahoma Reservoir on the Kiamichi River

In addition to Hugo Lake (completed in 1974) and Sardis Lake (completed in 1983), a third reservoir was authorized by Congress on the upper Kiamichi River Basin. Tuskahoma Reservoir is the third of three reservoirs proposed by the Corps of Engineers to control flooding on the Red River. Similar to proposed Lukfata Reservoir, on the Glover River, no local sponsors have shown sufficient interest or need in water supply from an additional reservoir on the Kiamichi River. In addition, local U.S. Fish and Wildlife Service staff have indicated that construction of Tuskahoma would likely cause losses of endangered mussels. The NTWA proposal does not contemplate the need for use of any water supply storage in Oklahoma. Therefore, no plans have been made to pursue funding of Tuskahoma Reservoir.

Ownership Of Infrastructure In Oklahoma

The NTWA proposal, as more clearly delineated in the draft contract, clarifies that no Texas entity will own property in Oklahoma. The HCR 1066 Working Group and Oklahoma negotiating team concur that ownership of infrastructure by a Texas water sale entity could threaten Oklahoma's control of water going to Texas. The draft contract specifies that the STICC (compact commission created by the State-Tribal Water Compact) would own all property and infrastructure, including all pipelines, easements, pumps and pumping stations, and all water rights associated with the water sale. The NTWA would have only a contractual right to have water delivered at the point of delivery within the State of Texas, just south of the Red River.

Eminent Domain

Similar to the issue involving the ownership of property and infrastructure in Oklahoma, Oklahoma officials agree that no Texas entity should be given eminent domain authority within Oklahoma. The draft contract specifies that only the STICC will have eminent domain authority in Oklahoma, and only pursuant to State law. Current State law (Title 82, Oklahoma Statutes, Section 105.3), existing in some form since before statehood in 1907, provides the right of eminent domain for the purpose of putting water to beneficial use. To make water available as contemplated in the NTWA proposal, the STICC would need to exercise eminent domain authority only to acquire easements for pipelines, or perhaps limited ownership interests, in small tracts of land at the two points of diversion. No reservoir sites are contemplated and no lands would be condemned to build new reservoirs, as explained above.

Fiscal—Financing of Infrastructure

According to the NTWA proposal, and as more clearly specified in the draft contract, the STICC would acquire all necessary easements, pipelines, pumps, etc., to make water available to the NTWA according to the terms of the contract. Additionally, significant costs would be associated with environmental studies and acquisition of permits and other authorizations needed for the use of water. The draft contract specifies that the NTWA will pay all such infrastructure and study costs to the STICC and the Commission would control all related studies. Infrastructure costs, STICC overhead costs, etc., are completely separate from and in addition to the "commodity charge" that would be assessed and paid by the NTWA and any "temporary water payments" that may be made (for short-term amounts of water that may be made available, such as in flood times, or temporary, short-term water that might be made available – for example, future supply for the City of Hugo or Western Farmers Electric Cooperative, for a period of years until needed in Oklahoma).

The draft State-Tribal Water Compact sets forth the duties and authorities of the STICC, one of which is to issue bonds to pay for infrastructure improvements needed to make water available for an out-of-state water sale. Part of the payments from the NTWA to STICC would be dedicated to the repayment of the bonds issued by STICC. There is some language in the draft contract with NTWA included for the benefit of bond counsel and bond rating agencies so that the STICC bonds could obtain a low rating (and attendant interest rates) by relying on the significant financial resources and backing of the NTWA members.

Commodity Charges

In initial discussions with the NTWA representatives, State and Tribal officials made it clear that Oklahoma holds significant value in the use of its water resources. Valuation of the water to be made available to the NTWA became a subject of extensive discussion and negotiation. Unlike other natural resources, such as oil and gas (nonrenewable resources sold by Oklahomans to

Texans) that have readily identifiable markets to determine pricing, water (a renewable resource) has no international, national or regional markets through which to establish pricing.

In 1992, the OWRB contracted with Steven Shupe and Associates to provide input into the valuation of water resources in water marketing arrangements. Mr. Shupe, who had significant experience in the western United States in valuing water supplies for water contracts, analyzed several water sales that were active at that time. He recommended that a starting place for valuing water was the buyer's "least cost alternative" approach. In other words, it was Mr. Shupe's position that a buyer, including public water suppliers, must consider alternatives to obtaining water supply, whether those alternatives include building a reservoir of their own, purchasing supplies from other entities that have surplus supplies, or treating abundant but less desirable quality water through desalinization or reverse osmosis. It is clear that most potential purchasers of water, particularly public entities, must analyze potential sources and choose the least costly alternative that meets the needs of the purchaser. Another possible method to value water made available for sale include consideration of the benefit to the purchaser. Because water is a fundamental element of life itself, such valuation is difficult at best. Although linking the value of water with projected gross revenues from the purchaser's service area, both with and without additional water supplies made available, could be useful, this method of valuation might be acceptable only if the purchaser has no alternative water source to consider.

The draft contract provides that the NTWA would provide separate payments designated as a "commodity charge." It is this charge that includes the "value of the water" to be made available to the NTWA by Oklahoma.

In the NTWA contract negotiations, it was agreed that the least cost-alternative approach to pricing the water would be appropriate. As described in the Regional Water Plan for Texas, a proposed Marvin Nichols Reservoir is identified as a future water supply alternative for the Region C area (which includes the areas served by the NTWA members). Marvin Nichols Reservoir would be located on the Sulphur River, in east Texas south of Idabel, Oklahoma. In contract negotiations with the NTWA, a cost analysis was made of the Marvin Nichols proposal. Using information from Texas' Regional Water Plan and other information provided by the NTWA, it was estimated that the total cost of Marvin Nichols Reservoir would be approximately $1.7 billion (amortized over 30 to 40 years through bonds that would be issued for payment of construction costs).

Attempting to reduce, in theory, the value of Oklahoma's water, NTWA representatives pointed out that Marvin Nichols Reservoir, as proposed, would yield approximately 619,100 acre-feet/year, much more than the 320,000 acre-feet/year to be made available from Oklahoma. They also emphasized that after the 30- or 40-year pay-out period, the storage would be owned in perpetuity by the NTWA, whereas the proposal involving use of water from Oklahoma was only for a limited term of 100 years. NTWA representatives further argued that transmission costs from the Marvin Nichols site would be less than the Oklahoma transmission costs, so the Oklahoma water value should be reduced accordingly. Information relating to the NTWA's future alternatives indicated that the Oklahoma supply of 320,000 acre-feet would not provide all the future supply needs of the NTWA area, and that Marvin Nichols Reservoir or some other alternative, such as Toledo Bend Reservoir in southeast Texas, would have to be pursued at some point, requiring significant pipeline and attendant costs.

A financial consultant hired by the Choctaw and Chickasaw Nations (Ed Cebron of the FCS Group, Inc. of Seattle, Washington) considered the positions of the Oklahoma interests, as well arguments of the NTWA interests, and calculated the reasonable value of the water using the least-cost alternative approach. Mr. Cebron calculated annual payments to be made over the 100-year term of the contract, including such factors as interest costs that would be avoided by

delaying obligations for other long-term future supplies by the NTWA, escalation based on long-term inflation, up-front payment amount, and increase in base commodity charges as additional amounts of water are made available in the development phases of the project.

According to Mr. Cebron, the "present value" of the annual payments to be made over the 100-year term of the contract equaled $339 million. Under the amortization schedule for "commodity charge" annual payments, $5.1 billion could be realized from the reasonable valuation of the water. According to Mr. Cebron's amortization, annual payments of approximately $9.5 million would be made for the first 10 years, and then increase to more than $124 million during the last seven years of the contract. An up-front payment of $35.4 million was also included in the amortization schedule. Officials from Oklahoma and representatives of the Choctaw and Chickasaw Nations agreed that the valuation calculated by Mr. Cebron was reasonable and should be required for the NTWA water sale. However, it was understood that the structure of the annual payments (i.e., how payments are amortized) would impact the total revenues received over the 100-year period.

For comparison, the total amount of $339 million (present value) for 320,000 acre-feet of water is equivalent to approximately $1,059 per acre-foot. A water sale reported in the December 2001 Water Strategist involving San Antonio and the Edwards Aquifer included a purchase price of $700 per acre-foot for 10,400 acre-feet. The San Antonio transaction was a permanent purchase, not a 100-year term lease of water as being contemplated for the NTWA.

Representatives of the NTWA made their own calculation of the waters' value and provided their own amortization of payments based on the NTWA valuation. On December 31, 2001, NTWA officials presented their calculations to officials of the State and Tribal Nations. The "present value" of the NTWA calculations was $174.3 million (about $544 per acre-foot for 320,000 acre-feet), with total of payments of $1.4 billion. NTWA representatives claimed that they had to reduce valuation in considering transmission cost differences and other factors that would be involved in the Marvin Nichols alternative.

On January 11, 2002, after further informal discussions with the NTWA officials, Howard Barnett (on behalf of Governor Keating), Chief Gregory Pyle, and Governor Bill Anoatubby jointly announced that water sale negotiations with the NTWA had been terminated in view of the significant discrepancy in the perceived value of the water.

Temporary Use Waters & Separate Charges

During negotiations, NTWA representatives indicated that the hydrologic and future needs analyses in Oklahoma showed that during short-term or temporary periods there would be additional surplus or temporary waters in reservoirs or in the Kiamichi/Little Rivers, separate and apart from the 320,000 acre-feet/year dependable amount. To utilize such additional waters, the NTWA would have to oversize the pipelines and pumps, but would be willing to do so if an agreement could be reached to quantify those amounts and assign value to the temporary use waters.

An example of such additional surplus or temporary water could include water already appropriated by Oklahoma entities in reservoir storage. For example, Hugo Municipal Authority holds about 32,000 acre-feet of water rights for the City of Hugo's use through a water storage contract with the Corps of Engineers. The storage contract is accumulating interest for the storage that is not being used by Hugo and will result in balloon payment that Hugo will be hard-pressed to make. Hugo could agree to sell a percentage of the water it holds in storage (maybe 25,000 acre-feet/year) for a temporary period (perhaps 20 to 30 years) in exchange for the payments of Hugo's entire Corps storage costs. After the period, Hugo would posses the storage in perpetuity, without further costs, and would have an abundant supply of water

reverted to them for future growth. One of the cornerstone principles adopted by the HCR 1066 Working Group and included in the Kiamichi River Basin Water Resources Development Plan report specified that the repayment obligation of municipalities for water supply storage should be addressed. A temporary water sale would be consistent with this cornerstone principle.

Similarly, Western Farmers Electric Cooperative has water rights and storage from Hugo Lake for which there is currently no future demand. Like Hugo, Western Farmers could agree to a temporary sale of water supply and have its storage costs paid off, and then a return of all its water rights in a reasonable time to meet Western Farmers' future needs.

Regarding the anticipated short-term availability of the "temporary" water, initial discussions with the NTWA indicate that they are willing to pay approximately one-half the value of the long-term water for any temporary water.

Tribal Use of Net Revenues

The use of the "commodity charge" revenues that would be paid by NTWA to Oklahoma interests (specifically, to STICC pursuant to the State-Tribal Water Compact) was not part of the discussions or negotiations with the NTWA representatives. However, NTWA representatives were agreeable and the draft water sale contract provides that STICC would work with the NTWA on sizing pipelines and pumps and in locating pipelines (such as along the Highway 70 economic development corridor) so that Oklahoma interests could take advantage of the water development and transmission for the NTWA water sale. Under the State/Tribal Water Compact, gross revenues from an out-of-state water sale would be utilized to pay the water supply cost of Sardis Lake, in addition to other costs necessary to make the water available for out-of-state sale. The remaining (net) revenues would be divided 50 percent to the State and 50 percent to the Choctaw and Chickasaw Nations.

The State-Tribal Water Compact, in Article 5.3(c), states that the Choctaws and Chickasaws may use their portion of net revenues from an out-of-state water sale only for economic development, education, tribal government programs, social service programs, road programs, tribal infrastructure development, health care, senior citizens programs, youth programs, housing programs, acquisition and management of real property, culturally relevant programs, and similar programs. Informal discussions with tribal representatives indicate that the tribal governments will welcome opportunities to coordinate with the State on use of the funds for priority projects, such as water and wastewater improvements.

State Use of Net Revenues

Like the Tribal use of their portion of the commodity charge, the State's use of its portion of the annual payment was not discussed or negotiated with the NTWA. However, two of the cornerstone principles included in HCR 1066 and the Kiamichi River Basin Water Resources Development Plan specified that financing opportunities for water/wastewater infrastructure and related economic development projects within the basin shall be optimized, and obligations of the State and municipal trusts to the United States for repayment of construction and maintenance costs of the water supply storage in the basin area shall be addressed.

The following scenarios, which are consistent with the cornerstone principles for development of water from the Kiamichi River Basin and southeast Oklahoma and are generally reflected in the draft State/Tribal Water Compact, might be considered for use of the State's portion of revenues received from a NTWA water sale:

- Create a State public trust with membership from a variety of interests appointed by the Governor with advice and consent of the Senate.

- The State public trust would adopt objective criteria that would be used for prioritization and in consideration of applications for funding of projects.
- The State public trust could be given authority to make loans and grants to eligible entities for eligible projects; loans could be low-interest or no interest.
- The State public trust could be given authority to leverage water sale revenues through issuance of bonds.
- In the enabling legislation, describe the kinds of projects eligible for funding. Preference should be given to water and wastewater projects, then other economic development projects, with initial priority to such projects that are located in or would serve persons within the area of origin of the water being provided for the out-of-state water sale, with the remainder of the funds to be used in the 22-county area subject of the State/Tribal Water Compact.
- The State public trust could be given authority to work with the OWRB to utilize the existing Statewide Water Resources Development Revolving Fund and water and wastewater infrastructure financing authority of the OWRB, allowing efficiency in using experienced OWRB staff for loan and grant financing.
- The State public trust could be given authority to work with the Oklahoma Department of Commerce for coordinating and assessing other economic development projects and funding opportunities.
- Some priority projects, such as additional funding for the Sardis Lake Water Authority water treatment and distribution system around Sardis Lake and the water storage cost owed by the Hugo Municipal Authority, could be specifically named for receipt of funding.
- Other special funding provisions could be included, such as the transfer of a severance tax of gross production tax equivalent to the State General Fund to address arguments that the interstate sale of water should be similar to the sale of oil and gas. Another special funding provision could be an in lieu of ad valorem tax amount transfer to affected counties for land taken off the county tax rolls for Sardis Lake, Hugo Lake, Pine Creek Lake, and Broken Bow Lake.

Total Potential Benefit to Southeast Oklahoma and State

Obviously, there appears to be substantial benefit possible from an out-of-state water sale involving the North Texas Water Agency. If negotiations are renewed and the NTWA is willing to compensate Oklahoma according to the valuation deemed reasonable by Governor Keating's office and officials with the Choctaw and Chickasaw Nations, approximately $5 billion could be realized for use in Oklahoma within the next 100 years. Although the Tribal portion of the net revenues would not be limited for use within Oklahoma under the draft State/Tribal Water Compact, it is reasonable to assume that, because the vast majority of Choctaw and Chickasaw Nation members reside in southeast Oklahoma and the governments of the two Tribes are located in the region, a significant portion of the water sale revenues would be utilized in southeast Oklahoma.

Another benefit from a water sale contract and revenues is the payment of the costs of water supply in Sardis Lake. In previous studies involving Sardis Lake uses, an estimate was made that the direct and indirect benefits of the Sardis Lake fishery use (based on estimated visitor counts and daily expenditures in the area) was approximately $4 million per year. The protections available in the NTWA proposal (which does not utilize any Sardis Lake storage) would allow the fishery to be the priority use of the reservoir, thereby maintaining the $4 million per year local area economic benefit. The payment of Sardis Lake costs would also relieve the

State of the burden it faces in making the annual payments, or deferring such payments with interest accumulating, and facing lawsuits relating to the annual payments in addition to the two lawsuits now pending. That blemish on the State's credit could eventually cause higher interest rates on State bonds.

In addition, net revenues from a NTWA water sale could be leveraged through bond issues, with use of bond proceeds for loans and grants for local area projects. Utilizing just $10 million of an up-front payment from a water sale for security and collateral and pledging a portion of the annual water sale revenues for payment on the bonds, it is reasonable to assume that $200-300 million could be made available for the immediate water, wastewater and economic development project needs in southeast Oklahoma.

Oklahoma City Water Utilities Trust Proposal

Primary Options

As discussed above, the Oklahoma City Water Utilities Trust (OCWUT) is interested in acquiring water rights to divert water from the Kiamichi River Basin. The distance from the Kiamichi River to McGee Creek Lake is approximately 18 miles, thereby making the Kiamichi River a logical choice for long-term future supply by central Oklahoma using current infrastructure of the OCWUT. One option for development would include the use of Sardis Lake for a water supply and an assignment or other transfer of the State's 1974 water supply storage contract rights to Sardis Lake, including the contractual requirement to make annual payments to the Corps of Engineers. The other option would have the OCWUT utilize the flows of the Kiamichi River only, without payment being made for Sardis Lake storage.

Hybrid Option

Further discussions with Jim Couch, City Manager for Oklahoma City and member of the OCWUT, and Marsha Slaughter, Director of Water and Wastewater for Oklahoma City, indicated that the OCWUT may be interested in a hybrid or combination of the two options described in the OCWUT response to the Request for Qualifications. In essence, the hybrid or combination option would have the OCWUT enter into a sub-contract with the OWRB allowing the OCWUT to utilize storage in Sardis Lake under very limited circumstances, with most of the water for the OCWUT supplied through direct diversions from the Kiamichi River.

Pursuant to the hybrid option, the first source of supply for the OCWUT would be flows in the Kiamichi River at a location near Moyers (south of Antlers) or some other point of diversion to avoid unacceptable impacts to the endangered Rock Pocketbook mussel. Hydrologic analysis, using a minimum flow factor of 50 cfs as a reasonable estimate needed for protection of the mussel, indicates that approximately 50,000 acre-feet/year (~45 mgd) is dependably available for an OCWUT diversion.

After the direct diversion use from the Kiamichi River, the hybrid option would provide that the next available supply would be from releases used to maintain the lake level management plan for Sardis Lake. In 1992, the Oklahoma Department of Wildlife Conservation developed a lake level management plan to optimize the fishery use of Sardis Lake. That plan called for releases to be made from September through February each year to lower the level of Sardis by four feet to allow the planting of millet along the shoreline. The OCWUT could divert such released water as it flows down the Kiamichi River to the OCWUT point of diversion. The hybrid plan discussed with OCWUT officials indicated that additional water could be released from Sardis Lake, but only in the event of an emergency drought situation declared by the Governor.

This would be a more limited condition for use of Sardis Lake storage than set forth in OCWUT's first option, detailed below.

Amount Requested

OCWUT Option 1

Option 1 contemplates usage of the full available yield at Sardis Lake of approximately 149,762 acre-feet, equivalent to 133 million gallons per day, with the commitment to an adopted lake level management plan for 20 to 40 years. After that time, OCWUT would manage inter-basin transfers in accordance with its ownership rights in McGee Creek, Atoka Lake, and Lake Stanley Draper, and release policies (including recognition of the ODWC Sardis Lake level management plan) to the extent they will not endanger or jeopardize municipal/industrial water supply or place undue burdens on other lake level management and balancing policies elsewhere in its system. Based on use projections for central Oklahoma, full use of Sardis Lake water would not occur for 50 to 70 years.

OCWUT Option 2

Option 2 would utilize direct diversions from the Kiamichi River (near Moyers) at a maximum 200 cubic feet per second (without impacting the Sardis Lake or Hugo Lake yields or lake level management plans and protecting the Kiamichi River with a prescribed base flow). According to a Corps of Engineers hydrologic investigation and analysis by OCWUT, this would dependably yield approximately 50,000 acre-feet/year if a West Elm Creek Reservoir terminal storage site is constructed.

Protections for Oklahoma

Local and Central Oklahoma Future Needs

The OCWUT is in a position to assist local areas around Sardis Lake with plans for drinking water treatment and distribution systems. Furthermore, the OCWUT has infrastructure in place to utilize waters from the Kiamichi River Basin in areas along the pipeline that connects McGee Creek Lake, Atoka Lake, and Lake Stanley Draper. Finally, the OCWUT has infrastructure and financial capabilities to partner with central Oklahoma communities (such as City of Norman, City of Edmond, Canadian County cities, etc.) to make Kiamichi River Basin water available as the long-term future source for central Oklahoma.

Present and Future Needs of Local Areas—Water Supply from Existing Reservoirs

OCWUT's Option 1 includes use of only Sardis Lake under limited circumstances. Storage in other large reservoirs in southeast Oklahoma, including Hugo, Pine Creek, and Broken Bow, would not be impacted by this plan, or OCWUT option 2. Therefore, all water supply storage in those reservoirs would be available for local use and all existing uses would be protected.

Present and Future Needs of Oklahomans—Other Water Available from River Basins

As indicated in the discussion of the NTWA proposal, the average annual flow from the six major river basins in southeast Oklahoma is more than six million acre-feet. The OCWUT options would entail a maximum use of less than 150,000 acre-feet/year under option 1 (remaining dependable supply from Sardis Lake for long-term future needs for local use and central Oklahoma), which is just 2.5 percent of total average flows.

Lake Level Management Plans

OCWUT's Option 1 (use of Sardis Lake storage with limitations) would include the lake level management plan to protect the fishery for at least 20 to 40 years. After that time, when OCWUT's municipal and industrial needs develop, Option 1 would recognize the lake level management plan as a target in a release schedule. In most years, the lake level management plan could be implemented, and only in significant drought years would there be municipal and industrial use of Sardis Lake water supply storage. Option 2 would not impact a lake level management plan for Sardis Lake.

Neither option would impact Hugo Lake storage or any lake level management plan implemented for Hugo Lake.

Integrity of the Kiamichi River

OCWUT's Option 2 (direct diversions from the Kiamichi River) take into account the need for a base flow of 10 cfs (equivalent to 7,240 acre-feet/year) for protection of the river. As indicated in the discussion of the NTWA proposal, which utilized 50 cfs as the base flow for protection of the Kiamichi River (as well as the Little River), the U.S. Fish and Wildlife Service has not conducted studies to determine the flow and temperature needs for the endangered mussel habitat. Therefore, at this time, it is unknown what base flow amount will be required to fully protect the Kiamichi River and further environmental studies will be required.

Environmental Studies Required Before Final Quantification

As indicated above, an environmental study will be necessary to quantify the required minimum flow in the Kiamichi River. That amount will then be used to finalize the amount that could be withdrawn by the OCWUT under the Option 2 direct diversion scenario.

In connection with the protection of the endangered rock pocketbook mussel, the U.S. Fish and Wildlife Service indicated in a 1999 letter that moving the OCWUT's diversion point to a location downstream from Highway 3 at the headwaters of Hugo Lake would likely address concerns related to the endangered mussel.

No New Reservoirs

The OCWUT options for development of waters of the Kiamichi River do not entail the construction of any new reservoirs. Therefore, no environmental impact studies involving new reservoirs would be triggered.

Ownership of Infrastructure and Storage

Under Option 1 or 2, the OCWUT would have to construct pumps and pipelines to divert water from the Kiamichi River, either at Moyers or at a location acceptable to protect the endangered mussel. A pipeline 18 or more miles long from the Kiamichi River diversion site to McGee Creek Lake would be constructed. The OCWUT would own all infrastructure.

Regarding the Sardis Lake water supply storage, Option 1 indicates that the OCWUT is willing to "purchase" the Sardis storage from the State. Such a "purchase" of storage could be implemented by an assignment from the State to the OCWUT. However, the 1974 contract contains a provision that the Corps of Engineers must approve such an assignment, which could result in updated water supply storage costs.

Eminent Domain

In obtaining a permit to use water from the Kiamichi River basin, the OCWUT could utilize existing State law regarding the appropriation and use of water (Title 82 Oklahoma Statutes,

Section 105.3) for the power of eminent domain necessary for the storage and conveyance of water. This authority could be utilized to obtain easements for pipelines, pump stations, and related infrastructure.

Payment by OCWUT

Under Option 1 (use of Sardis Lake storage), the OCWUT would agree to assume the obligations to repay the federal government under the 1974 Sardis contract.

When Sardis Lake was completed in 1983, the State (through the Water Board) began making annual payments, but has since stopped. The total water supply costs for Sardis Lake, as determined by the Corps, are as follows:

Storage	=	$37,766,310	
Conduit	=	121,213	
Water intake structure	=	481,045	(including cost disputed by State)
Total	=	$38,368,568	

Total invoiced by the Corps of Engineers excluding late payment interest (1983-2001)	=	$13,233,911.36
Total paid by Oklahoma to the Corps of Engineers	=	$ 4,415,640.49
Difference (arrearage claimed by Corps, less claimed interest)	=	$ 8,818,270.87

The annual payment obligations include annual operation and maintenance costs that may range from under $200,000 to more than $400,000 per year, as well as any major rehabilitation work that may be necessary for Sardis Lake. The OCWUT would also agree to assume the arrearage (~$8.8 million) now claimed by the Corps of Engineers for annual payments, which have not been paid by the State. The OCWUT would also pay the late payment interest claimed by the Corps on the annual payments, which have not been paid by the State. Finally, the OCWUT is agreeable to work with local interests in operating and maintaining local water systems.

Option 1 does not include a reimbursement of the $4,415,460 paid by the State to the federal government, or any portion of the "principle" costs paid by the State as part of the payments made to the federal government.

Under Option 2 (direct diversions from Kiamichi River flows only), the OCWUT would not pay the State any proceeds for use of the water. No citizen or community of the State of Oklahoma pays for use of water from streams or reservoirs in Oklahoma. The only costs associated with obtaining water rights in Oklahoma include minimal application fees for appropriation permits and the costs of publication of notice and any hearings held if protests are received. The State does not charge for use of public water that is subject to appropriation. Municipal use, such as that proposed by the OCWUT, requires expenditures for storage (either the costs of building its own reservoir or obtaining storage rights from the federal government) and expenditures for pumps, pipelines and treatment and distribution systems, as well as ongoing operation and maintenance costs of the infrastructure.

Total Potential Benefit to Southeast Oklahoma and State

OCWUT's Option 1 would relieve the State of the obligations set forth in the 1974 contract for the repayment of Sardis Lake. The outstanding balance of the total storage cost for water supply at Sardis Lake is more than $38 million, with on ongoing operation and maintenance cost of $200,000-400,000 per year.

The Sardis Lake area could benefit by utilizing the OCWUT offer to assist with the operation and maintenance of any local water treatment and distribution systems (such as that to be constructed by the Sardis Lake Water Authority). To the extent that the OCWUT pays the costs of Sardis Lake water supply (if Option 1 is chosen for implementation), revenues from a sale of water to the NTWA will not be needed for the Sardis Lake payments and can be applied to water/wastewater infrastructure and economic development needs in southeast Oklahoma.

Finally, a significant benefit to Oklahoma can be realized by addressing the long-term future water supply for central Oklahoma. As the central Oklahoma area grows, its demand for water will increase. If other central Oklahoma communities can enter into partnerships and agreements with the OCWUT for the use of water from the Kiamichi River Basin, the assured source of supply should allow the central Oklahoma communities to continue growth and economic development. This prosperity can also result in significant beneficial impacts for other areas of Oklahoma, including the southeast.

Summary of Latest Contract Proposals
Southeast Oklahoma Water Resources Development Plan

Oklahoma City Water Utilities Trust	Amount of Water Requested	Year Available	Diversion Point(s)	Monetary Benefit/Compensation to Oklahoma
Option 1	149,762 ac-ft/yr (Sardis Lake yield) in accordance with lake level plan	2020-40 (initial use)	Kiamichi River (north of Antlers at Moyers) or Kiamichi River (just below Highway 3 bridge) or Hugo Lake (southern end)	~$38 million ▪ assumption of Sardis Contract obligation
Option 2	55,000 ac-ft/yr (available Kiamichi River flows)	2050-70 (full use)		no payment (public water)

North Texas Water Agency	Amount of Water Requested	Year Available	Diversion Point(s)	Monetary Benefit/Compensation to Oklahoma
Phase 1	120,000 ac-ft/yr	2012	Kiamichi River (downstream of Hugo Lake)	$339 million ▪ up-front payment = $35.4 million ▪ escalating payments = $9.5-$124 million/year ▪ amortized over 100 years = $5.1 billion
Phase 2	160,000 ac-ft/yr (+40,000 ac-ft/yr)	2017	Kiamichi River (downstream of Hugo Lake) and Little River (upstream from confluence of Mountain Fork River)	
Phase 3	320,000 ac-ft/yr (+200,000 ac-ft/yr)	2022	Little River (downstream from confluence of Mountain Fork River)	

WATER QUANTITY CONVERSION CHART

To convert from one water quantity measurement to another, multiply the existing measurement number by the number contained in the appropriate column at right.	**CFS**	**GPM**	**MGD**	**AC-FT/year**	**AC-FT/DAY**
CFS (cubic feet/second)	---	450	.646	724	1.98
GPM (gallons per minute)	.00222	---	.00144	1.61	.00442
MGD (millions gallons/day)	1.55	695	---	1120	3.07
AC-FT/year (acre-feet/year)	.0014	0.62	.00089	---	.00274
AC-FT/DAY (acre-feet/day)	.504	226	.326	365	---

For example, to convert 140 million gallons per day (mgd) to cubic feet per second (cfs), you would multiply 140 times 1.55 to come up with the desired conversion, 217 cfs.