Kansas Water Assurance Districts*

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I. INTRODUCTION

Like many western states, Kansas has a number of large, federally constructed reservoirs, which are managed by state and federal agencies for various purposes, including water for municipal and industrial (M & I) use. Having given assurance to repay the federal government under the Water Supply Act of 1958,1 Kansas has attempted to market this water through long-term, take-or-pay contracts, with mixed results. The State has contracted to sell large amounts of stored water, but not enough to make up payments it has assumed to the federal government. This problem is due in part to the reluctance of M & I users, most with water rights from either the rivers downstream from the reservoirs or from alluvial wells, to contract to purchase water that is not needed most of the time.2 Yet, occasional

2. The eastern 40 percent of Kansas contains more than 70 percent of the state’s population. Most of that population is at least partially dependent on surface water supplies. Statistical distributions of the daily flows are highly skewed. For the vast majority of streams mean yield is exceeded less than 20 percent of the time. Median flows are typically less than half of mean flows. Very few streams are truly perennial. In fact, with very few exceptions, most streams have expe-
drought periods occur in Kansas when normal supplies cannot meet the needs of cities or industries. The Kansas Legislature has provided for a new type of special water district—the Water Assurance District (WAD)—as a mechanism that would accommodate both the need of the State to fulfill its repayment obligations to the federal government, and the need of cities and industries to have sure water supplies during drought conditions.³

This Article analyzes several aspects of the WAD concept. First, it places Kansas in perspective with regard to its neighboring Great Plains States and their Corps of Engineers water-supply experiences. Next, it describes the historical background that led to the idea of creating this new type of special district, gives the legislative history of the WAD Act, and summarizes the Act. The Article then describes how one Kansas river basin has rejected the WAD concept and how two others have adopted it. Finally, the Article discusses several legal questions suggested by the WAD Act.

II. M & I STORAGE GENERALLY IN THE GREAT PLAINS STATES

The Corps of Engineers has constructed numerous dams in the tier of states from North Dakota to Texas, with increasingly larger numbers of reservoirs per state starting in Kansas and moving south through Texas. Many of these reservoirs have storage devoted to water supply purposes. North Dakota, for example, has “municipal water supply” storage in Lake Sakakawea in the Garrison Project, “water supply” storage in Bowman-Haley Lake, which is located in South Dakota as well; and “multipurpose storage” in Pipestem Lake—all in the Missouri River Basin.⁴ In the Red River Basin, Lake Ashtabula and

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³ Kansas statutes provide for establishing a number of kinds of special water districts for various purposes. The first type of district allowed in Kansas was the drainage district, to provide for flood control and drainage. Later, legislation was enacted enabling formation of districts for irrigation, watershed protection, levee construction, rural water, soil conservation, county and township sewers, water supply and distribution, groundwater management, and public wholesale water supply.
Homme Lake provide municipal water. South Dakota has "water supply" storage in Lake Francis Case in the Fort Randall Project and "irrigation, power, navigation, and other beneficial uses" in Lake Oahe, located in North Dakota as well. Nebraska's Harlan County Lake stores water for "improved municipal water supply...resulting from the stabilized downstream flow." Kansas has "water supply" storage in Council Grove Lake, El Dorado Lake, Elk City Lake, Fall River Lake, John Redmond Reservoir, Marion Lake, Clinton Lake, Hillsdale Lake, Milford Lake, Perry Lake, and Toronto Lake; "municipal and industrial water supply" in Pearson-Skubitz Big Hill Lake and Tuttle Creek Lake; and multipurpose storage to "supplement flows downstream for water supply" in Melvern Lake and Pomona Lake. In Oklahoma the Corps has "water supply" in twenty lakes; "municipal water supply" in Canton Lake and Foss Reservoir; and "municipal and industrial water supply" in Waurika Lake. In Texas, the Corps of Engineers has twenty-nine reservoirs with supply authorization.

Kansas seems to be somewhat unique in regard to its method of obtaining storage in these reservoirs and its difficulty in

5. Id. at 26-27.
8. U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT, WATER RESOURCES DEVELOPMENT IN KANSAS 1989 7-14, 23-25, 29, 32-34, 36 (1989) [hereinafter WATER RESOURCES DEVELOPMENT IN KANSAS 1989]. For Tuttle Creek, see Contract Between the State of Kansas and Kansas River Water Assurance District No. 1, infra note 113; Memorandum of Understanding Between the State of Kansas and the U.S. Department of the Army Concerning the Purchase of Municipal and Industrial Water Supply Storage from Robert K. Dawson, Assistant Secretary of the Army, to Joseph F. Harkins, Director of Kansas Water Office, infra note 35.
marketing its supply of water. Only Kansas has both large amounts of uncommitted storage water and payment obligations to the Corps that exceed corresponding revenue. Neighboring states either have different problems or have approached them differently. North Dakota's Garrison Project, for example, was constructed prior to enactment of the Water Supply Act of 1958. The recently completed Southwest Water Pipeline project that brings water from Lake Sakakawea in the Garrison Project to Dickinson, North Dakota will divert water from an intake located at the bottom of the lake. North Dakota claims it is diverting water from the river flow, not from storage. ¹¹ Moreover, the State itself has no contracts for M & I storage with the Corps. Although the City of Parshall obtains municipal water supply from Lake Sakakawea, it makes no payments for that water. ¹²

In South Dakota, the State has not contracted with the Corps to pay for M & I water, but systems like the Walworth, Edmund & Brown (WEB) use stored water without paying the Corps. ¹³ Nebraska's Harlan County Lake may aid cities downstream, but no water out of the lake is sold by the Corps to cities or industries. ¹⁴

As a state, Oklahoma has not been a major party in M & I storage projects. The Oklahoma Water Conservation Storage Commission, now expired under sunset laws, ¹⁵ signed resolutions with the Corps to give the assurances-of-need required by the Water Supply Act to get projects off the ground, but the Corps later signed contracts for specific project storage with individual cities and industries rather than the State. Only in the Sardis Reservoir case has Oklahoma itself been the principal local contracting entity. The Oklahoma Water Resources Board, which

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¹¹ Telephone Interview with Tim Fay, Director of the Southwest Water Pipeline Project, State Engineer's Office (Oct. 8, 1991).
¹² Telephone Interview with Loren Huffman, City Auditor for the City of Parshall (Oct. 8, 1991). When the diversion was first constructed in 1986, the Corps wanted to charge for the water, but the Corps later decided not to do so.
¹³ Telephone Interview with John Guhin, Assistant Attorney General, South Dakota (Oct. 16, 1991); Telephone Interview with Del Brosz, State Department of Environment and Natural Resources, Water Rights Section (Oct. 16, 1991). See John P. Guhin, The Law of the Missouri, 30 S.D. L. REV. 346, 485 (1985) for background information regarding the Corps's attempt to have WEB pay for the water. Some entities have contracts for municipal water from Bureau of Reclamation reservoirs in South Dakota. For example, Rapid City and other smaller entities have contracts with the Bureau for water from Pactolus Reservoir.
¹⁴ Telephone Interview with Jeff Abegglen, Park Manager of Harlan County Lake in Republic City, Nebraska (Oct. 22, 1991).
¹⁵ OKLA. STAT. tit. 74, § 3903(8) (Supp. 1977).
took over the responsibilities of the Water Conservation Storage Commission, is now marketing the water from that reservoir. In 1991 the Oklahoma Legislature enacted a statute that has enabled the Board to sell surplus water to the North Texas Water District, which provides water to the eastern side of the Dallas metropolitan area. Negotiations are being conducted between the parties on amounts of water, price, and length of the contract’s term. Other legal questions include who will obtain the water appropriation right and storage right, and how will acquisition of the rights be accomplished.

Texas’s approach to water storage and marketing has also been different than Kansas’s. In Texas the water districts and river authorities have contracted with the Corps for the storage of water and the selling of water through contracts to local interests. For example, the Brazos River Authority, which has nine Corps of Engineers reservoirs and many nonfederal reservoirs, has only three percent of its water totally uncommitted. The rest is under contract or under option, and the Brazos River Authority has contracted with the Corps of Engineers to reallocate 50,000 acre-feet of water in Waco Lake from flood control storage to water supply storage.

The problem of unsold supply water exists in one Texas reservoir that is not a federally constructed reservoir. The Sabine River Authority has constructed three reservoirs, and water supply storage in two of these, Lake Fork Reservoir and Lake Tawakoni, is sold out and committed. In contrast, while Texas’s share of Toledo Bend Reservoir’s yield is 926 million gallons per day (mgd)—the same as Louisiana’s—only 2 mgd have been sold. The Authority constructed Toledo Bend with a $15,000,000 loan from the State of Texas and needs revenue to repay that debt. Studies are currently underway with the San Jacinto River Authority about possibly selling up to 600 mgd for use in the Houston area.

In short, M & I water in the Corps reservoirs of the states north of Kansas is being used without payment. In the states to

17. OKLA. STAT. tit. 82, § 1085.2AA. (Supp. 1992).
19. See WURBS, supra note 10, at 50-52.
20. Telephone Interview with Sheryl Franklin, Brazos River Authority (Sept. 30, 1991).
the south, almost all of the water is committed to local entities rather than to the state. Kansas alone seems to have large amounts of uncommitted storage water coupled with State payment obligations to the Corps.

III. HISTORICAL BACKGROUND OF THE KANSAS WATER ASSURANCE DISTRICTS

A. Federal Reservoirs Prior to the 1958 Water Supply Act

The federal multipurpose reservoirs in Kansas have been designed to store water for recreation and to provide for numerous uses upon release: M & I, navigation, water quality enhancement, irrigation, and fish and wildlife. Each reservoir has its own storage space for each function and its own purposes for the use of the water.

The federal government owns the land and storage space when the reservoir is completed, having obtained these by purchase or condemnation. It may keep the storage space or sell part of it to the State or a local entity, as discussed below. Water stored by the Corps of Engineers for various federal purposes like navigation, fish and wildlife protection, or water quality has apparently not been stored under water rights held by the federal government. In Kansas, for example, the federal agencies have never filed applications for water rights with the Chief Engineer’s office; rather, storage has been done as a secondary benefit of flood control operations on two bases: by tacit approval of state agencies, and through contracts between the Corps and the Kansas Water Office dealing with water supply or quality use. 22

The federal government completed construction of Kanopolis Reservoir in 1948, the first of seventeen such reservoirs eventually built in Kansas. Authorization and funding for many of these reservoirs was provided for by Congress through various flood control acts beginning in 1936, 23 which were in turn based on various plans, reports, and studies done by the U.S. Corps of Engineers and the Bureau of Reclamation at the request of Congress. The comprehensive studies of the Missouri River Basin by the Corps (the Pick Report 24) and the Bureau (the Sloan

Report\textsuperscript{22}) together with the consolidated and reconciled Pick-Sloan Report\textsuperscript{26} serve today as primary research documents providing background on the purposes for which each of the federal reservoirs were constructed.

Reservoirs authorized and constructed prior to 1958 had various purposes according to these Congressional reports and legislation, although it is no easy task to ascertain these purposes with certainty. In a 1980 article, for example, I concluded that under the original Congressional studies and acts, Tuttle Creek Reservoir had initially been authorized for navigation, flood control, and "other purposes"; that possible additional uses for water quality, recreation, and M & I might be permitted under later studies and acts; but that irrigation was not a permitted use of the water.\textsuperscript{27} It took crises in the late 1970s and early 1980s to determine that Toronto Reservoir (completed in 1960) and Fall River Reservoir (completed in 1949), both in the Verdigris River Basin, had been authorized to provide low-flow supplementation for M & I use and water quality, and that the State did not have to reimburse the federal government for storage for these releases.\textsuperscript{28}

\textbf{B. Federal Reservoirs After the 1958 Water Supply Act}

The Water Supply Act of 1958\textsuperscript{29} provided a mechanism for federal agencies to build storage space for M & I use in their reservoirs and then to provide that space to a state or local entity. The state or local entity gives assurance of the need for the space and assurance that it will repay the federal agency. The assurance is given prior to construction of the reservoir. Then, under a long-term contract, the state or local entity obtains

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\textsuperscript{25} S. Doc. No. 191, 78th Cong., 2d Sess. (1944).
\textsuperscript{28} The primary purpose of the authorization was for flood control. Conservation storage was provided as an incidental benefit . . . to provide permanent pools in the reservoirs for recreation and for wildlife preservation and to increase low-stream flow, thereby providing needed water for municipal and industrial use. . . . To restrict the authorized low flow would be counter to the authorization.

Reimbursement for the conservation storage is not appropriate.

Memorandum from John F. Wall, Director of Civil Works, HQ Army Corps of Engineers, Washington, D.C., to the Commander, Southwestern Division, Sept. 21, 1983 (on file with author), under a subject heading Verdigris River Basin, Kansas—Releases from Fall River, Toronto and Elk City Lakes [hereinafter Memorandum from John F. Wall].

\textit{See also infra} text accompanying notes 94-97; Peck, supra note 22, at 814-26.
the space for the M & I storage. In Kansas, the exceptions to these contract provisions are Toronto and Fall River Reservoirs, mentioned above.\textsuperscript{30} Kansas provided assurance of need for storage in fourteen reservoirs and signed repayment contracts for nine reservoirs, thereby acquiring control of the storage space.\textsuperscript{31}

To use the space for water storage, the state or local entity has to acquire a water right.\textsuperscript{32} The local entity would acquire an appropriation right, which would enable it to store water and call for releases from storage. If the State is the involved entity, the Water Office would file a water reservation right, which must be approved by the Chief Engineer.\textsuperscript{33} The State would then contract to sell water to M & I users under its water-marketing program. In 1986 the Kansas Legislature amended the Water Storage Act to permit water-quality storage under a water reservation right.\textsuperscript{34} The Corps stores water-quality inflows in its pool, but storage is accomplished under the water reservation right held by the State.\textsuperscript{35} As noted above, the Corps has never directly filed for water rights in Kansas, but this procedure for storing water for water-quality releases is at least connected to a filed water right, which means that the water quality releases can then be protected by the Chief Engineer against diversion by downstream water right holders.\textsuperscript{36}

C. The Kansas Water-Marketing Program

With enactment of the Kansas Water Plan Storage Act\textsuperscript{37} in 1974, the State established a water-marketing program for selling

\begin{footnotes}
\item[30] See supra text accompanying note 28.
\item[35] Memorandum of Understanding Between the State of Kansas and the U.S. Department of the Army Concerning the Purchase of Municipal and Industrial Water Supply Storage from Robert K. Dawson, Assistant Secretary of the Army, to Joseph F. Harkins, Director of Kansas Water Office, 2-4, pts. 3, 4.a. (Dec. 11, 1985) (on file in the Kansas Water Office) [hereinafter MOU]; see also Notice for Acquisition of Water Reservation Right to Divert and Store Water in the Conservation Storage Water Quality Capacity of Tuttle Creek Reservoir Under Authority of the State Water Plan Storage Act, Original Notice Filed May 10, 1989, File No. 39,428-AR-19, signed by the Director of the Kansas Water Office and filed with the Division of Water Resources (Oct. 15, 1990).
\item[36] See Peck, supra note 22, at 797, 814-26, 831-35.
\end{footnotes}
water from federal reservoirs. Under this program, the State can sell water under long-term contracts to cities and industries. These contracts contain a stated price per 1000 gallons of water, a take-or-pay provision that requires payment of fifty percent of the annual charge whether or not the water is taken, and provisions that allow adjustments in the price and quantity of the water.\textsuperscript{38}

With the marketing program, the legislature envisioned selling enough water to enable the State to pay the federal government for the contracted storage, but the State never sold enough water prior to 1990 to produce a positive cash flow. As shown in the 1982 report to the Governor on the marketing program, marketing contract revenues for the years 1978 through 1982 ranged from $311,000 in 1978 to $799,000 in 1982, while repayments to the federal government ranged from $886,000 in 1978 to $1,679,000 in 1982.\textsuperscript{39} In that report, the Water Office made projections of revenue versus repayment based on different costs per 1000 gallons of water. Based on 5.735 cents per 1000 gallons, it would take until the year 2000 before revenues exceeded repayments; at 6.154 cents per 1000 gallons, it would take until after 1995; and at 7.402 cents per 1000 gallons, it would take until 1995.\textsuperscript{40} This problem was also discussed in early versions of the Water Plan. In the 1985 Management Section on Large Reservoir Management, the Plan stated the following:

Original cost of the water supply storage in the nine reservoirs approaches $69 million which is being paid back to the federal government under low interest rates through nine repayment agreements, each over a 50-year period. In addition, operation and maintenance costs which vary annually are charged to the state on a reservoir-by-reservoir basis. The annual payment to the federal government was about $1.8 million for FY 1984, while revenues from the marketing program were $1.09 million. The balance has been drawn from the State General Fund. These negative cash flows are expected to continue through the century.\textsuperscript{41}

\textbf{D. The Kansas State Water Plan}

In its 1984 water planning studies, the Water Office sought a solution to the two-pronged problem: first, the State had not

\begin{flushleft}
\textsuperscript{38} Id. §§ 1306-1308.
\textsuperscript{39} Seventh Report, supra note 31, at 33.
\textsuperscript{40} Id. at 33-34.
\textsuperscript{41} Kansas Water Office, Kansas Water Plan, Management Section, Sub-section: Large Reservoir Management 2 (1985) [hereinafter Kansas Water Plan].
\end{flushleft}
adequately marketed water to provide a positive cash-flow; and second, the down-stream M & I users had not secured the use of stored water in low-flow periods. The reason for this second problem was that even though sufficient water was stored in upstream reservoirs, legal mechanisms did not exist to provide effective release of the water. To provide relief, the State, according to the Water Plan adopted by the Water Office and the Water Authority, had to amend its statutes to enable Kansas to obtain additional storage in the reservoirs and to establish Water Assurance Districts.  

1. Obtaining Additional Storage

Although Kansas had been unsuccessful in marketing its water, it still sought additional storage space because it wanted better coordination of reservoir releases: "[f]rom the public viewpoint systemwide operational plans which optimize pool stability, as contrasted to excessive fluctuation of any single project, are desirable." The reservoirs in the Kansas River Basin illustrate this need for additional storage. Kansas had contracted for M & I storage in Milford, Perry, and Clinton, but not in Tuttle Creek. Cities and industries are located up and down the River, some below only one reservoir, others in between, and still others below all four. If storage in Tuttle Creek, Kansas's largest reservoir, and in other reservoirs could be reallocated from water quality or other conservation purposes to M & I water supply and if coordinated releases could be made, additional waters could be available to help Kansas cities and industries through drought periods. The Corps of Engineers and the State of Kansas entered into a Memorandum of Understanding (MOU) on December 11, 1985, to carry out this reallocation. The purpose was to address various problems stated in the MOU, the most important of which was the following:

d. The State water marketing program, utilizing water supply storage in Federal reservoirs, was designed to provide a dependable water supply. However, some entities have purchased this storage only as "insurance" for use during sporadic low flow conditions. Water supply releases made to these entities during low flow conditions are difficult to protect and much of the water is lost in transit. Maintenance of a regulated flow to meet both water supply and minimum

42. Id. at 2, 7.
43. Smith & Lampe, supra note 2, at 2.
44. MOU, supra note 35.
flow standards would be far more efficient to administer.45

The MOU provided that the Corps would conduct reallocation studies on nine reservoirs and that the State intended to purchase the reallocated storage. The purchase would be financed "partially from revenues generated from the State's proposed Water Assurance Program."46 Kansas would be given a right of first refusal option on all storage reallocated.47 A unique aspect of the Kansas MOU, causing it to be dubbed "the infamous Kansas MOU" by some, is that the purchase price of the storage would be considered "as if it were authorized originally as municipal and industrial water supply storage,"48 meaning that as-built, rather than current, costs and interest rates would apply.

The Corps and Kansas signed a contract dated May 1, 1990, for the purchase of reallocated storage in Tuttle Creek.49 The contract gave Kansas the right to an estimated 27,500 acre-feet between certain stated pool elevations;50 the right to withdraw water or order releases from that storage;51 and the right to construct necessary diversion works.52 Kansas in turn agreed to pay the Corps an amount for project investment costs based on

45. Id. at 1-2. Other problems were as follows:
   a. Water quality releases are not protected by the State.
   b. The State has not obtained reservation rights to store inflows into Federal water quality storage.
   c. The State has established minimum flow standards (for water quality, fisheries purposes, etc.) on several streams below Federal reservoirs. The State has not yet coordinated the program to maintain these flows with Federal reservoir operating plans.
   
   e. Water quality standards and storage to meet these standards were developed prior to enactment of Public Law 92-500. This Act shifted the burden from the assimilative capacity of the rivers to the point of discharge. Operations of the projects have not been modified to reflect current water quality standards. Because of this, certain amounts of storage may not be used currently for the highest and best uses.

Id.

46. Id. at 2.
47. Id. at 4-5.
48. Id. at 5.
49. Contract Between the United States of America and State of Kansas for Water Storage Space in Tuttle Creek Lake, Kansas, Contract No. DACW41-90-C-0042 (May 1, 1990) (on file with the Kansas Water Office) [hereinafter Tuttle Creek Contract]. The Contract was approved by the Assistant Secretary of the Army on May 8, 1991. Letter from Wilbur H. Boutin, Jr., Colonel, U.S. Army District Engineer, to Joseph F. Harkins, Director, Kansas Water Office (June 7, 1991) (on file with author).
50. Id. art. 1(b)(1).
51. Id. art. 1(b)(2).
52. Id.

2. Passage of the WAD Act

The second prong of the Water Plan's proposal to mend the problems in the water-marketing program involved legislative enactment of the WAD statute. The legislative history and a description of the Act are provided in the next section.

IV. The Water Assurance District Act

A. Legislative History

The seeds of the current assurance district program first appeared in the 1985 Kansas Water Plan 54 which suggested that the State should gain sufficient control of the storage in federal reservoirs to enable it to meet its needs. The Water Plan summary contained the following policy recommendations:

1. The state will negotiate agreements with the federal government to develop drought contingency plans and operations for emergency water supplies in applicable reservoirs.

2. The state will develop an assurance program which utilizes reservoir storage to satisfy downstream municipal and industrial water rights.

3. The state will utilize the assurance program and drought contingency plans on a case-by-case basis for reservoirs in the state. 55

With these three sentences as conceptual guidelines, the Water Office staff in the fall of 1984 began writing proposed legislation for the WAD program. Targets of the WAD program would be holders of M & I water rights below federal reservoirs; the objective was to use assurance water to fulfill M & I water rights in times of drought. Several fundamental issues had to be resolved: whether membership in a district would be required; whether alluvial-groundwater pumpers should be included as possible beneficiaries of water assurance releases; how the State or the WAD should obtain and designate assurance water storage; and how the assurance water would be provided.

53. Id. art. 5.
54. Kansas Water Plan, supra note 41.
55. Id. at 7.
1. Organizing Water Users

The Water Office staff considered several methods of organizing
downstream water right holders, based on other types of existing
Kansas water district organizations. Among the wide range of
membership possibilities initially considered were the following: (1)
having individual M & I users contract for assurance water, a
method similar to the way they were then contracting for water
from the Water Office under the water-marketing program; (2)
having voluntary membership, but having the group contract for
the assurance water, a method similar to the way Kansas wholesale
public water supply districts are established; (3) having all down-
stream M & I water users be members, with only those users who
want to subscribe to water purchases actually paying; (4) having
a district established by majority vote and then, include all water
users in the district, requiring each to pay for assurance water, as
is currently done in watershed and groundwater management
districts; and (5) forcing all water users to be in a district and
making them pay for the assurance water. Additionally, the Water
Plan contained the following guide: "[I]n order for such a program
to be implemented at a relatively reasonable cost to individual
users, mandatory participation by all eligible right holders would
be necessary."

The earliest draft of proposed legislation prepared internally in
the Water Office favored a combination approach, involving man-
datory participation by all users who would benefit from releases,
with two potential types of contracts: either individual assurance
water contracts for users who would benefit by releases, or con-
tracts between the State and groups of those benefitting partici-
pants. Ultimately, the legislation sent to and approved by the
legislature was somewhat different, as shown below.

56. Memorandum to Tom Stiles from John C. Peck, State Water Plan—Intrastate
Management—Large Reservoirs—Assurance Program—Organization of Downstream Users
into Benefit Districts, (Sept. 11, 1984) (on file in the Kansas Water Office). The Water
Office employed me during the summer and fall of 1984 to conduct legal analyses of the
various sections of the proposed Water Plan.
to -1237 (1986).
60. Kansas Water Plan, supra note 41, at 4.
61. See Memorandum No. 4, Supp. No. 2, from John C. Peck to Joseph F. Harkins,
State Water Plan—Large Reservoir Management 8 (Dec. 11, 1984) [hereinafter Memoran-
dum No. 4].
2. Including Alluvial Users

From the outset, the Water Office favored including as assurance program participants the users from the alluvial aquifers below reservoirs. Thus, the early proposals\textsuperscript{62} recommended their inclusion in the program as did the ultimate proposed legislation.\textsuperscript{63}

3. Obtaining Assurance Water Storage

The early draft of the legislation in the Water Office proposed a new type of storage right, dubbed a "water assurance right" to contrast it with the already existing "water reservation right" used by the State to store water-marketing water.\textsuperscript{64} The procedure for obtaining that type of right would have been similar to that used for the reservation rights. However, the Water Office and Water Authority changed this earlier version to drop the concept of an entirely separate right in favor of merging the water assurance program into the marketing program insofar as obtaining the right for storage is concerned. Thus, the bill sent to and ultimately enacted by the legislature tacitly recognized that the Water Office already had the power to obtain storage rights and could store and deliver assurance water under the reservation rights it could already obtain. The definition of "assurance storage" was "that part of the conservation storage water supply capacity of any reservoir devoted to the storage water for the water assurance program."\textsuperscript{65}

4. Providing the Assurance Water

Neither the Water Plan nor the early draft of the WAD legislation suggested specifically how assurance releases would be made. Neither proposal required that the assurance program be administered like the marketing program, where contract right holders call for releases, which are made only on specific request. Nor did either proposal call for a target-flow concept, whereby the Corps would make necessary releases at the request of the State in order to maintain target flows at various points on the river, those releases to be sufficiently high to ensure that M & I users obtain the quantities of their water rights in times of drought. The early internal draft proposed the method used in the marketing program,

\textsuperscript{62} See \textit{id.} at 5.


\textsuperscript{64} Memorandum No. 4, \textit{supra} note 61, at 5-9.

stating that "[t]he director of the Kansas Water Office shall request releases of assurance water by the federal government." The WAD Act does not specify one release method or the other. As shown below, however, the Water Office to date has preferred the target-flow concept.

B. Passage of the Act

House Bill 2705 was introduced early in the 1986 session. After minor amendments were made by the Energy and Natural Resources Committees of both houses, the legislature enacted the Bill on April 8, 1986, the Governor signed it on April 24, 1986, and it became effective on July 1, 1986.

C. Provisions of the Act

1. Establishing a WAD

The "water assurance program act" enables the voluntary establishment of WADs in basins below federal reservoirs—voluntary in the sense that a district will be formed only if those water users who control the majority of the M & I water rights want a WAD. The process is initiated by filing with the Secretary of State a petition that proposes the establishment of a WAD, and that gives the purposes, names the steering committee, and prays for the organization of the WAD. The petition must be signed by "eligible water right holders"—defined as "any entity holding a water right . . . to appropriate water from a stream or water from the alluvium of the stream downstream from an assurance reservoir for municipal or industrial purposes"—that hold more than twenty percent of the combined quantities of all eligible water rights within the proposed district. Once the petition is approved by the Secretary of State and the Chief Engineer, the Secretary of State notifies the Steering Committee.

The Committee then gives notice to all eligible water right holders and conducts a meeting for the purpose of determining whether the WAD should be established. To establish a WAD, the eligible

66. Memorandum No. 4, supra note 61, at 8.
69. Id. § 82a-1335.
70. Id. § 82a-1331(e), -1335(a), (e).
71. Id. § 82a-1335(a).
72. Id. § 82a-1336.
73. Id. § 82a-1338.
water right holders representing over fifty percent of the combined quantities of eligible water rights in the proposed WAD must vote in favor.\textsuperscript{74} If the vote is positive, the Secretary of State issues a certificate of incorporation; and upon recording the certificate with the Register of Deeds, the WAD is authorized to function.\textsuperscript{75}

2. Becoming a Member

Membership in a WAD is mandatory for eligible water right holders who would benefit by releases of assurance water.\textsuperscript{76} The Chief Engineer determines which holders would benefit by considering the quantity and rate of diversion; the frequency and distribution of use; the consumptive use, location, and source of the water right; and other factors.\textsuperscript{77} Because eligible water right holders include alluvial water users, these users may also have to become members, but only if the Chief Engineer determines that the holder receives a significant benefit from the supplementation of the stream by assurance water releases.\textsuperscript{78}

3. Financing the WAD

Under legislation enacted simultaneously with the WAD Act, a WAD can take advantage of revenue bonds issued by the Kansas Water Office.\textsuperscript{79} The Act empowers the WAD to assess charges against its members for all costs of operating and maintaining the WAD; reimbursement to the State for the administration and enforcement costs of the WAD program and for the purchase of additional storage; and coverage for the principal and interest on revenue bonds issued by the Water Office.\textsuperscript{80} The WAD may vary charges among its members according to a pro rata basis, based on quantities of water authorized.\textsuperscript{81}

4. WAD Duties and Powers

The powers given a WAD in the Act include the usual litany of corporate powers: adopt a seal; sue and be sued; purchase land

\textsuperscript{74} Id.
\textsuperscript{75} Id.
\textsuperscript{76} Id. § 82a-1334.
\textsuperscript{77} Id. § 82a-1333(a)-(c).
\textsuperscript{78} Id. § 82a-1331(f).
\textsuperscript{81} Id. See also infra part VI.D. (discussing the method of allocation actually used by the Kansas River WAD members).
and personal property; enter into contracts; employ services, impose charges, and select a home office; and take other action necessary to achieve the purposes of the program. The Director of the Water Office, however, and not the WAD is empowered to request releases of assurance water under agreements with the federal government.


The Act prohibits a member from diverting water from assurance releases if the member has not adopted a conservation plan. Moreover, an entity that acquires a water right after a WAD is in place may be forced to become a member if the Chief Engineer determines that sufficient additional water may be yielded from assurance reservoirs to benefit that entity. Other provisions state that the rights of members to receive assurance water may not be transferred separately from their water rights, and that WAD members are not precluded from purchasing emergency water from the federal government. Finally, provision is made for WAD members who are currently under contract for the purchase of water under the marketing program to renegotiate their marketing contracts.

V. Experience Under the Act

A. Introduction

Two WADs presently exist in Kansas. One WAD has been formed for the Kansas River and is actively pursuing the goals of the Act; and a WAD for the Marais des Cygnes River has been formed, but is in the initial stages of its activities. Additionally, a WAD for the Verdigris River was considered but not formed after the entities involved decided that a WAD would be unnecessary. Other possible locations for WAD formation include the Neosho and Cottonwood Rivers below the Marion, Council Grove, and John Redmond Reservoirs.

83. Id. § 82a-1345(b).
84. Id. § 82a-1345(c), -1348.
85. Id. § 82a-1345(d).
86. Id. § 82a-1345(h).
87. Id. § 82a-1346.
88. Id. § 82a-1347.
B. *The Verdigris River*

1. Geographical Setting

The Verdigris River Basin lies in southeast Kansas. The river starts in Greenwood County and flows generally south-southeast through Greenwood, Woodson, and Wilson Counties to the city of Neodesha, and then south through Montgomery County through Independence and Coffeyville to Oklahoma. Major tributaries entering from the west are Fall River at Neodesha and Elk River just north of Independence. Big Hill Creek starts in Neosho County and flows south and west through Labette and Montgomery Counties before it enters the Verdigris at Coffeyville. Four Corps of Engineer reservoirs are in the Basin: Toronto Reservoir is on the Verdigris River in Greenwood and Woodson Counties, approximately twenty-five miles north-northwest of Neodesha; Fall River Reservoir lies on the Fall River approximately twenty-five miles northwest of Neodesha; Elk City Reservoir lies on Elk River approximately seven miles west-northwest of Independence; and Pearson-Skubitz Big Hill Lake is on Big Hill Creek in Labette County. Because the Pearson-Skubitz Big Hill Lake was never considered for inclusion in the WAD, the focus here will be on the western part of the Verdigris River Basin.

Numerous water rights dot the basin, including vested and appropriation rights for domestic, municipal, industrial, and irrigation uses. Most are from the rivers and streams, but a few are from groundwater.

2. The Reservoirs

The State has contracted with the Corps to purchase 24,300 acre-feet of water supply storage space in Elk City Reservoir, which was constructed in the 1960s, and has the right to purchase an additional 18,000 acre-feet. Coffeyville is under contract with the State of Kansas to purchase water for municipal use from Elk City Reservoir in the amount of five mgd.

Toronto and Fall River Reservoirs were constructed prior to enactment of the 1958 Water Supply Act, so no provision was made for the State to purchase supply storage space. The original Congressionally authorized purposes of the reservoirs, aside from flood control, were recreation, wildlife protection, and low-stream

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flows increase. Problems arose in the late 1970s and early 1980s when the Corps released water for stream-flow enhancement, but these releases were not protected by the Chief Engineer against diversions by irrigators and M & I users. The Corps and the State finally agreed that the low-flow enhancement releases were meant, in the words of a Corps memorandum, "thereby [to] provid[e] needed water for municipal and industrial use and to assist in the abatement of stream pollution." Thus, cities downstream from these two reservoirs—Fredonia and Neodesha on the Fall River; Altoona, Independence, and Coffeyville on the Verdigris River—were deemed to have M & I storage in these reservoirs without having had the State or themselves contract for the space or pay for the water because "[r]eimbursement for the conservation storage is not appropriate." When establishment of a WAD was considered in 1988 and 1989, no plan or agreement existed to coordinate releases or to protect releases and diversions for various uses, but M & I users were in fact using the releases to enhance their water rights in times of low flow.

3. WAD Formation Discussions

The 1985 Water Plan for the Verdigris Basin recommended that "an assurance program [be developed] to supplement water rights." In 1987, Water Office personnel suggested to various M & I users in the Verdigris Basin that a WAD might be appropriate and might present a method of enhancing low flows during drought periods. The Water Office's main purpose in creating a WAD would have been to develop a coordinated plan for releases from the reservoirs in the proposed WAD area, which would include the Fall River, Toronto, and Elk City Reservoirs, but would not include the Pearson-Skubitz Big Hill Reservoir. The Verdigris River WAD would not have to purchase storage space from Fall River or Toronto Reservoirs for the reasons stated above, but could acquire space available in Elk City Reservoir. The Water Office argued that having the WAD would insure that the M & I water right holders would have a voice in any reservoir management plans established.

94. Memorandum from John F. Wall, supra note 28, para. 2.
95. See Peck, supra note 22, at 814-26.
96. Memorandum from John F. Wall, supra note 28, para. 2.
97. Id. para. 3. The Memorandum notes two exceptions in these reservoirs: 400 acre-feet of storage was reallocated at Toronto after the project was built, and Elk City Reservoir was modified before construction, but after the 1958 Act. Id.
The Chief Engineer concluded that all surface M & I users below the three reservoirs would benefit from being in the WAD and, therefore, would have to be included. The Water Office ran computerized drought exercises in the fall of 1987, simulating conditions in some of Kansas's worst drought years. It concluded that some water right holders, even vested right holders, would suffer up to eight months of shortage in some five-year periods of serious drought. These drought exercises gave broad indications of what a drought might mean to the Basin. However, because 1987 levels of demand were relatively low, holders of vested rights and appropriation rights did not have to seek administration of water rights in the exercises; and sufficient water was available.

Ultimately, questions about costs of having a WAD and about administration of releases from the reservoirs were determinative in the decision not to form a WAD in the Verdigris Basin.

a. Costs

Anticipated costs of establishing and running a WAD in the Verdigris Basin were expected to be much lower than the costs in the proposed Kansas River WAD. If the WAD were to purchase storage space, it would have to do so only in Elk City Reservoir because the space in Toronto and Fall Rivers Reservoirs had been paid for by the federal government, as stated above. Were the WAD to have purchased all the space available in Elk City Reservoir, the cost would have exceeded $3.8 million, but not all of that space was available because Coffeyville was under contract for some of the space. Any space purchased by the WAD could have been financed by bonds under legislation enacted in 1986. Besides reservoir storage space, other costs would have included internal management costs of the WAD and the costs of having the State administer and enforce water rights and water assurance releases during droughts. Despite the relatively low costs for this proposed WAD, the water users generally felt that any cost was too much because the only perceived benefit would be more participation in developing reservoir operations plans with the Corps.

99. See discussion infra part VI.D.
100. KAN. STAT. ANN. §§ 82a-1360 to -1368 (1986); see supra text accompanying note 79.
101. According to Tom Stiles, Water Resource Manager, Kansas Water Office, the water users in the basin did not recognize that the lower basin users (Independence, Coffeyville, and Farmland Industries), which have the most demand, could drain the free water in Fall River and Toronto Reservoirs. The drought exercise showed that they could get by without Elk City Reservoir water at their then current level of demand, but not at an increased future demand. Interview with Tom Stiles, Water Resource Manager, at the Kansas Water Office (Jan. 22, 1992).
b. Administration of Releases

The Water Office's plan for water releases differed from that envisioned by some of the M & I users in the Basin. The Water Office proposed a target-flow concept for the WAD program to ensure adequate water for M & I water right holders below reservoirs during drought. In contrast, some M & I users expected that the WAD, or individual members of a WAD, would have rights to make calls on the State for releases to help them through drought periods.

Under the Water Office's target-flow concept, releases would be made in times of drought to maintain agreed-upon target flows at certain points on the river. WAD members would have simply diverted water when needed as the water flowed past. The reasons for this target-flow proposal were fourfold: Ease of administration; protection of the stream environment; efficiency—dewatering creates large transit losses; and maintenance of stream water quality. While admitting that the WAD statute does not require the target-flow concept, the Director of the Kansas Water Office felt that the State's experience with the marketing program indicated that calls for releases by cities during drought had resulted in large transit losses. The members of the WAD would have allocated costs under the target-flow concept based on a contractual arrangement among themselves.

Some M & I users, however, anticipated that the assurance releases would work much like the State's water-marketing program now works. When a downstream water right holder needed water, it would first call for an administration of water rights. If a senior right holder made the call and if there were stream water available, the administration would provide the water. A junior water right holder might not have stream water available, and so would have to call for assurance water releases from storage. However, that holder would have to pay for the water it sought and received as a member of the WAD. In short, the M & I users expected continued respect for water rights priorities until streamflow could not satisfy all rights, and then releases from WAD storage when needed with internal agreements regarding who would have to pay and how much.

4. The Decision Not to Form

Water Office personnel held meetings with local water right holders and officials about establishing the Verdigris River WAD, and lawyers representing various parties held discussions. In the end, M & I users in the Verdigris Basin chose not to establish this proposed WAD. No one in the Basin seemed to want the WAD.
Some opposition was based on the problems M & I users had with accepting any charge for water that they felt was theirs to use without payment under federal legislation. Others differed with the Water Office's proposed method of administering releases. Additionally, at least one city threatened to sue the State and the WAD if formed, and Coffeyville did not want a WAD if its marketing contract was still in effect.102

C. The Kansas River WAD

1. Geographical Setting

Roughly the northern half of Kansas lies in the Kansas River Basin. The Kansas River itself begins in Junction City at the confluence of the Republican and Smoky Hill Rivers and flows generally easterly to the state line through a much more heavily populated area than that of the Verdigris River Basin. First flowing through Geary and Riley Counties, the Kansas River then forms part of the county boundaries of Pottawatomie, Wabaunsee, Shawnee, Jefferson, Douglas, Leavenworth, Johnson, and Wyandotte Counties. The river flows through Junction City, Manhattan, Topeka, Lawrence, and Kansas City, where it meets the Missouri River at the state boundary with Missouri.

The Corps has constructed five reservoirs in this basin.103 Located farthest west is Kanopolis Lake on the Smoky Hill River, which was constructed in the 1940s as a flood control project with some storage for anticipated irrigation use under an agreement with the Bureau of Reclamation. Ten miles northwest of Junction City is Milford Lake, lying in Geary, Clay, and Dickinson Counties. Tuttle Creek Reservoir lies on the Big Blue River with its dam six miles north of Manhattan. The reservoir is over twenty miles long and reaches into Riley, Pottawatomie, and Marshall Counties. Perry Reservoir, which is on the Delaware River in Jefferson County, lies north of the Kansas River roughly half way between Topeka and Lawrence. Clinton Reservoir sits very near the southwest city limit of Lawrence and stretches westerly over Douglas County and into Shawnee County. Neither Kanopolis Lake nor Clinton Reservoir is part of the WAD program; therefore, they will not be considered further.104

102. Coffeyville could have renegotiated its marketing contract under the WAD Act. See supra text accompanying note 88.
Although numerous irrigators have water rights in the Kansas River and the alluvium, the major water rights in the system, vested and appropriation, belong to the cities of Manhattan, Topeka, Lawrence, and Olathe; to public water utilities like the Board of Public Utilities-Wyandotte County, Johnson County Water District No. 1, and Public Wholesale Water Supply District No. 1; to industries such as Kansas Power and Light (Jeffrie Energy Center, Topeka, and Lawrence), Hercules Aerospace Division (a defense department ammunition plant), Goodyear, and Cooperative Farm Chemicals; and to hydropower production (Bowersock Mills & Power Company at Lawrence).

2. The Reservoirs

According to a table once found in the Kansas Statutes, the capacities of the total storage, water supply storage, and flood control storage in the three reservoirs prior to formation of the Kansas River WAD were as follows:

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Total Water Supply Storage Including Sediment</th>
<th>Total Flood Control Storage</th>
<th>Total Storage Including Sediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milford</td>
<td>460,000 af</td>
<td>700,000 af</td>
<td>1,160,000 af</td>
</tr>
<tr>
<td>Tuttle Creek</td>
<td>413,000 af</td>
<td>1,933,000 af</td>
<td>2,346,000 af</td>
</tr>
<tr>
<td>Perry</td>
<td>290,000 af</td>
<td>480,000 af</td>
<td>770,000 af</td>
</tr>
</tbody>
</table>

3. WAD Formation

The seeds for the formation of the Kansas River WAD had been sown even prior to the WAD legislation. In February 1982

(on file with the Kansas Water Office) [hereinafter Operations Agreement], provides in Section 1.IV.D. that "[n]o use of [Clinton Reservoir] storage will be made for the Assurance Program." However, since Section 1.IV.C. provides that "[t]hese [water quality] releases from Clinton Reservoir assist in the maintenance of the target flows on the Kansas River at the DeSoto gaging station," M & I users downstream from Clinton to the Missouri border arguably would benefit by these releases and in effect use them to satisfy their water right quantities. According to Tom Stiles of the Kansas Water Office, these amounts are too small to detect. Interview with Tom Stiles, supra note 101.

105. One study showed 1956 irrigation withdrawals of 10,600 acre-feet (approximately 8.2% of the total) and 1980 withdrawals of 38,000 acre-feet (approximately 22.5% of the total). BLACK & VEAUGH, REPORT ON KANSAS RIVER WATER SUPPLY FOR KANSAS RIVER ALLIANCE, PROJEC T NO. 11016, at III-18 (Jan. 1984).

106. These figures were taken from a table that appeared in KAN. STAT. ANN. § 82a-938 (1984). This section, which contained information about all major reservoirs in Kansas, was repealed in 1986. See 1986 Kan. Sess. Laws 395, § 9. See infra table in part VI.C.4.c. for somewhat different, but currently accepted, figures.
Wichita, which lies in the Arkansas River Basin, began studying the possibility of purchasing water from Milford Reservoir in the Kansas River Basin. The Kansas River Alliance formed in response included cities, industries, and water districts as members,\(^{107}\) many of which formed the nucleus of the eventual WAD membership.

In May 1987 a steering committee filed a petition with the Secretary of State to form The Kansas River Water Assurance District No. 1.\(^{108}\) Attached to the petition was a certification from the Chief Engineer of the "eligible water right holders"\(^{109}\) in the proposed WAD. This list showed a wide variety of holders, from small municipal right holders such as Bonner Springs (3225 acre-feet/year of groundwater) and Lawrence (10,120 acre-feet/year of groundwater and surface water) to large municipal right holders such as the Board of Public Utilities (153,500 acre-feet/year of surface water) and large industrial users such as Kansas Power and Light (133,977.97 acre-feet/year of groundwater and surface water).\(^{110}\) However, the holder of the largest water right, Bowersock Mills and Power Company in Lawrence, with a vested right to 1,000,000 acre-feet of water annually at a rate of 2000 cubic feet per second (cfs) for hydropower production, is not eligible for inclusion for membership, since a right for water power is not a right for municipal or industrial use under Kansas law.\(^{111}\) The Secretary of State officially certified the WAD as The Kansas River Water Assurance District No. 1 on September 9, 1987.\(^{112}\)

\(^{107}\) Members as of January 28, 1986, were the cities of Topeka, Manhattan, Bonner Springs, Rossville, Salina, Olathe, Wamego, Ogden, and Lawrence; Northern Hills Rural Water District No. 4, Water District No. 1 of Johnson County; Board of Public Utilities, Kansas City, Kansas; Bowersock Mills & Power Co.; and Kansas Power and Light Co. Hearings on House Bill 2705, Before the House Committee on Energy and Natural Resources (Jan. 28, 1986) (testimony of the Kansas River Alliance).

\(^{108}\) Petition, Before the Secretary of State of the State of Kansas, submitted May 15, 1987 (on file with the author).


\(^{110}\) Id.


\(^{112}\) Certification, The Kansas River Water Assurance District No. 1, by Secretary of State Bill Graves (Sept. 9, 1987).
4. Activities of the WAD

Since its formation, the Kansas River WAD has successfully negotiated a contract with the Kansas Water Office regarding reservation storage in the three reservoirs\textsuperscript{113} and an Operations Agreement for coordinated releases from the reservoirs.\textsuperscript{114} It has sold $1.44 million in bonds to finance its storage purchases from the State.\textsuperscript{115}

a. The WAD Contract

This contract, dated December 22, 1989, will run for the “useful lives of the reservoirs in the basin,”\textsuperscript{116} defined as Milford, Perry, and Tuttle Creek Reservoirs.\textsuperscript{117} The State obligates itself as follows:

1. To exercise its first purchase option and obtain control of conservation water supply space in the Milford Reservoir, 55,000 acre-feet; Tuttle Creek Reservoir, 27,500 acre-feet; and Perry Reservoir, 25,000 acre-feet, which combined space is designated for the sole use and benefit of the WAD;

2. To set aside storage space of 60,400 acre-feet in Milford to be added by the year 2010, 15,000 acre-feet in Perry to be added by the year 2010, and 13,850 acre-feet in Tuttle Creek to be added by 1995; and

3. To allocate a proportionate share of inflow into each reservoir to the storage space designated for the WAD, and to allocate all inflows necessary to fill the storage capacity when the storage space for the WAD is less than 25 percent in Milford, 10 percent in Tuttle Creek, and 25 percent in Perry.\textsuperscript{118}

The WAD obligates itself to pay for the storage.\textsuperscript{119} The contract provides for a complicated determination of cost according to the statutory requirements described above as well as a schedule for billing.\textsuperscript{120} The contract apparently gives the WAD an option to purchase set-aside storage in varying amounts in the three reser-

\textsuperscript{113} Contract Between the State of Kansas and Kansas River Water Assurance District No. 1, for Municipal and Industrial Water Supply Assurance (Dec. 22, 1989) (on file with the Kansas Water Office) [hereinafter WAD Contract].
\textsuperscript{114} Operations Agreement, supra note 104.
\textsuperscript{115} Martin Hawver, Water Bonds Should Keep Taps Flowing, Topeka Cap.-J., June 19, 1991, at D.
\textsuperscript{116} WAD Contract, supra note 113, art. 2.
\textsuperscript{117} Id. art. 1(e).
\textsuperscript{118} Id. art. 4.
\textsuperscript{119} Id. art. 5.
voirs.\textsuperscript{121} Exhibits to the contract provide for specific payments with respect to various aspects of the contract.\textsuperscript{122} The contract incorporates the Operations Agreement, which was to be executed in the future. It absolves the State of any potential liability for claims "arising out of the control, carriage, handling, use, disposal, or distribution of water furnished" to the WAD.\textsuperscript{123} Dispute resolutions are to be submitted to trial before a special master due to a

\textsuperscript{121} The WAD Contract does not expressly grant the WAD an option to purchase set-aside storage, but does so by implication. Article 4 of the WAD Contract states the following:

In addition, the State will set-aside storage space of 60,400 acre-feet in Milford to be added by the year 2010; 15,000 acre-feet in Perry to be added by the year 2010; and 13,850 acre-feet in Tuttle Creek to be added by 1995. If the District does not exercise its option to add all or some portion of the set-aside storage space by these dates, the State retains its right to utilize the storage for other beneficial purposes.

WAD Contract, supra note 113, art. 4.

Article 5 states that:

The Director shall determine the charges to be paid by the district . . . including . . .

. . .

(4) An amount equal to interest at the rate of 2.632 percent on capital costs for 60,400 acre-feet of storage set-aside in Milford, 3.046 percent on capital costs [for] 15,000 acre-feet of storage set-aside in Perry, and 2.553 percent on capital costs for 13,850 acre-feet of storage set-aside in Tuttle Creek reservoirs.

\textit{Id.} art 5. See also \textit{id.} app. at Exhibit F.

The Operations Agreement, supra note 104, states this option more clearly in Section 1.I.C.: "The District shall have this set-aside storage available to purchase until the end of 1995 in Tuttle Creek Reservoir and the end of 2010 in Milford and Perry reservoirs."

\textit{Id.}

\textsuperscript{122} Exhibit A provides that the WAD pay $1,904,525 (from bond proceeds or lump sum up-front payment) in full payment for the Tuttle Creek storage prior to initiation and implementation of operations under the operations agreement.

Exhibit B provides for fifty annual payments of $98,554.78 for 55,000 acre-feet of storage in Milford and for fifty annual payments of $22,515.47 for 25,000 acre-feet of storage in Perry, both storages to be called into use on October 1, 1991.

Exhibit C provides for ten annual payments of $175,116.46 to repay the state for principal and interest already paid by the state for Milford and Perry.

Exhibit D provides for operation and maintenance charges due on September 15, 1991, in the amount of $90,435.71, and on September 15, 1992, in the amount of $77,538.16.

Exhibit E provided for annual administration and enforcement costs, but gives no specific amounts.

Exhibit F provides for payments for annual interest due for capital costs on set-aside storage. It provides for annual payments through 2009 of $80,790.74 for Milford; annual payments through 2009 of $33,580.51 for Perry; and annual payments through 1995 of $24,669.24 for Tuttle Creek.

See WAD Contract, supra note 113, app. at Exhibits A - F.

\textsuperscript{123} \textit{id.} art. 8.
recognition that "this contract and operations agreement . . . are complex documents which are not easily interpreted."124

b. The Operations Agreement

The State and the Kansas River WAD have signed an Operations Agreement dated January 31, 1991. The following table from Section 1 of the Agreement shows the existing storage capacities in acre-feet:

<table>
<thead>
<tr>
<th>Storage (1000 af)</th>
<th>Total</th>
<th>Assurance</th>
<th>Set-Aside</th>
<th>Uncommitted</th>
<th>Marketing</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milford</td>
<td>389 (300)</td>
<td>70.4 (55)</td>
<td>77.3 (60.4)</td>
<td>176.8 (138.1)</td>
<td>59.5 (46.5)</td>
<td>0</td>
</tr>
<tr>
<td>Tuttle Creek</td>
<td>335 (122)</td>
<td>75.5 (27.5)</td>
<td>38.0 (13.85)</td>
<td>0</td>
<td>0</td>
<td>221.5 (80.65)</td>
</tr>
<tr>
<td>Perry</td>
<td>210 (150)</td>
<td>35.0 (25)</td>
<td>21.0 (15)</td>
<td>154.0 (110)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(Storage in parenthesis is remaining storage after sediment allocations fill.)125

Section 1 of the Agreement also provides that set-aside storage is reserved for WAD use—until the end of 1995 for Tuttle Creek and until the end of 2010 for Milford and Perry.126 The State is prohibited from using that storage under the marketing program without written approval of the WAD.127 The uncommitted storage is still under Corps control for federal purposes,128 and set-aside storage is still considered uncommitted by the Corps.

Section 2 of the Operations Agreement, which is a three-party agreement129 between the Kansas Water Office, the Division of Water Resources of the State Board of Agriculture, and the Kansas River Water Assurance District No. 1, deals with operational policies and responsibilities. WAD members are limited to diversions as prescribed in their water rights.130 Target flows are established at two points on the Kansas River, Topeka and DeSoto, and vary seasonally (winter and summer) as well as by the pool elevation in Tuttle Creek Reservoir (the higher the elevation, the higher the target flows), which is to be monitored every two weeks.

124. Id. art. 9.
125. Operations Agreement, supra note 104, at 1. The Agreement gives the total storage in Milford Reservoir as 384,000 acre-feet. The correct figure is 389,000 acre-feet. Interview with Tom Stiles, supra note 101.
126. Operations Agreement, supra note 104, § 1.I.C.
127. Id. § 1.I.B.
128. Id. § 1.II.B.
129. Section 1 was an agreement between the Kansas Water Office and the Kansas River Water Assurance District No. 1 and was signed by only those two entities. Id. § 1.
130. Id. § 2.II.D.
in the winter and every week in the summer.\textsuperscript{131} Natural flow thresholds are defined in order to determine when WAD demands may be satisfied by natural flows rather than from assurance storage releases.\textsuperscript{132} Assurance releases are allocated among the three reservoirs on the basis of relative inflows during historic drought.\textsuperscript{133} Water supply demands above the confluence of the Delaware River are to be satisfied twenty-five percent from Milford and seventy-five percent from Tuttle Creek; below the confluence of the Delaware River by twenty-five percent from Milford, sixty percent from Tuttle Creek, and fifteen percent from Perry.\textsuperscript{134} Releases may be made for navigation according to set criteria.\textsuperscript{135} With some limitations, refill policy is determined by proportionate amounts of volume.\textsuperscript{136}

An interesting provision of Section 2 of the Operations Agreement is Section II.D. which states that "Actual diversion of water by each member of the District shall be in accordance with the terms, limitations and conditions of that member's water rights except as noted in Appendix B." Appendix B refers to a "limiting endorsement" of an order of the Chief Engineer regarding water appropriation right number 34,442, dated April 30, 1982, and held by Kansas Power and Light Company (KP & L). In 1982, KP & L was seeking a large water right from the Kansas River for its Jeffrey Energy Center in Pottawatomie County. The Division of Water Resources held hearings on the permit application. Parties who testified at the hearing or who provided written statements included KP & L, Bowersock, the Kansas Fish and Game Commission, the Kansas Canoe Association, the Cities of Topeka and Lawrence, and Johnson County Water District No. 1. The order granted KP & L 26,580 acre-feet of water annually, but conditioned withdrawals as follows: When the natural flow of the Kansas River is below 900 cfs, no withdrawals are permitted unless the provision is waived by the Chief Engineer "for good cause and such waiver is shown to the satisfaction of the Chief Engineer to be in the public interest,"\textsuperscript{137} up to 15,000 acre-feet could be withdrawn when

\begin{itemize}
\item \textsuperscript{131} \textit{Id.} § 2.III.
\item \textsuperscript{132} \textit{Id.} § 2.IV.F.
\item \textsuperscript{133} \textit{Id.} § 2.IV.H.1.
\item \textsuperscript{134} \textit{Id.} § 2.IV.H.2. & -3.
\item \textsuperscript{135} \textit{Id.} § 2.IV.K.
\item \textsuperscript{136} \textit{Id.} § 2.V.E.
\item \textsuperscript{137} Order by the Chief Engineer in the Matter of Application, File No. 34,442, of Kansas Power and Light Company for Permit to Appropriate Water for Beneficial Use 17, at para. 4(a) (Apr. 30, 1982).
\end{itemize}
the flow is between 900 cfs and 5000 cfs;\textsuperscript{138} and the balance could be withdrawn when the flow exceeds 5000 cfs.\textsuperscript{139}

These permit conditions were presumably made to maintain minimum flows for fish protection and for water quality and to protect senior rights such as those held by Bowersock and irrigators. The Operations Agreement purports to waive this condition.\textsuperscript{140}

The Operations Agreement was signed by the WAD, which includes KP & L as a member, the Kansas Water Office, and the Division of Water Resources. It was not signed by senior non-M & I water users such as irrigators and Bowersock. They might contend that, since they are not parties to the Operations Agreement, they are not bound by Appendix B and should be able to seek enforcement of the condition and force KP & L to cease diverting water under this permit when streamflow conditions meet the level stated in the condition.

VI. SOME LEGAL ISSUES

Due to the complexity of the WAD concept as well as the hydrology of a large river basin with storage water and water rights from the river and the alluvium, a number of legal issues arise. The WAD contract itself states that "[t]he parties recognize and agree that this contract and operations agreement . . . are complex documents which are not easily interpreted" and that therefore, any legal action arising should be submitted to trial before a special master.\textsuperscript{141} The Operations Agreement lists water management issues that "will continue to be deliberated among the parties."\textsuperscript{142} The usual litany of legal issues that arise in special district legislation could arise here. For example, a member who

\begin{itemize}
    \item Id. at 18, para. 4(b).
    \item Id. para. 4(c).
    \item Operations Agreement, supra note 104, app. B.
    \item WAD Contract, supra note 113, art. 9.
    \item Operations Agreement, supra note 104, § 2.VI.A. Section 2.VI.B. states:
        Current issues of water management include:
        1. Banking and use of water rights among District members.
        2. The support of navigation as demands grow and storage capacity declines.
        3. Alternative target flows on the Kansas River as the water quality storage in Tuttle Creek declines.
        4. Seasonal variation in operations.
        5. Alternative release distribution rules.
        6. Further quantification on the benefit of operations to groundwater members.
        7. Non-point water quality impacts on operations.
        8. Trends of water demand growth in the district.
        9. Depletion trends along the Republican River above Milford Reservoir.
    \end{itemize}

\textit{Id.}
is certified as being one who "may benefit," or especially a member who draws water only from the alluvium and who has been named as receiving "a significant benefit" could seek to be removed from membership. A legal issue has arisen regarding one WAD member who uses water for federal purposes; the issue concerns the member’s payment of its share of costs. Legal issues also might arise out of factual matters such as the accuracy of measurements of inflows that some downstream, non-WAD-member water users might seek to by-pass through the reservoirs. Several other issues are discussed below.

A. Use of Target Flows Instead of Specific Releases

The Operations Agreement of the Kansas River WAD provides for releases of assurance water to provide target flows at two points on the Kansas River. Although the WAD Act neither provides for target flows nor proscribes this method as the mechanism of delivering water in times of drought, the MOU did suggest a target-flow concept. Moreover, the target-flow method has an incidental benefit not shared by a call-for-release method; it helps to maintain minimum desirable streamflows. The Kansas Water Appropriation Act provides for minimum streamflows in streams designated by the legislature. To date, the legislature has designated twenty-three such streams. The notable exception is the Kansas River. The Operations Agreement provides that "[t]arget flows will be designated ... on the Kansas River at Topeka and at DeSoto to support the instream uses listed in K.S.A. 82a-928(i)

143. See supra text accompanying notes 76-78.
144. Sunflower Army Ammunition Plant, near DeSoto, Kansas, is part of the U.S. Department of Defense. It has water rights from both the Kansas River and the alluvium. Sunflower is operated by Hercules Aerospace Division, an M & I user that is a contractor with the U.S. Department of Defense. At issue is the claim that state water law requirements do not apply, that military funds cannot be used to fund a state project, and that even if state law applies, this user should not have to pay because it is a part of the same federal department as the Corps of Engineers, the agency coordinating releases from the three reservoirs. Additionally, the Under Secretary of the Army for Military Affairs has told the Under Secretary of the Army for Civilian Works that funds appropriated for military purposes cannot be used in support of civilian works projects. Payments made by Sunflower or its contractor to reimburse the State of Kansas and hence the Corps for the construction of the storage capacity dedicated to assurance district would constitute just such an unauthorized support. Telephone interview with Roger K. Weatherby, General Attorney, Director Real Estate Department, Kansas Power and Light (Nov. 11, 1991); Letter from Roger K. Weatherby to John C. Peck (Dec. 3, 1991) (on file with author) [hereinafter Weatherby letter].
145. See MOU, supra note 35, § 2.d.; see supra text at note 45.
and will be managed by the state in lieu of minimum desirable streamflows as described in K.S.A. 82a-703." The Agreement provides further that these target flows are maintained by releases from the Corps' water quality storage. Target flows at any given time may be made up of either by-passed natural flows or water quality releases, or a combination of both. Assurance water is on top of target flows. Releases from the assurance pool might have to be used to help maintain target flows in the remote chance of a very serious drought where the water quality storage has been depleted. Thus, the Kansas River WAD in a remote situation might be helping to finance, in part, minimum streamflows that normally would be designated by the State as waters that are unavailable for appropriation.

From a purely administrative standpoint, the target-flow procedure has merit over an alternative that would involve individual calls for releases by separate members of the WAD. This latter method can work smoothly in the marketing program, because the quantities of water involved in the releases are relatively large and the numbers of M & I contract right holders are relatively small. For example, out of Milford Reservoir, Kansas Power and Light Company is currently the only contract right holder. Administratively, however, the call method could present difficulties. With the large number of WAD members, each calling for relatively small releases as drought conditions continue would be cumbersome not only for the Water Office, which would then request releases by the Corps, but also for the Division of Water Resources, which would have to determine whether quantities released at the request of WAD members were being properly diverted by those members and not by other water users. Also, without continuous water-quality releases, releases from individual calls could result in large transit losses due to dry stream conditions. Releases for individual calls, either done together or sequentially with intervening time periods, would present difficult accounting problems that are obviated by the target-flow method.

The target method allows the right amount of assurance storage to be released, because it flows on top of water-quality releases. Only in the remote situation mentioned above, where water-quality storage has been depleted and assurance storage is used to help make target flows, would the WAD be helping to finance minimum streamflow.

147. Operations Agreement, supra note 104, § 2.III.A.
148. Id. § 2.IV.H.4.
149. Weatherby letter, supra note 144.
150. See supra text accompanying note 149.
The target method, however, does not take into account priority dates of the WAD members' rights. These rights, both surface and groundwater, run the gambit from large, vested rights held by Topeka, Lawrence, and Kansas City to numerous appropriation rights ranging in filing number from as early as number 37 to as recent as number 34,442. The target-flow concept essentially makes all of the water rights held by WAD members equal, at least until a drought gets so bad that assurance water is no longer available. The allocation of WAD costs among individual members could reflect the relative priorities as well as quantities. However, the plan that provides that target flows will always be maintained establishes a system that pretends that river flows are available to meet all rights; it does so by augmenting river flow as if storm events had created sufficient streamflow.

M & I users in a WAD are thus in a better position than other river appropriators, like irrigators. This enhanced position is due to both the target-flow choice over the call method and to the fact that the 1958 Water Supply Act has provided for helping M & I users and not other types of users. In contrast, a hydropower producer like Bowersock might have a mixed reaction to the establishment of a WAD. On the one hand, providing a target flow with stored assurance water could produce some water that it could not have optimally utilized, because the water might have gone by during flood stage at flow rates higher than usable, rather than being stored for future assurance use. Target flows, some of whose waters will pass through Bowersock’s turbines, will tend to even out flows for it and probably on the average provide more chances of usable flows.

On the other hand, Bowersock’s right is a vested right and is the largest on the Kansas River. Water stored as assurance water under a junior water-reservation storage right held by the State of Kansas for consumptive use by upstream M & I users represents a gallon for gallon loss of water that might otherwise have been usable for power production. However, Bowersock’s rights as a vested right holder should enable it to demand that river flow be by-passed any time the flow is lower than its right provides, if its total annual quantity has not been met. Such a call would involve complex calculations and proofs about annual water use to date, amounts of inflow into the reservoirs, and natural flow condi-

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151. Since the Appropriation Act went into effect in 1945, the Division of Water Resources has numbered appropriation rights in order, beginning with the number 1 in 1945 and continuing into the 40,000s in 1991.
tions. Additionally, Kansas’s lack of a historical record on how to administer calls on large rivers like the Kansas River, with an integration of federal reservoirs, creates uncertainties about when and whether such calls would be prudent.

B. Administration of Water Rights Among WAD Members

Under the target-flow procedure, there should be no need for administration of water rights among WAD members until a drought is so serious that assurance releases are no longer available because the assurance water pool has been totally depleted. In such a serious drought, it is doubtful that inflows would be available for by-passing to users. Were they available, by-passed usable inflows would then create an administration problem requiring appropriation rights to be shut off first, and then the vested rights would have to be apportioned—probably by a court and not by the Division of Water Resources, for the reason that the Appropriation Act provides no method of apportioning vested rights. Problems of low stream flow in a prolonged drought would be exacerbated with withdrawals from the alluvium, which would require the Division to seek to integrate groundwater and stream water administration.

C. Storage of Inflows

Inflows needed to satisfy downstream rights senior to the State’s water reservation right in any of the three Kansas River WAD reservoirs would have to be by-passed. Presumably, until all of

152. The Operations Agreement, supra note 104, § 2.IV.F.1., provides that “[i]n the case of water right administration, the Chief Engineer will determine actual natural flow conditions for administering water rights” but that otherwise, “natural flow conditions” are determined under special definitions stated in the contract.

153. Topeka, upstream from Bowersock, holds both a vested right (therefore, equal in quality to Bowersock’s) and an appropriation right (junior to Bowersock’s vested right). It is unclear in a call by Bowersock whether the State would consider that all diversions to date in a given year made by Topeka would be charged first against the vested right and then against the appropriation right, or whether the diversions would be considered to have been made on a pro-rata basis. The answer to that question might determine whether making a call would be prudent.

154. Early drafts of the Operations Agreement contained a provision that members would not seek administration of their water rights while releases were being made from assurance storage. This provision was eventually eliminated in favor of an implicit recognition that such is the case. Telephone interview with Tom Stiles, Water Resources Manager, Kansas Water Office (Nov. 25, 1991).

the assurance storage is depleted in all three reservoirs, only Bowersock and irrigators holding vested rights would request such a call because the other right holders on the Kansas River are M & I users and Kansas River WAD members. The WAD Contract provides the following regarding storage of inflows:

[T]he State agrees to allocate a proportionate share of inflow into each reservoir to the storage space designated for the District. When the storage space designated for the District is less than a given percent of capacity, the District shall receive all inflows necessary to fill the storage space to that percent capacity. The percent capacities of storage space designated for the District, having a priority on inflows shall be: 25 percent in Milford Reservoir, 10 percent in Tuttle Creek Reservoir and 25 percent in Perry Reservoir.\footnote{156}

This provision was negotiated by the WAD essentially to provide favorable treatment for the WAD over future water-market purchasers, some of whom might be from outside of the Kansas River Basin. While this language is arguably broad enough to cover existing market purchasers, they could not be affected because they are not parties to the Operations Agreement—even though they are members of the WAD.

Water reservation rights held by the State for both marketing contracts and the WAD are based on the priority date concept just as appropriation rights are.\footnote{157} For example, the State could have a reservation right for Milford Reservoir and contract with a downstream M & I user to provide marketing water stored under that right. Later, the State might sign an agreement with the WAD, and still later, the State could sign another marketing-water contract with an M & I user from either in or out of the basin. The preferential inflow storages provided by the WAD Contract will protect the WAD, even though nothing in the Water Storage Act\footnote{158} or in the Water Appropriation Act\footnote{159} provides for such a

\footnote{156. WAD Contract, supra note 113, art. 4, at 4-5 (State's Obligation). The Operations Agreement, supra note 104, Section 2.V.E. restates this policy as follows:

The following refill policy shall be followed in allocating inflow to the various storage components:

3. At such time that assurance storage falls below 25 percent capacity in Milford and Perry reservoirs or 10 percent capacity in Tuttle Creek Reservoir, assurance storage in that reservoir will receive all inflow sufficient to refill assurance storage to these specified capacities . . . .

\textit{Id.}}


\footnote{159. Id. §§ 82a-701 to -732.}
preference. For M & I users in the basin, either with or without marketing-water contracts, the preference is not a problem; after all, they are members of the WAD anyway and took part in negotiating the WAD Contract. Indeed, it may be advantageous to the users to have the assurance releases provide water under their water rights rather than have to depend on releases of marketing water, especially if the user has exceeded half of its annual demand under the take-or-pay marketing contract.\textsuperscript{160} Future out-of-basin water-marketing purchasers, however, who depend on the same water reservation right as the in-basin purchasers and the WAD, will watch inflows allocated either proportionately, or even worse, wholly in some cases, to the assurance pool. Furthermore, non-WAD members holding vested rights or senior appropriation rights, like Bowersock and irrigators, might complain about this inflow policy, depending upon stream conditions, inflow rate, and recent precipitation events. The Operations Agreement requires the storage of water for future assurance releases although technically some of these inflows might perhaps be by-passed to satisfy these senior rights. The Operations Agreement takes into account "natural flow,"\textsuperscript{161} a term it defines specifically, and states that only "[i]n the case of water right administration, the Chief Engineer will determine actual natural flow conditions for administering water rights."\textsuperscript{162} Thus, it appears that inflows will not necessarily be by-passed to satisfy senior water rights unless an administration of the rights is sought.

\textbf{D. Membership Costs to Members of the WAD}

The Kansas River WAD's annual payments to the State must be born by its members.\textsuperscript{163} The Act provides that the WAD "shall impose a charge against each member of the water assurance district . . . sufficient to enable the district to pay the state the [costs] of the assurance program."\textsuperscript{164} The Act also states with regard to individual member's costs that "Charges to be paid by members . . . may vary and shall be based on the principle of having each member pay for the pro rata quantity authorized to

\textsuperscript{160} The Water Storage Act, \textit{id.} § 82a-1306(a)(2), has a take-or-pay provision, requiring contract purchasers to pay at least 50% of the annual water contract payment, whether any water releases are made or not. \textit{id.}

\textsuperscript{161} Operations Agreement, \textit{supra} note 104, § 2.IV.F.

\textsuperscript{162} \textit{id.}

\textsuperscript{163} For 1990, costs for the Kansas River WAD were $1,045,605; for 1991, $991,207. See \textit{supra} note 122, for a breakdown of these cost increments.

each member from the assurance program." 165 This differs from
the Water Office's first draft of this piece of legislation which
read, "Charges to be paid by participants . . . may vary and shall
be based on the principle of having the participant pay its pro
rata benefit received by the holder from the assurance program." 166
Thus, the Act provides for charges based on the "pro rata quantity
authorized to each member" while the draft called for charges
based on the "pro rata benefit received by the holder."

The difference is important, but perhaps of historic interest
only. The Act's provision takes into account only the quantity
attribute of a water right. The draft provision took into account
the benefit received, which combines the quantity with the priority
date. The latter recognized that junior appropriation rights for M
& I use would benefit more from the WAD than would vested
rights or more senior appropriation rights. Moreover, the term
"pro rata benefit received" connoted a view looking backward—
the charges would be based on the amounts of assurance water
actually used by members. The draft anticipated the call system,
rather than the target-flow concept. The Act's concept treats all
the members alike, regardless of whether their rights are vested or
whether they are senior or junior appropriators.

The method of cost allocation actually adopted by the Kansas
River WAD members is based on pro rata quantities. 167 For any
given year, the total charge by the State to the WAD is divided
first into two segments: sixty and forty percent. The sixty-percent
figure of the total cost is then further divided pro rata among the
membership based on the year's actual water use such as 1989
Demand MGY (million gallons per year). The forty percent figure
of the total cost is then divided pro rata among the membership
based on the year's total water rights. 168 The purpose seems to be
to shift slightly the burden onto members who use most of their
annual quantities and to relieve slightly those members with large
water rights who are not using them fully. Whether this method

165. Id.
166. Memorandum No. 4, supra note 61, § 5a at 8.
167. Each member signs an individual Conservation Storage Water Supply Capacity
Agreement contract with the WAD. The City of Lawrence, for example, signed such an
agreement on November 27, 1990 (copy on file with the author).
168. Exhibits A-1 and A-2 to the Lawrence Conservation Storage Water Supply Capacity
Agreement, supra note 167, contain tables with columns for demand, total water rights,
membership, pro-rata costs, etc. These tables seem to indicate that the 40% share is based
on "unused water rights" rather than "total water rights." This was apparently an error.
Were the 40% based on unused water rights, members who used their right fully would
be greatly benefitted, since their pro-rata share would be based only on 60% of the costs.
follows the Act's requirement of charges based on a "pro rata quantity authorized to each member from the assurance program" is questionable, but because members agreed on the formula and have so contracted, there is no one to complain, unless a water consumer, like a resident of a WAD member municipality, were to complain that the consumer's rates were higher than they should be.

E. What the State and the WAD Own

Perhaps it is only an academic question, but it is unclear what the Corps, the State, and the WAD actually own. We start with the proposition that the federal government acquires by purchase or condemnation the land and storage space to construct the reservoirs.\textsuperscript{169} The contracts between the Corps and the State that provide for payments by the State to the Corps under the 1958 Flood Control Act for M & I storage each contain the following language: "The State, for the payments and upon the terms and conditions as hereinafter stated, shall have the right to utilize the usable storage space in the Project between [stated elevations] to impound water for municipal and industrial water supply purposes."\textsuperscript{170} The contracts then state that "[u]pon completion of payments by the State, . . . the State shall have a permanent right . . . to the use of the water supply storage space in the Project",\textsuperscript{171} that the State may not transfer any rights under the agreement without permission of the Corps;\textsuperscript{172} that the "permanent rights of the State" continue so long as the United States continues to operate the project; and that the State's rights may continue thereafter only under a newly executed agreement. This language does not provide that a fee estate for the storage right is given; therefore, the interest sounds more like an easement subject to a condition, but certainly more than a leasehold interest.\textsuperscript{173}

\textsuperscript{169} See supra part III.A.


\textsuperscript{171} Perry Lake Contract, supra note 170, art. 7; Milford Contract, supra note 170, art. 7; Tuttle Creek Contract, supra note 49, art. 7.

\textsuperscript{172} Tuttle Creek Contract, supra note 49, art. 9.

\textsuperscript{173} Cf. Peck, supra note 22, at 796, where I stated the following: "In turn, the federal government agrees to reserve for the state a certain storage capacity in these reservoirs. Kansas is therefore not purchasing water from the federal government; it is purchasing storage space to store water that the state controls."
The WAD Act gives the power to negotiate for storage space to the Water Office and not to the WADs themselves, although WADs are empowered to acquire land. The Act provides that “[p]ayments required under a contract between a water assurance district and the Kansas Water Office shall be for storage capacity contracted in federal reservoirs,” which sounds like a sale from the State to the WAD of whatever the State owns. The WAD Contract is unclear regarding exactly what is being bought and sold. It requires the State to “obtain control of conservation water supply space in Milford, Tuttle Creek and Perry reservoirs” and the Kansas River WAD to pay costs, which contain components for the “amount necessary to cover the amortized capital costs to the State for acquisition of conservation storage water supply capacity,” including “100 percent of the costs to the State to acquire the space.”

In summary, it seems that the Corps still owns a fee in the storage space; that the State acquires at most a permanent easement that could be discontinued if the Corps ceases to operate the project, unless a new agreement is consummated; and that the WAD is paying the State to lease the space held in the State’s easement.

VII. CONCLUSION

WADs are still in their infancy in Kansas. This new type of special water district was created to fulfill two laudable purposes: to provide for drought-contingency water for M & I users, and to help pay off the State’s obligation to the federal government. Despite the legal issues discussed above and others yet to surface, the WAD method, conceived by the Water Office and carried out by the Water Authority and the Kansas Legislature, appears to be meeting its objectives.

175. Id. § 1344(c).
176. Id. § 1343(g).
177. WAD Contract, supra note 113, art. 4.
178. Id. art. 5.