LEGAL ASPECTS OF WATER STORAGE IN FEDERAL RESERVOIRS IN KANSAS*

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I. Introduction

Water storage has long been practiced in Kansas and elsewhere to help balance water supplies between times of plenty and times of drought. Water storage practices also alleviate flood damage by storing water until the rains and snow melt diminish, and provide places for recreational activities like fishing, boating, and water skiing. Kansas can boast of having a multitude of surface water impoundments, ranging in size from the small farm pond, through larger bodies such as city water supply lakes, county lakes and lakes built by special water districts such as watershed and drainage districts, to very large federal reservoirs built by the Corps of Engineers and the Bureau of Reclamation. Kansas has placed greater demand on impoundments of all size. This increasing need is caused by higher population, industrial growth, and pollution control. Conflicts already exist among users of water from reservoirs as well as among users along the rivers and streams upstream and downstream from the reservoirs. Little has been written in the Kansas legal literature on water law issues arising from the storage of water.

The purpose of this Article is to address several legal issues involved in one class of reservoir—the federal reservoir in Kansas. While some of the topics covered in this Article are relevant to lakes and ponds, other topics, particularly water reservation rights and federal reserved rights, would primarily concern the federal reservoirs. Section II addresses the general nature of storage rights under Kansas law. Section III deals with water reservation rights, a type of right obtainable only by the State of Kansas for storing water in large reservoirs. Next, section IV entitled Contracts for Municipal and Industrial Water deals with questions of selling this stored water under water reservation rights. Interspersed throughout the Article are suggestions about possible federal rights to water flowing in and out of these reservoirs and to the impounded water itself. Section V

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1 Kansas has occasionally boasted by giving inaccurate information. In a recent film “This is KS”, which was produced by the Travel Industry Association of Kansas and which highlighted Kansas economic and tourist attractions, the narrator claimed that Kansas “has more acres of recreational water than all of Minnesota.” Governor Rudy Perpich of Minnesota corrected the producer of the film when he saw it during the Midwestern Governor’s Conference held in Lawrence, Kansas, in October 1983. Lawrence Journal World, Oct. 11, 1983, at 22, col. 1.


briefly covers this topic by canvassing recent suggestions concerning the existence and the nature of possible federal rights.

II. NATURE OF STORAGE RIGHTS

A. In General

In the western states, the law of prior appropriation governs water rights. Under this doctrine, the first person who diverts water from a stream and puts the water to a beneficial use has a water right. Later appropriators may obtain water rights, but if their uses impair the senior right holder, the later appropriators may be enjoined by the senior. States now provide an administrative permit application process\(^5\) whereby a state water official determines the propriety of granting the right.

Typically, the water is diverted from the stream and put to an immediate beneficial use, such as domestic, irrigation, municipal or industrial. Because of the fluctuations of stream flow, however, the water may not be in the stream when the user wants the water. Conversely, in springtime the streams flow full or even flood, and water is not diverted because there is enough precipitation for the user. For many years, because of these fluctuations, water has been diverted and stored for later use. In his multi-volume work on water law, Clark defines “storage” as “[t]he natural or artificial impoundment and accumulation of waters in surface or underground reservoirs, usually for later withdrawal or release.”\(^6\) The water may be stored for the purpose named in the appropriation right, like irrigation, or it may be “excess waters,” which are “controlled waters in storage or in carriage which are beyond the needs of the owners of works.”\(^7\)

A “storage right” or “reservoir right” or “reservoir storage right” or “reservation right” is the right “to appropriate, that is, to divert and collect water for later application to a beneficial use.”\(^8\) Storage has been considered a beneficial use, thus qualifying diversion and storage for some future use as an appropriation right,\(^9\) but storage alone with no other purpose is not a beneficial use.\(^10\) “Historically, the storage right was based on the same principles as other valid appropriations,”\(^11\) “although procedures for filing an application for storage vary.”\(^12\) For example, some states like Arizona,\(^13\) Nevada,\(^14\) Wyoming\(^15\) and Oregon\(^16\) provide a two-tiered permit system for storage: the “primary” permit is sought for

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\(^6\) 7 R. CLARK, C. DAVIS, H. COBLENTZ, & O. TITELBAUM, WATERS AND WATER RIGHTS 316 (1976) [hereinafter cited as 7 WATERS AND WATER RIGHTS].

\(^7\) 1 R. CLARK, S.V. CIRACI-WAYNTRUP, W. HUTCHINS, C. MARTZ, S. SATO, & A. STONE, WATERS AND WATER RIGHTS § 3.2(E), at 28 (1967) [hereinafter cited as 1 WATERS AND WATER RIGHTS].

\(^8\) Comment, Nature of a Reservation Right, 3 LAND & WATER L. REV. 444, 445 (1968) (citing statutes from Arizona, Oregon, and Wyoming).

\(^9\) 5 R. CLARK, R. BECK, & E. CLYDE, WATERS AND WATER RIGHTS § 408.3, at 82 (1972) [hereinafter cited as 5 WATERS AND WATER RIGHTS].

\(^10\) Id. at 82 n.57.

\(^11\) Id. at 82.

\(^12\) Id. at 84.

\(^13\) ARIZ. REV. STAT. ANN. § 45-151 (Supp. 1983).


\(^16\) OR. REV. STAT. § 537.300(2) (1983).
construction of and diversion from the stream to the reservoir; the "secondary" permit is obtained by the ultimate user. Other states like New Mexico\textsuperscript{17} and Utah\textsuperscript{18} require a single filing for both storage and beneficial use of the water, "the reservoir being part of the distribution system."\textsuperscript{19} Assuming that a storage right is obtained, it is considered equal to an appropriative right; the storage right may not impair vested rights or senior appropriation rights.

The future use aspect of the storage water in a reservoir presents a problem. Assuming an upstream senior storage right takes water for storage for some future use, a junior downstream appropriator with an instant need would question the propriety of allowing the storage user to divert the water only to hold it for future use, when the junior is unable to take the water for more immediate needs.\textsuperscript{20} Since the storage right is senior, however, it will be treated like a senior appropriation right as against a junior.\textsuperscript{21}

An additional problem that has been litigated is the extent of the storage right. How much is the holder of the storage right entitled to divert and store? The general rule is that the right "entitles the owner to fill the [reservoir] once during any one year, up to its capacity, and restricts the right, upon one appropriation, to a single filling for any one year."\textsuperscript{22} Thus, the size of the reservoir determines the quantity.\textsuperscript{23}

B. Storage Rights in Kansas

1. The Kansas Water Appropriation Act

The Kansas Water Appropriation Act does not expressly mention "storage rights." The Act defines only "vested rights" and "appropriation rights" as "water rights" in the definitions section.\textsuperscript{24} In fact, language in the Act may support the argument that storage for later application of water is not permitted as part of a Kansas appropriation right. An "appropriation right" is defined as a "right . . . to divert . . . a specific quantity of water at a specific rate of diversion . . . and to apply such water to a specific beneficial use. . . ."\textsuperscript{25} A "water right" is a vested right or appropriation right "under which a person may lawfully divert and use water."\textsuperscript{26} Although these sections do not unequivocally indicate that the appropriator may not hold the water for later use, they do appear to require an immediate application of the water.

Other sections of the Appropriation Act, however, inferentially indicate that storage could be a part of an appropriation right. For example, section 710 requires that all maps, plats, plans and drawings submitted in support of an application show "all proposed dams . . . reservoirs, canals . . . and other structures

\begin{footnotes}
\footnote{\textsuperscript{17} N.M. Stat. Ann. §§ 75-1-2, 75-5-1, 75-5-8, 75-5-14, 75-5-27 (1978 & Supp. 1983). See 5 Waters and Water Rights, supra note 9, at 91.}
\footnote{\textsuperscript{18} Utah Code Ann. § 73-3-20 (1980).}
\footnote{\textsuperscript{19} W. Hutchins, 3 Selected Problems in the Law of Water Rights in the West, U.S.D.A. Misc. Pub. No. 418, at 325 (1942) [hereinafter cited as W. Hutchins].}
\footnote{\textsuperscript{20} Professor Schurtz noted these problems in the Kansas context in Report, supra note 4, at 79-81.}
\footnote{\textsuperscript{21} W. Hutchins, supra note 19, at 325.}
\footnote{\textsuperscript{22} Windsor Reservoir & Canal Co. v. Lake Supply Ditch Co., 44 Colo. 214, 224, 98 P. 729, 733 (1908).}
\footnote{\textsuperscript{23} Numerous other diverse and complex problems have been litigated in western states. See 5 Waters and Water Rights, supra note 9, at §§ 408.3, 410.4.}
\footnote{\textsuperscript{24} Kan. Stat. Ann. §§ 82a-701(d), (f), (g) (1977).}
\footnote{\textsuperscript{25} Id. § 82a-701(f).}
\footnote{\textsuperscript{26} Id. § 82a-701(g).}
\end{footnotes}
for the purpose of storing, conveying or using water . . . .”\textsuperscript{27} Under section 708a the application fee for an appropriation right varies depending on whether storage is involved or not.\textsuperscript{28} The application must be approved before the “commencement of any work in connection with the construction . . . of any works for the diversion, storage, and use of water.”\textsuperscript{29}

In discussing “storage rights” under Kansas law in 1956, Professor Shurtz noted that the Chief Engineer was recognizing the right of appropriators to store water as a part of the appropriation right itself, but he stated that “whether Kansas law would sustain this position is open to question.”\textsuperscript{30} He further stated: “An appropriator’s standing to appropriate natural flows during periods of high flows and to store those waters for later use as against persons later seeking appropriation rights is uncertain as a legal question and most difficult as a policy question.”\textsuperscript{31}

2. Other Kansas Law and Practice

As stated above, Professor Shurtz found that the Chief Engineer was allowing storage as part of an appropriation right when Shurtz made his study in 1956. That practice continues today.\textsuperscript{32} On what authority does the Chief Engineer recognize the right to store the water for later use? There are legislative pronouncements outside the Appropriation Act that both expressly and impliedly permit storage of water prior to using the water. Based on this authority and the sections from the appropriation act discussed above, the Chief Engineer has promulgated rules and regulations that help define storage by amount and time.

\textit{a. Other statutory authority}. The most explicit authority recognizing storage rights is found in the State Water Plan Storage Act.\textsuperscript{33} That act, however, covers only storage rights obtained by the Director of the Kansas Water Office from major reservoirs listed in the state water plan.\textsuperscript{34} A full discussion of that act occurs later in this article.\textsuperscript{35}

A second authority recognizing these rights is section 42-313 of the Kansas Statutes Annotated:

\begin{quote}
Right to collect and store water.
Any person entitled to use water for beneficial purposes may collect and store the same and all natural flows for use thereafter, so long as such collection, storage, use and times of use thereafter are consistent with reasonable storage and conservation practices; and the failure to apply or use such waters during the period of such collection and storage shall not be deemed or taken to impair his right in that behalf: \textit{Provided}, such collection and storage of all natural flows shall be subject to vested rights and
\end{quote}

\textsuperscript{27} \textit{Id.} § 82a-710.
\textsuperscript{28} \textit{Id.} § 82a-708a (Supp. 1982).
\textsuperscript{29} \textit{Id.} § 82a-709.
\textsuperscript{30} See \textit{Report}, supra note 4, at 80.
\textsuperscript{31} \textit{Id.}
\textsuperscript{32} Telephone conversation with Leland Rolfs, Attorney, Division of Water Resources, Kansas State Board of Agriculture, June 10, 1983.
\textsuperscript{34} \textit{Id.} § 82a-1302.
\textsuperscript{35} See infra text accompanying notes 62-196.
prior appropriation rights.\textsuperscript{36}

Interestingly, this provision is not found in the Kansas Appropriation Act. Instead, it is located in Chapter 42 of the Kansas Statutes Annotated, which concerns irrigation. This fact raises many questions. Had the provision been enacted with the Appropriation Act, the Chief Engineer would have clearer authority that any appropriation right could include the right to store the water diverted prior to use and that the storage could be deemed part of the appropriation right. The Kansas storage right might be characterized as akin to those of other mentioned states that recognize a one-step storage/appropriation right. Yet its origins and location among statutes pertaining to irrigation raise some doubt whether the section can be used as authority for allowing storage as part of appropriation rights in general.

Originally Kansas was a common law state with respect to water rights and therefore recognized the riparian right.\textsuperscript{37} In 1886, Kansas first recognized a water right by appropriation when the legislature provided that the “right to the use of running water flowing in a river or stream in this state, for the purposes of irrigation, may be acquired by appropriation. As between appropriators, the one first in time is the first in right.”\textsuperscript{38} When the General Statutes of 1889 codified that section (hereinafter referred to as statute A), it was placed in Chapter 52a, entitled “irrigation.”\textsuperscript{39}

In 1891, the legislature enacted an extensive bill concerning water appropriation, two sections of which are relevant to the present inquiry:

\textbf{CHAPTER 133. Irrigation.} An Act providing for and regulating the diversion, appropriation, storage, and distribution of waters for industrial purpose \ldots; providing for the creation of irrigation districts \ldots.

\textit{Be it enacted by the Legislature of the State of Kansas:} In the manner following; that is to say:

\textbf{ARTICLE I. Of the Diversion and Appropriation of Water for Industrial Uses.}

\textbf{SECTION 1.} In all that portion of the state of Kansas situated west of the ninety-ninth meridian, all natural waters \ldots shall be devoted first, to purposes of irrigation in aid of agriculture, subject to ordinary domestic uses, and secondly, to other industrial purposes; and may be diverted from natural beds \ldots for such purposes and uses \ldots.

\textbf{ARTICLE II. Of the Right of Use of Water.}

\textbf{SECTION 4.} Any person entitled to the use of water for the irrigation of lands or other purposes whatsoever may, at any time while so entitled to the use thereof, collect and store the same up for use presently thereafter, and the failure to apply or use such waters during the period of such collection and storage shall not be deemed or taken to impair his right in that behalf.\textsuperscript{40}

(Section 1 is referred to as statute B, and Section 4 as statute C in the following discussion). So at this time Kansas law provided for the following: irrigators possessed the right to acquire appropriation rights; rights could be obtained for industrial purposes and domestic purposes west of the ninety-ninth meridian;

\textsuperscript{37} \textit{Report, supra} note 4, at 26.
\textsuperscript{38} Irrigation Act, ch. 115, 1886 Kan. Sess. Laws § 1, (Feb. 26, 1886).
\textsuperscript{39} 1 \textit{Gen. Stat. Kan.} ch. 52a, ¶ 3516 (Taylor 1889).
\textsuperscript{40} Irrigation Act, ch. 133, 1891 Kan. Sess. Laws §§ 1, 4 (approved Mar. 10, 1891).
persons with appropriation rights for irrigation and “other purposes whatsoever” could store water.

The codification of these sections from the various session laws is instructive. Prior to the enactment of any of these three statutes, there existed a codification called “Compiled Laws of Kansas—1885,” which included Chapter 52a titled “Irrigation.” This chapter comprised only two short sections in 1885. Dassler compiled these statutes, as he also did in 1889, when he again used Chapter 52a for “irrigation;” here he placed statute A. Webb codified the next laws in 1897. In his preface he included a reference to an earlier statute concerning the power of the compiler to prepare general statutes for publication: “[He] may arrange the several subjects in such order as may be most convenient and easy of reference.”41 Webb did not include Chapter 52a on irrigation; rather, he created Chapter 78 on “Irrigation and Forestry” in which he included statute A. In Chapter 79, titled “Of the Storage of Waters, and Irrigation, West of the 99th Degree of West Longitude,” Webb placed statutes B and C.

In 1899, Dassler returned as compiler of laws and switched back to using Chapter 52a for “Irrigation laws.”42 At this stage, however, he used subtitles under the general irrigation heading. He put statute A under “An Act Concerning Irrigation”; he put statute B under “Of the Diversion & Appropriation of Water for Industrial Purposes”; and he put statute C under “Of the Right of Use of Water.” Dassler repeated this procedure in his 1901,43 1905,44 and 190945 “General Statutes of Kansas,” but the chapter numbers changed, to 52b in 1905 and to 59 in 1909.

In 1923 the first “Revised Statutes of Kansas”46 by Long, Smith & Farrell appeared. All the formerly entitled irrigation material was placed in Chapter 42, entitled “Irrigation.” Statute A was under Article 1—General Provisions. Statute B was under Article 3—Irrigation and Irrigation Districts—(a) Diversion and Appropriation of Water for Industrial Uses. Statute C was also under Article 3, but appeared under subsection (b)—Right to Use of Water. The 193547 and the 194948 revisions of the statutes kept this format, but by 1949 the legislature had repealed statutes A and B. Meanwhile, the 1945 legislature passed the Kansas Water Appropriation Act,49 and when codified it was placed in Chapter 82a.50

The current version of the codification of Kansas legislative enactments, the “Kansas Statutes Annotated,” first appeared in 1964.51 Corrick’s 1964 version retained chapter 42 for irrigation generally. Article 1 was subtitled “General Provisions,” while Article 3 was still subtitled “Irrigation and Irrigation Districts”; both articles are still so entitled today. Section 42-313, the current version

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of statute C, still appears under a sub-title called "Right to Use of Water." The Kansas Water Appropriation Act is in Chapter 82a, sections 701 to 731.

The issue is what weight should the Chief Engineer place on the fact that statute C on storage rights is found currently in chapter 42 entitled "Irrigation"; that the legislature originally passed it as part of a bill entitled "Irrigation"; that the original bill in 1891 recognized only two uses of water other than irrigation uses: domestic and industrial; that that bill discussed these additional uses only as existing west of the ninety-ninth meridian (roughly the western third of the state); and that through its life, statute C has always been under a title of "Irrigation" even though its subtitles purportedly broaden its application.

A very narrow reading of the statute in its original form would allow the Chief Engineer to recognize storage rights only for irrigation or domestic uses over the whole state, or for industrial use west of the ninety-ninth meridian. In all other cases, including power, municipal, recreational, etc., the Chief Engineer arguably should not allow storage.

Since the Chief Engineer recognizes the right of appropriators to store their water, he obviously places little weight on the above arguments. His position is not without support. The broad language of section 42-313 (statute C) lends support to the right of storage. In 1957 when the legislature amended the original version, it removed all reference to irrigation, and the section was made applicable to uses for "beneficial purposes."52 These changes were recommended by Professor Shurtz who stated that the legislature could amend the section (as it did) "short of spelling out an appropriation storage right."53 Consequently, Shurtz himself did not feel that such a change would be tantamount to establishing a general storage right. Second, under rules of statutory construction, the label placed on a section of a code by the compiler should not necessarily govern the meaning of the statute.54 A third argument for the Chief Engineer's position is that the legislature has carefully kept section 42-313 in the books, despite the repeal of much of the rest of chapter 42 over the years. This would indicate the

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53 Report, supra note 4, at 80.
54 See, e.g., Thoman v. Farmers & Bankers Life Ins. Co., 155 Kan. 806, 810, 130 P.2d 551, 554 (1942) (quoting Morrill County v. Bliss, 125 Neb. 97, 249 N.W. 98 (1933)).

Statutes relating to the same subject, although enacted at different times, are in pari materia and should be construed together. . . . A statute will not be construed as repealing by implication an earlier statute, unless there is a plain and unavoidable repugnance . . . . All statutes upon the same general subject are to be regarded as part of one system, and later statutes are to be considered as supplementary or complementary to those preceding them on the same subject.

See also 73 Am. Jur. 2d Statutes § 188 (1974) "Under the rule of statutory construction of statutes in pari materia, statutes are not to be considered as isolated fragments of law, but as whole, or as parts of a great, connected, homogeneous system.", 73 Am. Jur. 2d Statutes § 321 (1974):

In construing a provision of a code or compilation, it is generally regarded as legitimate and proper to consider the title of the original act. Moreover, the phraseology of a headnote or headline of a section of a statute or the headings of main subdivisions of codes and similar collections of enactments may properly be considered in aid of the construction of a section belonging to the group to which they are prefixed, where the provision under review is not one of doubtful import. . . . On the other hand, there is authority in support of the view that in arriving at the true construction of any particular section of a code, very little reliance may be placed upon the heading under which it may be found.

The problem with that argument here is that the original part of the session laws as passed called this an irrigation law: "Chapter 33. Irrigation . . . . See supra note 40. It does, on the other hand, go on in its title to describe it as a bill to allow storage of industrial waters.
importance placed on the ability to recognize storage, especially by those users such as municipalities to which storage is absolutely necessary.

The Chief Engineer is probably correct in construing this statute broadly enough to allow an appropriation right to include storage. The legislature, however, should consider cleaning up this problem by specifying that section 42-313 should appear in the Water Appropriation Act, or by repealing section 42-313 and re-enacting the same or a similar law that would clearly appear in the Appropriation Act. What Shurtleff stated in 1956 concerning storage rights is still true today: “Because of the importance of this problem, much further study should be given to the possible desirability of expressly making water storage a beneficial use and expressly creating special appropriation storage rights.”55

Yet several other non-appropriation statutes exist that indicate that the Chief Engineer should recognize the storage rights. One statute prohibits the construction of any dam in the state that impounds thirty acre-feet or more of water without prior permission of the Chief Engineer.56 Kansas also encourages the building of reservoirs for the “collection and storage of surface water or flood detention storage” by providing for an exemption from taxes levied on the land.57

b. Rules and regulations. The Chief Engineer has promulgated rules and regulations for storage, thus implying the authority to recognize storage as part of an appropriation right. In section 5-1-1(y) “surface water” is defined as “water in creeks, rivers or other water courses, and in reservoirs, lakes and ponds.”58 Storage for domestic use is permitted by section 5-3-3 as follows:

Any person entitled to use water for beneficial purposes may collect and store the same as long as such collection, storage, use and times of use thereafter are consistent with reasonable storage and conservation practices. [This is verbatim the language of the first phrase of Kan. Stat. Ann. § 42-313]. A reasonable quantity of water stored for domestic use shall be considered to be that quantity sufficient to satisfy the domestic use for the current year and two succeeding years.59

In section 5-6-1 of the Article entitled “Storage of Water,” the regulation sets forth the information required of an applicant intending to store water.60 The information consists of the same material required for a regular appropriation permit application, but in addition he must show: (a) the area-capacity data of the reservoir in which the water is to be stored; (b) the drainage area; (c) the names of the owners of lands that will be inundated by the collected water; and (d) any additional relevant information. Section 5-6-2 provides special requirements for storage of water in watershed district reservoirs.61

55 Report, supra note 4, at 81.
57 Id. §§ 82a-405 & 79-2019 (1977).
59 Id. at 5-3-3.
60 Id. at 5-6-1.
61 Id. at 5-6-2.
III. Kansas Water Reservation Rights

A. Introduction

As previously discussed, some question remains whether a storage right exists in Kansas under the appropriation act. Yet the Chief Engineer, with good legal authority, has recognized the right of an appropriator to store water as part of the right to divert and use the water under the appropriation right. The Kansas statutes, however, contain a chapter that expressly creates a storage right for the state.62 This so-called "water reservation right" can be obtained only by the Director of the Kansas Water Office in reservoirs named in the state water plan. Section III of this article will discuss this reservation right by examining the procedure by which it is obtained, the nature of the right compared to appropriation rights, the possible conflicts between a reservation right and upstream or downstream appropriation rights, and several other legal issues involving reservation rights.

B. Procedure in Obtaining a Reservation Right

1. Giving Assurance to the Federal Government

Kansas has been the beneficiary of a number of federally constructed dams and reservoirs in the last forty years. The current State Water Plan lists thirty-two "Major Reservoirs in Kansas."63 Of these thirty-two reservoirs, the Bureau of Reclamation constructed seven and, except Cheney Reservoir which supplies some of Wichita’s water supply, each Reclamation Reservoir has irrigation as its primary function.64 A majority of the thirty-two are Corps of Engineers reservoirs, thus having flood control as the primary function. Only seventeen of these Corps reservoirs have actually been constructed. Congress has authorized all of the remaining unbuilt reservoirs but they are either not yet started or are on deferred status.

Under federal law, multi-purpose reservoirs may be constructed.65 If the primary function of the reservoir is flood control, the Corps of Engineers will usually construct the dam and have control of the operation of the works. If the primary purpose is irrigation, the Bureau of Reclamation will usually construct and operate the works. Federal law allows both entities to build storage for water supply conservation into the reservoirs.66 It is to this storage that the reservation rights under Kansas law are relevant.

Figures 1 and 2 illustrate the procedure for the storing and selling of water in these reservoirs for supply purposes.

63 Id. § 82a-950 (Supp. 1983). This is one less than the list in 1981 when Onaga Reservoir was on the list; Onaga was deleted by the 1982 Legislative Session. Act of March 30, 1982, ch. 437, 1982 Kan. Sess. Laws 1790.
65 See 7 Waters and Water Rights, supra note 6, at 156, 473, 505-06, 561-63.
The federal agency involved can contract with any nonfederal agency for storage of the water. The federal agency can deal directly with the state through the Kansas Water Office, as the Corps of Engineers did at Clinton Reservoir. The agency can also deal directly with a city for municipal water, as the Bureau of

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Reclamation did with the City of Russell at Cedar Bluff Reservoir. The Bureau of Reclamation has contracted for storage and distribution of irrigation waters directly with irrigation districts formed under state law.

Under the Water Supply Act of 1958, the federal government, in order to build storage into a project for future municipal and industrial use, must receive assurances of future use from a nonfederal entity. Further assurance must be given that the nonfederal entity will pay for the costs of including such supply storage in the project. Over the years, Kansas has provided assurances for repayment of water supply storage in fourteen reservoirs built by the Corps of Engineers. For nine of the fourteen reservoirs, the state has signed contracts binding the state to repay. 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. Thus, a reservoir, already planned for other purposes, can be enlarged based on the assurance by the state of the need for present and future municipal and industrial supply. The state agrees to pay for the construction costs for the added storage space and water supply facilities, and for its share of the cost of the operation and maintenance during the life of the project.

One project illustrates this federal-state relationship. Clinton Reservoir, on the Wakarusa River in Douglas County, Kansas, lies in the Kansas River Basin, which is part of the Missouri River Basin. Congress authorized the project in

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68 See Agreement Between the United States of America and the State of Kansas for Water Supply Storage Space in Clinton Lake, Wakarusa River, Kansas, Contract No. DACW44-77-C-0149 (September 6, 1978) [hereinafter cited as Wakarusa River Agreement]; United States Department of the Interior Bureau of Reclamation Missouri River Basin Project Contract for Furnishing Water to the City of Russell, Kansas, Contract No. 14-06-700-3930 (April 23, 1963) (on file with the Kansas Water Office). The Clinton contract actually provides that the state will purchase water supply storage, while the Russell contract provides that the Bureau of Reclamation will provide water up to a prescribed annual amount to the City of Russell.


71 See supra note 64, at 2. The fourteen reservoirs are Milford, Perry, John Redmond, Elk City, Council Grove, Marion, Hillsdale, Big Hill, and Clinton, all of which have been constructed; and Towanda, Douglas, Corbin, Ft. Scott, and Onaga, which have been authorized but not constructed. Onaga was dropped from the State Water Plan list of major reservoirs by the 1982 Legislature. See supra note 63. The first assurance was given by the Kansas Legislature in 1961 by a Concurrent Resolution. This assurance concerned storage in Milford, Perry, John Redmond, Elk City, and Council Grove Reservoirs. In 1965, as part of the State Water Plan Act, Kan. Stat. Ann. §§ 82a-901 to 926 (1977 & Supp. 1963), the legislature empowered the Kansas Water Resources Board to enter into agreements with the federal government for conservation storage features for water supply. See Kan. Stat. Ann. § 82a-934 (1977) (current version in Supp. 1983). Following this legislation, the Board provided assurances for eight other reservoirs. The successor agency, the Kansas Water Office, has provided assurances for one. See supra note 64, at 1-5.

72 See supra note 64, at 2, 4.

73 The language of a typical contract is as follows:


a. The state . . . shall have the right to utilize __ percent . . . of the total storage space in the Project between elevation __ feet . . . and elevation __ feet above mean sea level, having a total design capacity of __ acre-feet, . . . to impound water for municipal and industrial water supply purposes, and to make withdrawals . . . to the extent that the space allocated will yield.

See Wakarusa River Agreement, supra note 68.
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1962 as part of the Flood Control Act of 1962,74 and it has the following functions: Flood control, water supply, streamflow regulation, recreation, and fish, and wildlife.75 The Kansas Water Resources Board (now the Kansas Water Office) provided to the Corps of Engineers the required assurances on August 25, 1965, for 110,400 acre-feet (after 100 years of sedimentation) of water supply storage.76 Construction of the dam and facilities began on January 27, 1972, and the Corps closed the gates to begin permanent impoundment on November 30, 1977.77 The Board signed a contract78 with the Corps of Engineers dated September 6, 1977, for the water supply storage and for repayment of that storage. That contract gives the state the right to use 80.8 percent of the 110,400 acre-feet storage to impound water for municipal and industrial water supply purposes.79 Although the contract does not expressly so provide, the Corps of Engineers retains the balance of the 110,400 acre-feet storage (19.2 percent, 21,200 acre-feet).80 The state is paying the federal government under this contract for 89,200 acre-feet of storage. The Corps of Engineers controls the balance of this storage space.

An interesting part of the contract is the language following the granting of the storage space to the state:

b. . . . The right to utilize the undivided percentage of storage space shall also include the right to a proportionate percentage of inflows, subject to passage of a pro rata share of any required inflows to meet downstream water rights. . . .81

This language appears to claim implicitly a United States right to the inflow since it grants the state a percentage of the inflow. Alternatively, this language may recognize a right in, or grant a right to, the United States by the Kansas Water Office. Arguably, under Kansas law82 only the Chief Engineer has the authority to grant water rights. Another problem with this view is that at any given time the actual relative amounts of water in storage will vary, while the relative amounts of storage remain constant. For example, the state could have three-quarters of its 80.8 percent space available to store water, while the United States could have its percentage of the space filled. Yet the contract says that the state may not have the total inflow to fill up its storage; it can have only 80.8

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75 The functions of the reservoir are not clear from the Act or from the accompanying congressional documents, see supra note 74, but the State Water Plan shows those listed in the text as “long-range purposes” of the project. See Kan. Stat. Ann. § 82a-938 (Supp. 1983).
76 SEVENTH REPORT TO THE GOVERNOR, supra note 64, at 43.
77 Id.
78 Id.
79 Id.
80 Article 1, titled Water Supply Storage, first grants the state the right to utilize a percentage of the total storage space between two stated elevations. See supra note 73. Subsection b. spells out how the state may begin by increments to use the storage space granted. Subsection f. provides the following: “The United States reserves the right to maintain a minimum downstream release through the gates or spillway of the dam, except that such release shall not be made from storage for which the State has initiated payment. . . .” Article 1 sets out how the state’s storage rights will become permanent rights after all required payments are made.
81 Id.
percent of the inflow. Thus, theoretically at least, the United States could prevent the state from filling to its allotted storage space with water as quickly as it otherwise could.

2. Obtaining the Reservation Right from the Chief Engineer

The second step in the procedure to obtain a reservation right is for the Kansas Water Office to obtain the “water reservation right” from the Chief Engineer of the Division of Water Resources of the Department of Agriculture. Under the Water Appropriation Act, the Chief Engineer is responsible for approving permit applications for water appropriation rights in Kansas, and for administering the rights. Under the State Water Plan Storage Act, the Chief Engineer also has the duty to review the notice of the water reservation right filed by the Water Office. He may then accept the notice or inform the Director that the notice does not comply with the statutory requirements. The Director in turn must modify the notice to make it comply.

The Water Office initiates the procedure by filing a written notice with the Chief Engineer which includes (1) the name of the stream on which the reservoir is or will be located; (2) the name of the reservoir; (3) the legal description of the point of diversion for the reservoir (defined in the definitions section as “the point where the longitudinal axis of the dam of a reservoir crosses the center of the streambed”); and (4) hydrologic calculations to substantiate the quantity of the reservation right sought. Once accepted, the reservation right dates from the date of the original filing with the Chief Engineer.

C. Nature of the Water Reservation Right

As this author stated in an earlier law review article that discussed reservation rights: “These water reservation rights are akin to but not exactly like an appropriation right or a vested right under Kansas law.” In fact, the water plan storage act expressly states that the Director of the Water Office need not acquire an appropriation right in addition to the reservation right. Basically, the reservation right is a storage right giving the Water Office the right to “divert and store” a certain quantity of water “flowing into the conservation storage water supply capacity” of a reservoir. This right is subject to “all vested rights, appropriation rights, approved applications for permits to appropriate water and other vested property interests acquired prior to the state’s acquisition, but not to those acquired thereafter.”

Federal reservoirs in Kansas have been constructed on the streams and rivers themselves so there is no diversion in the usual layman’s sense of physically moving water out of the stream, but rather simply an impounding of the water be-

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85 Id.
87 Peck, Legal Constraints on Diverting Water from Eastern Kansas to Western Kansas, 30 Kan. L. Rev. 159, 177 (1982).
90 Id.
hind a dam. Consequently, it is perhaps easier to understand the water reservation right if one envisions the reservoir to be off of the river. Once the state has acquired the reservation right, it can “divert and store” the quantity under the right, subject to existing rights but in priority to later rights, whether up or downstream. If there is an upstream junior right, for example, the state may enjoin the diversion by the junior; if there is a downstream junior, the state may divert and store despite the injury to that junior. But if the upstream user is senior, the state has no right to enjoin him; if the senior appropriator is downstream, he may demand that water to the extent of his right be allowed to flow down the river. Because the reservoir is on the stream, this letting the inflow pass on downstream is called “bypassing” the water. So, while not an appropriation right as such, the reservation right is recognized as being similar in its rights and limitations.

A reservation right is different from an appropriation right since the latter is a “real property right, appurtenant to and severable from” the land to which it attaches. As such, the appropriation right may be sold or condemned, and its type of use, place of use, and place of diversion may be changed. Since only the Kansas Water Office may obtain a water reservation right under the statute, and since the water under such rights is sold with the money accruing to the state, such a right could not be sold by the state to some private or even public entity without legislative approval. The federal government could presumably condemn the right even though it is not defined as a “real property right.” As stated above, the reservation right is like the storage right existing in some states that combine a storage component with a use component under an appropriation right.

Although the failure of the holder of an appropriation right to use the water under the right for a period of time without a valid excuse will result in the loss of that right, a water reservation right does not appear to have a requirement of use by the state. The Water Plan Storage Act contains no provision stating that the state will lose its right if it does not sell the water to cities and industries within a certain period of time. Therefore, once the state obtains the right, it holds that right in perpetuity, regardless of whether the state ever uses the water. It is in the best interest of the state, however, to sell the stored water under contract because the state uses this revenue to repay the federal government for its part of the construction, operation, and maintenance costs of the reservoirs.

D. Conflicts between Appropriation Rights and Water Reservation Rights

Assume a nonnavigable tributary of a navigable river in Kansas upon which there is no federal reservoir. Assume further that there exist two water rights on the stream, the downstream right being senior to the upstream right. If the upstream user’s diversion impairs the downstream user’s right, the downstream user has several legal remedies. Since it is the duty of the Chief Engineer to enforce

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[91] The Chief Engineer defines “diversion” as “[t]he act of bringing water under control by means of a well, pump, dam or other devices for delivery and distribution for the proposed use.” KAN. ADMIN. REGS. § 5-1-1(g) (Supp. 1982).
[93] Id. § 82a-701(g) (1977).
[94] Id. § 82a-718 (1977); id. § 42-308 (1981). The forfeiture period is three years in Kansas.
the laws of the state, the aggrieved party can request the help of the Chief Engineer, who may issue a cease and desist order against the upstream user. If the violator does not comply with that order, the Chief Engineer can request that the Attorney General bring suit to enjoin the use of the water. Alternatively, the aggrieved party can bring suit directly against the upstream user for an injunction or for damages.

Now, suppose that between the two water users, the federal government constructs a reservoir. The State of Kansas in obtaining its water reservation right would be junior to both existing water rights, but would be prior to the holder of a permit, now the fourth right on the stream, who filed after the state filed notice for the reservation right. This is the case even if construction of the reservoir, storage of the water, sale of the stored water, and diversion of that sold water does not occur until long after this junior appropriator begins to divert water. The reason is that the water reservation right is dated “as of the date of the original filing.” Thus, in a conflict between the State of Kansas, acting for purchasers of water storage rights from the federal reservoir under its reservation right, and an appropriator who is junior to the filing date of the state for the water reservation right, the state prevails. But the statute gives even more of a priority advantage to the state in that the state’s reservation right is subject only to “approved applications for permits . . . .” Consequently, if an appropriator files for a permit but before the Chief Engineer approves the permit the state files for its reservation right, the state is prior. This is true even though the appropriator’s permit has an earlier priority date than the state’s reservation right.

In the event of a drought, it is important to determine the relative rights of the four water users on the stream. These users are the downstream appropriator, #1; the upstream appropriator, #2; the state lying between #1 and #2 as holder of a water reservation right, #3; and the downstream junior who obtained his permit after the state filed for its water reservation right, #4. The downstream appropriator #1 has no rights in the water stored in the reservoir; his rights are only out of the river, not from storage, even though he is the seniormost appropriator in this case. If there is no water flowing into the reservoir, #1 is entitled to no water, but if there is water flowing into the reservoir, and that water would have reached his point of diversion, #1 is entitled to have this water “bypassed” to him.

Since the upstream user #2 is prior to the state, #2 could divert water to the

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95 Id. §§ 82a-706, -706b (1977).
96 Id. § 82a-706d (1977).
97 Id. §§ 82a-716, -717a, -721a (1977). Because there are no Kansas cases construing “impairment” of a right in a stream since the enactment of the Water Appropriation Act, Kansas courts would have to resort to other common law doctrines concerning impairment. For example, the upstream junior appropriator may have to let the water go past him even if much of the water would be lost by evaporation or seepage before getting to the downstream user’s point of diversion. See State ex rel. Cary v. Cochran, 138 Neb. 163, 292 N.W. 239 (1940). The Water Appropriation Act, however, does contain some help in determining whether there has been an impairment: “[W]ith regard to whether a proposed use will impair a use under an existing water right, impairment shall include the unreasonable raising or lowering of the static water level or the unreasonable deterioration of the water quality at the water user’s point of diversion beyond a reasonable economic limit.” KAN. STAT. ANN. § 82a-711 (Supp. 1983).
98 KAN. STAT. ANN. § 82a-1304 (Supp. 1983).
99 Id. § 82a-1303(a) (Supp. 1983) (emphasis added).
100 Although this terminology is not used in the statutes, it follows from a reading of KAN. STAT. ANN. §§ 82a-706b, -716, -717a (1977); and id. §§ 82a-1303, -1304, -1318 (Supp. 1983).
detriment of the state’s water reservation right, up to his permit rate and quantity. The state could store water under its permit after the rights of #1 and #2 are fulfilled. But #4, being last in priority and depending upon the quantities involved, might be left out: he could not take any of #1’s water; #2 would have already taken his own water; and the state would have stored up to its permitted amount, possibly leaving nothing for #4.

The State Water Plan Storage Act specifies in general terms the magnitude of the state’s water reservation right. Since the quantity and rate of a water right in an appropriation state determine the limit of the right, how the quantity of the reservation right is determined, discussed more extensively in the next subsection, is very important to the water rights that are junior to that reservation right. This is true, of course, in the case of any appropriation right, but it is especially important in the case of the state’s reservation rights in Kansas due to the sheer quantities of water involved. The reservation right may translate to large water quantities which dwarf downstream junior rights. To illustrate, consider the predicament of a small irrigator on a stream downstream from a reservoir. The state may have filed for a reservation right exceeding 100,000 acre-feet of water, and if the notice is filed with the Chief Engineer before the irrigator’s application for a permit is filed, the state will be senior to the irrigator. 101 This result occurs even though actual construction of the dam, storage of water by the state, and sale of the stored water by the state has not begun when the irrigator begins to irrigate under his appropriation right. During construction, the state would not likely enforce this priority. But after construction is completed, the small irrigator may have difficulty understanding how his water right is rendered worthless in times of drought due to the magnitude of the state’s reservation right. The irrigator’s right would be swallowed by the demands of the state’s right. It is even more disturbing to the irrigator when the state’s water lies idle in storage, is not sold to cities or industries, and is being used for recreational purposes, such as fishing and swimming. Yet Kansas law dictates this result.

There are several possible avenues for this aggrieved irrigator or other downstream junior appropriators to pursue in remedying the situation. One approach is for the irrigator to attempt to purchase stored water from the state under a long-term contract (these contracts are discussed in more detail in Section IV). An irrigator might be reluctant to enter into such a contract for the purchase of storage water, since the irrigator with an appropriation right is accustomed to using water at no cost, excepting his cost of the permit application, which varies according to the amount of water sought in the application, 102 and his capital and operation expenses.

Assuming this purchase approach is a feasible solution economically, the irrigator must address yet another problem. Since the Water Office has contracted with the Corps of Engineers for storage of water for “municipal and industrial” uses, the question arises whether an irrigator could purchase such water under a long term contract. Is irrigation an “industrial” use, farming being an industry? This issue arose in 1982 when a farm operation sought to purchase water in storage in Marion Reservoir. The Kansas Water Resources Board has defined “in-

101 Id. §§ 82a-1303, -1304 (Supp. 1983).
102 KAN. STAT. ANN. § 82a-708a (Supp. 1983).
dustrial use" in a rule and regulation as "any use of water by a person primarily for the production of goods, food, or fiber, or rendering a service of providing utility services and including any incidental uses."103 Arguably, this language is sufficiently broad to encompass irrigation, since the aim of irrigation is generally to increase crop yields. The Attorney General concluded, however, that such storage waters may not be used for irrigation.104 He based his opinion on two authorities: first, the federal Water Supply Act of 1958,105 which states that the water stored is for municipal or industrial use; second, the Kansas statutes, primarily the Water Plan. While the Attorney General's opinion is subject to some question, it is in accord with the views of the Corps of Engineers106 and will likely be followed by the Kansas Water Office and the Water Authority. Consequently, it is unlikely that these agencies will approve purchases of storage waters for irrigation purposes. However, an irrigator could resort to filing a declaratory judgment action in an attempt to obtain a more favorable ruling by a court.

A second method of attempting to solve the drought problem by the down-stream junior irrigator would be to find other existing rights along the stream, either upstream or downstream from the reservoir, and to purchase these rights.107 Since such a purchase would include the priority date of the purchased right, the irrigator could then become senior to the State. Although he must receive permission from the Chief Engineer to change the place of use, manner of use, and point of diversion of the purchased right to achieve this result, the Chief Engineer does not pass on the merits of the sale itself. Kansas law, however, does require the Chief Engineer to ensure that the public interest is not adversely affected and existing rights are not impaired by any changes.108

A third possibility would be to file for a permit to drill a well in the alluvium of the stream. While the permit granted would be even more junior than his existing right, he may in fact be able to pump sufficient amounts of water to meet his needs. The existence of the reservoir upstream often provides a more steady alluvial groundwater flow than otherwise.

A fourth suggestion would be to contact the state about the possibility of purchasing "surplus waters" from the state's storage. The Water Plan Storage Act allows the disposal of waters "not required to meet contract requirements."109 Such arrangements may only be for a term of one year or less and may not be for a quantity "in excess of 10% of the yield capability as computed pursuant to this section unless the governor has declared that an emergency exists which affects the public health, safety or welfare."110 Once again, irrigators generally do not want to pay for water as a commodity in and of itself. Moreover,

103 Kan. Admin. Regs. 98-5-1(m) (Supp. 1983). At the same time, the Chief Engineer's rules and regulations defined "industrial use" as follows: "The use of water in connection with the manufacture, production, transport or storage of products, or the use of water in connection with providing commercial services . . . ." Id. at 5-1-1(n) (Supp. 1983).
106 Letter from James J. Harmon, District Engineer, Tulsa District, Corps of Engineers, to Mr. J.H. Robinson, Chairman, Kansas Section, American Water Works Association (March 12, 1982).
107 See Peck, supra note 87, at 202, for a discussion of sale of water rights under Kansas law.
110 Id.
the state would not sell the water if the use will be irrigation since, as discussed in
the last paragraph, irrigation is not considered to be a municipal or industrial
use.

A fifth method of attack is to challenge the quantity of the state’s reservation
right. As stated earlier, the quantity is very important and it is possible that the
quantity has not been figured correctly. One could argue that the state miscalculated
the yield for the reservoir in question under section 1303 of the Kansas
Statutes Annotated, but the success of this argument depends upon an under-
standing of how the water Office and the Chief Engineer determine the quantity
of the reservation right.

E. Determining the Quantity of the Water Reservation Right

Section 1303 of the Water Plan Storage Act provides in a general way the
amount of the reservation right that can be sought by the state:

[T]he director . . . shall be authorized . . . to acquire . . . the right to
divert and store the waters of all streams flowing into the conservation
storage water supply capacity of the reservoirs . . . sufficient to insure a
yield of water from the reservoir for beneficial use through a drought hav-
ing a 2% chance of occurrence in any one year with the reservoir in
operation.\textsuperscript{111}

The “yield” of a reservoir is “the amount of water which can be supplied from
the reservoir in a specified interval of time.”\textsuperscript{112} The yield in section 1303 is actu-
ally a “safe” or “firm” yield which is defined as “the maximum quantity of water
which can be guaranteed during a critical dry period”\textsuperscript{113} or as “the rate of . . .
extraction . . . which can be maintained indefinitely . . . under specified condi-
tions of water-supply development.”\textsuperscript{114} This firm yield is “equal to the sum of
the usable storage in the reservoir and the usable inflow during the critical pe-
riod.”\textsuperscript{115} The phrase in section 1303 “through a drought having a 2% chance of
occurrence in any one year with the reservoir in operation” is the equivalent of
providing for sufficient water for a once-in-fifty-year drought.\textsuperscript{116}

Another way of expressing how the quantity of the reservation right is to be
figured is as follows: Assuming an inflow to a full reservoir from streams into,
and from precipitation onto, the reservoir that would exist during a drought so
severe it would occur on an average only once in fifty years, how much outflow
(yield) would be available to deplete the reservoir at the end of the drought? The
calculation concerning the drought has to include certain information: the in-
flow quantities both from the streams and from precipitation directly onto the
reservoir; the losses due to evaporation and seepage; the volume of storage in the
reservoir; and a period of time during which this drought is expected to occur.

\textsuperscript{111} Id. § 82a-1303.
\textsuperscript{112} R. LINSLEY & J. FRANZINI, WATER RESOURCES ENGINEERING 150 (1964).
\textsuperscript{113} Id.
\textsuperscript{114} S. BUTLER, ENGINEERING HYDROLOGY 342-43 (1957).
\textsuperscript{115} R. LINSLEY & J. FRANZINI, supra note 112, at 134.
\textsuperscript{116} See Furness, Kansas Streamflow Characteristics, Part 4, Storage Requirements to Sustain Gross Reservoir Outflow, 1962 KAN. WATER RESOURCES BOARD TECH. REP. NO. 4, at 20, where the author is referring to a fre-
cuency mass curve: “The actual gross outflow rate may fall below the indicated value one year out of
every 50 years on the average, or when expressed in probability terms, the outflow rate has a 2% chance of
being deficient in any one year. The conversion to probability terms is made by dividing years of recur-
rence into 100%; thus, a 20-year recurrence equals a 5% chance.”
As an over-simplified example of how yield is calculated, consider a fifty-gallon drum full of water with a hose mounted at the top of the drum. A discharge spout is located at the bottom of the drum. Assume that over a thirty day period, fifteen gallons would evaporate out of the top of the drum, and five gallons would be lost by seeping through some rust on the bottom. If an inflow of five gallons is assumed to occur each day, and one wished to calculate the daily yield over thirty days, one would multiply thirty days by the five gallons of daily inflow to get a total inflow of 150 gallons. To this add the fifty gallons initially in storage which results in a total of 200 gallons available. Subtracting out the fifteen gallons lost to evaporation and the five to seepage, if the remaining 180 gallons of water are taken out evenly over thirty days, six gallons/day would be the firm yield. Extracting exactly six gallons per day for thirty days will exhaust all the water in the drum as well as all of the inflow.

The same computation is required for the reservation storage right. The amount sought for the right is analogous to the six gallons that would be sustained daily over the period of time involved. The reservation right itself actually would be for fifty-six gallons, because the user must have the right to fill up the drum whenever it becomes empty. The quantity of the right is thus made up of two amounts: the yield and the volume of storage available. This hypothetical fifty-gallon drum example illustrates an important point. Even if the state inadvertently miscalculates the yield in the method shown below, such a determination may not help the aggrieved downstream junior irrigator described immediately above who has difficulty obtaining his water during drought periods. The reason is that the quantity of the reservation right is composed of both the yield and the storage volume; even if the yield calculation is in error as much as 50 percent or 75 percent (i.e., too high), the reservation right quantity will still usually be enormous because the storage volume can be huge relative to individual rights on the stream. The Clinton reservoir example illustrates this point. The yield for Clinton is 21,050 acre feet per year (after 100 years of sedimentation), while the storage right equals 132,750 acre feet per year.

Hydrologic yield calculations for a reservoir of course present a few complexities not shared by our fifty-gallon drum example. If the analogy to the drum were more precisely made, for example, the drum would not be full to begin with, since the typical Kansas reservoir has some storage devoted to flood control, and this storage must be kept empty to accommodate flood waters. The outflow pipe would not be at the bottom; some of the storage at elevations below the spillway is there to allow the building up of sediment over the years. Evaporation is not constant; it varies with weather conditions and with the surface area exposed to air, so the volume evaporated during fixed weather conditions would technically decrease as the elevation of the water surface goes down, since the surface area would be decreasing in the reservoir due to sloping land surface. Additionally, the non-uniformity of the slope of the land surface due to topography and to incoming streams would make both sedimentation and evaporation become extremely variable. These factors are considered when the Water Office makes its calculations to determine yield of a reservoir for a particular storage capacity in a reservoir. Also considered are existing water rights above and below the reservoir whose water requirements would lessen the inflow available for storage.
Of importance here is the meaning of "a drought having a 2% chance of occurrence." Methods have been developed to make these calculations.\textsuperscript{117} This Article will attempt to explain the method without the use of the charts, graphs, formulas, and calculations necessary when the yield is actually calculated for a specific reservoir. Some simple graphs, however, will help illustrate the process.

The concept of a required yield of a reservoir to sustain a given need of water is first used in the reservoir design stage to determine the size of a reservoir. If, for example, the designer of the reservoir knows the water demands, he can use this information to help determine how much storage to build into a reservoir. The converse is also true: once the reservoir is constructed and the volume of storage is known, hydrologists can calculate the yield that such an actual storage volume will sustain under certain drought conditions. This is done by drawing a "mass curve,"\textsuperscript{118} which shows the total cumulative inflow as a function of time. See Figure 3. On such a mass curve, the greater the slope of the curve the higher the inflow into the reservoir; where the curve is flatter, the flow is lower. "Tangents are drawn to the high points of the mass curve"\textsuperscript{119} such that the difference between the mass curve and lines drawn tangent to the high points of the mass curve is never greater than the specified reservoir capacity. The slope of a tangent line, expressed in acre-feet/year, is the firm yield attainable from that given storage for the low flow period under the tangent line.

For example, for the hypothetical mass curve shown in Figure 3, a storage of 100,000 acre feet would provide a firm yield of approximately 28,000 acre feet per year through the drought that occurred between 1950 and 1958, while the same storage would provide a firm yield of approximately 52,000 acre feet per year through the drought of 1961 to 1965. Thus, the firm yield for this reservoir (from the data presented) is only 28,000 acre feet per year. If more than this annual amount were released from the reservoir, the reservoir would run dry before the end of the 1950-58 drought, which is the more severe of the two droughts shown on the mass curve.

Section 1303 of the Water Plan Storage Act,\textsuperscript{120} however, does not specify a certain drought or a specific term of years through which the drought must be assumed to last; it says a "yield . . . through a drought having a 2% chance of occurrence in any one year" or a once-in-fifty-year drought. "Drought" refers to the minima of discharges over a period, not to situations in which a stream is unable to meet demands placed upon it. Thus, a one day drought flow in any year is the minimum daily flow for that year; a thirty-day drought is the thirty-day period during any one year having the lowest average discharge (i.e., the minimum average flow).\textsuperscript{121} If data were available for many years, such data could be used to make a mass curve similar to the one in Figure 3 for a given watershed draining into a reservoir. However, such long-time data do not exist, so the Kansas Water Resources Board had to use statistical methods to generate


\textsuperscript{118} See Smith & Steps, supra note 117; Furness, supra note 116. See also R. Linsley & J. Franzini, supra note 112, at 154-57.

\textsuperscript{119} R. Linsley & J. Franzini, supra note 112, at 156.


\textsuperscript{121} See Smith & Steps, supra note 117, at 18.
Figure 3. Hypothetical Mass Curve for a Hypothetical Reservoir having 100,000 acre feet Storage Capacity.

the data. The method used to determine the conditions of a drought with a 2% severity is as follows: First, a low-flow frequency curve is constructed for the watershed in question, using existing historical data. Low flow data for periods of from one day to twelve consecutive months for many rivers and streams in Kansas are available, but since actual data for periods of 50 to 100 years are not available, the points for these periods must be extrapolated from existing data for shorter periods.

Figure 4 shows that for a given frequency of occurrence the average low flow in a given watershed increases as the period of time increases over which the flow is determined. For example, over twelve months, the average low flow is more than over six months, so the curves for longer periods are above those for shorter periods. The rarer the event (i.e., the greater the recurrence interval), the lower the average flow for any duration. For example, the lowest flow occurring once in two years is not as low (severe) as the lowest flow occurring once in fifty years. So each of the curves slope downward and to the right. Any point of a curve represents the average low flow over the period shown on the curve. Point A indicates the lowest average flow over a six-month period that would be expected to occur only once in five years. Point B indicates the lowest average flow over a six-month period that would be expected to occur only once in fifty years.

The second step is to make a table of data from the two percent or once-in-fifty-year occurrences from Figure 4. This table, shown as Figure 5, translates the two percent chance flows from Figure 4 (shown as squares and numbered 1 through 5) into total volumes for the periods indicated. Thus, for a drought
lasting ninety-six months (eight years), with the lowest eight-year flow found once in fifty years, the total volume of water available is 228,096 acre feet. This figure is derived by multiplying ninety-six months times thirty days per month to obtain 2880 days; and by multiplying 2880 days by forty cubic feet per second (point 1, Figure 4), and that product by 1.98 acre feet per day, which is the volume of water accumulated by a flow rate of one cubic foot per second over one day. For forty-eight months, the amount is 76,982 acre feet, and so on.

**Figure 5. Total 2%-chance Flow over Drought Periods for Hypothetical Watershed**

<table>
<thead>
<tr>
<th>Point</th>
<th>Drought (mo.)</th>
<th>Duration (days)</th>
<th>Avg. Discharge, cf/s (from Figure 4.)</th>
<th>Total Volume of Discharge, a.f.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>96</td>
<td>2880</td>
<td>40</td>
<td>228,096</td>
</tr>
<tr>
<td>2</td>
<td>48</td>
<td>1440</td>
<td>27</td>
<td>76,982</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>720</td>
<td>20</td>
<td>28,512</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>360</td>
<td>10</td>
<td>7,128</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>180</td>
<td>2</td>
<td>713</td>
</tr>
</tbody>
</table>

Third, the volumes from the chart in step two are plotted against time to obtain a frequency mass curve shown in Figure 6, which is similar to Figure 3. While Figure 3 represented actual cumulative flows for a given reservoir, Figure 6 represents a hypothetical mass curve of accumulated natural inflow of fifty-year droughts of varying duration. Each point on this curved line represents the amount of inflow available for the drought duration indicated. Next, on the same figure, the usable reservoir storage in acre feet (here, hypothetically 40,000 acre-feet) is plotted above the mass curve in such a way that each point on the upper dotted curve indicates the total amount of water available in acre feet for the time duration indicated on the abscissa—the total thus represents an amount from the inflow and an amount from storage. A line is then drawn from the origin of the graph tangent to the upper curve. The point at which this line is tangent represents the maximum vertical difference existing between the lower curve, which represents the volume delivered by the stream, and the tangent line, which represents the yield or volume required. The slope of this tangent line is the yield that can be realized for the specific reservoir throughout the fifty-year drought.

What do the lines on Figure 6 show? The lower curve shows the amount of water available from inflow. The top dotted line shows the total water available, made up of water from inflow and water from storage. The tangent line shows the yield from the reservoir. At any given point on the tangent line one can check to see how much water is derived from inflow and how much storage must provide. At point A, for example, the yield is made up of 15,000 acre feet from
Figure 6. Determining Yield from Inflows and Storage

inflow and 25,000 acre feet from storage; thus the system does not need all the storage. At point B, tangent to the top line, the production of that water yield requires all the inflow and all the storage. Point C is where the yield is again made up of inflow and only part of the storage available.

The “critical” duration of the fifty-year drought conditions is, therefore, built into the procedure for calculating the yield. Based on the data, the yield calculations will show the yield during the worst possible (critical) time duration. If the drought conditions were to last a shorter period than this worst duration, the reservoir would theoretically start to refill after the shorter period. If the drought conditions were to last a longer period than this worst duration, the reservoir will likewise begin to refill because, according to the frequency data, the rate of inflow will begin to increase after this critical duration.
F. Other Legal Issues Regarding Reservation Rights

1. Could Reservation Rights be Condemned?123

As noted earlier, while an appropriation right is by definition a "real property right, appurtenant to"124 land to which it attaches, a reservation right is not so defined. The reservation right acquires its stature by a two-step process. The first step is the state's assurance given to the federal government that it has a need for present and future water supply. Federal law mandates this assurance before the federal entity can build the supply storage into a given project. The assurance is then embodied in a contract with the federal government in which the state agrees to pay the federal government for the storage, and the federal government grants the state the "right to utilize . . . storage space" in the project.125 The second step is for the state entity, here the Kansas Water Office, to file for a reservation right from the Chief Engineer. This right confers on the Water Office the right to divert and store a given quantity of water in the storage space.

This reservation right, consisting of a contract for space with the federal government and a right to divert and store water from the Chief Engineer, is probably not strictly a real property right. It has some aspects of real property, however, since it consists of the utilization of a given quantum of air space within a geographic "tub," the boundaries of which can be described similarly to the way other real property is described. It is perhaps closest in nature to air rights or to ownership of units in a high rise condominium. Whether or not it is a real property right is not crucial to deciding whether it can be condemned, since rights other than real property rights can be condemned.126 The "power of eminent domain extends to personal property . . . [and] to intangibles and incorporeal rights, such as contracts, . . . easements . . . and choses in action."127 If the reservation right were likened to a water right, since it involves the diversion and storage of water, it would follow that it could be condemned, since water rights are generally subject to condemnation.128

The federal government is the only governmental authority that could condemn the property. The general rule is that property being devoted to a public use cannot be taken for another public use unless specifically authorized by statute.129 The general rule has application where it is another state agency that would seek to obtain the storage space; that agency could not do so without legislative approval. No Kansas statutes allow one agency to take a reservation right from the Kansas Water Office. This rule, however, would probably not apply to the federal government if it chose to take the storage space and devote it to a

123 A more timely question is different but related: Could the State of Kansas purchase storage now held by the United States? Preliminary discussions are being held now between the Kansas Water Office and the Corps of Engineers regarding this possibility and the attendant costs associated with such a purchase.
125 See supra note 73.
126 See, e.g., City of Oakland v. Oakland Raiders, 32 Cal. 3d 60, 646 P.2d 835, 183 Cal. Rptr. 673 (1982), in which the California Supreme Court upheld the right of a city to condemn a professional football team under a statute that allows the condemnation of "any property." See generally 26 Am. Jur. 2d Eminent Domain §§ 73-96 (1966).
128 Id. § 87.
129 Id. § 88.
federal purpose, as long as that purpose was within its constitutional powers. The United States Supreme Court lent support for this proposition in the 1941 case of Oklahoma v. Guy F. Atkinson Co., which involved the construction by the Corps of Engineers of a multipurpose reservoir on a non-navigable tributary of the Mississippi River. The State of Oklahoma sought to enjoin the construction and the condemnation of state-owned property used by the state for school purposes, a prison farm, highways and bridges. The Supreme Court upheld the federal government's power. Regarding the condemnation issue, the Court stated:

Since the construction of this dam and reservoir is a valid exercise by Congress of its commerce power, there is no interference with the sovereignty of the state . . . . The fact that land is owned by the state is no barrier to its condemnation by the United States . . . . And the suggestion that this project interferes with the state's own program for water development and conservation is likewise of no avail. That program must bow before the 'superior power' of Congress.\(^{131}\)

Application of these principles to a water reservation right indicates that if the Corps of Engineers decided after constructing a reservoir and devoting part of the storage to water supply that it wanted more storage for flood control or other purposes, it could condemn the storage space held by the state.

What if the federal government sought the space to store waters for improvement of navigation? The above analysis advanced in Atkinson suggests that such a condemnation would be permissible. But would the government be required to pay damages to the state? At least one older Supreme Court decision, United States v. Rand,\(^{132}\) held that the federal government, in condemning riparian land, was not constitutionally required to compensate the riparian landowner for the increment of value attributed to the land's location by a navigable river. The Rand court reasoned that the government under the commerce clause holds a "navigational servitude" giving it broad regulatory powers over the water. Thus, the riparian owner possessed no proprietary rights to the waters despite the land's proximity to the river.

It is doubtful whether the no-compensation rule in Rand would apply to a water reservation right condemnation. In this circumstance the state of Kansas is

\(^{130}\) 313 U.S. 508 (1941).

\(^{131}\) Id. at 534-35 (citations omitted). In a later but less closely related case, Minnesota v. United States, 125 F.2d 636 (1942), the federal government sought to condemn land owned by the State of Minnesota and used by the state for game propagation and protection and for public shooting grounds. The state had given the Chippawa Indians the exclusive right to harvest wild rice on a lake situated on this land. The United States sought to acquire the lands for the purpose of creating a "Wild Rice Lake Indian Reserve" out of the area. The court of appeals affirmed the district court's holding that the federal government had the power to condemn state owned property already devoted to public use. The court stated:

We are of the opinion that the United States has the power to acquire by condemnation lands for use as an Indian Reservation which are suitable for that purpose, although the lands belong to a State and although the State has devoted them to a public use. . . . Neither the fact that the State owns the lands nor the fact that the taking of them will interfere with the State's program for the use and development of the area can prevent the United States from acquiring the lands. . . . There is no interference with the State's sovereignty by the United States if the taking of the lands represents a valid exercise of congressional power.

\(^{132}\) Id. at 639-40 (citations omitted).

Other than these cases, there is not much authority for the general proposition that the federal government can condemn state property, but there are dicta to that effect. See Annot., 91 L. Ed. 221, 234-35 (1947).

\(^{130}\) 389 U.S. 121 (1967).
not a riparian owner in the traditional sense; arguably, the state does not even own a true real property interest; the state is not a private land owner; and finally, the state has purchased or is purchasing the space from the federal government itself, the proposed condemnor. Thus, if the federal government condemned the state's reservation storage right, the state would be entitled to the value of that right.

Moreover, Congress diminished the precedential or even persuasive value of the Rand s rule by an amendment to the Rivers and Harbors and Flood Control Act of 1970.\footnote{Act of Dec. 31, 1970, Pub. L. No. 91-611, 84 Stat. 1821 (codified at 33 U.S.C. § 595a (1976)).} The amended section now provides:

In all cases where real property shall be taken by the United States for the public use in connection with any improvement of rivers . . . of the United States, and in all condemnation proceedings by the United States to acquire lands or easements for such improvements, the compensation to be paid for real property taken by the United States above the normal high water mark of navigable waters of the United States shall be the fair market value of such real property based upon all uses to which such real property may reasonably be put . . . .

What significance has this provision to a water reservation right condemnation? Congress directed this amendment, section 111, to the specific situation in which private landowners with riparian lands on navigable rivers were not being fully compensated, and it sought to correct the seeming injustice represented by Rand s. In Rand s, the Court granted the private riparian owner an award of only 1/5 the value the riparian land would have commanded if the appraiser had considered its added value as a port site.

The amendment has been construed in few cases since its enactment. In one case, United States v. 967,905 Acres of Land,\footnote{447 F.2d 764 (1971).} it was construed broadly. There the federal government was condemning land around a navigable lake in Minnesota. The United States Forest Service was promulgating regulations designed to curtail commercial operations on the lake, and to that end, it also was taking riparian lands. Defendants owned land and improvements and conducted commercial fishing operations on the lake. When the federal government tried to invoke the Rand s doctrine to limit its payment of damages, the court held that section 111 applied "to all acquisitions of land . . . and . . . to the determination of just compensation in all condemnation suits."\footnote{Fed. at 771.} Yet, applying section 111 to

\begin{flushleft}
\footnote{The government argues that the 'improvements' of rivers . . . . referred to in section 111 are limited to 'conventional' improvements such as the construction of locks and dams. We disagree.

Regardless of the limitations to which the Government's powers with respect to navigable waters may be subject, it is clear that those powers are broad, and that the public interests which those powers are designed to serve are also broad. 

Those interests are not limited to the promotion or fostering of trade and commerce . . . . or to the control or prevention of destructive floods. They include, in our estimation, those interests which are aesthetic, ecological, and environmental as well as those which are economic and commercial.

We think that the . . . . Government may properly conclude that the encroachment of civilization and commercial enterprise upon a wilderness area and the navigable waters found therein militates against the broad public interests that have been mentioned, and that}

As we construe section 111, it is not limited to the particular projects authorized in other sections of the Act but extends to all acquisitions of land by the Government . . . . and . . . to the determination of just compensation in all condemnation suits . . . .
a water reservation storage right is a difficult task since it requires one to characterize the state’s reservation right as a “real property” right. Moreover, section 111 seems to apply only to takings of land on navigable waters. The rivers in Kansas where the reservoirs are located are not navigable rivers; they are non-navigable tributaries of navigable rivers. On the other hand, if a court reads *Rand* to apply to this situation, section 111 should also apply to protect the state. This is particularly true when the state has purchased with cash from the federal government the very interest sought by the federal government.

2. Must the Kansas Water Office File for all the Storage Space that is Available?

The governing statute involved in this question is section 82a-1303: “[T]he director . . . shall be authorized . . . to acquire . . . the right to divert and store the waters . . . sufficient to insure a yield of water. . . .”¹³⁶ Previously discussed above is the term “yield” and how it is calculated.¹³⁷ The statute does not give the Director the power to take less than the quantity necessary to insure a yield throughout a certain severity of drought. The statute does not empower the Director to take “up to” a certain quantity. If the Director acts at all, it appears the Director must take the statutorily prescribed amount.

From a state law standpoint, the Director is not prejudiced by taking the total amount allowed by the statute. In fact, as noted above, the filing of the notice to take the water reservation right locks in the priority date of the reservation right. Therefore, it is in the best interest of the state and the ultimate purchasers of the water from storage, if not of the downstream or upstream later appropriators, for the state to file as early as possible for as much water as statutorily permitted. The Director can thus lock in a certain quantity for the reservation right at an early date, even though the federal government has not yet constructed the reservoir and the state has not yet sold the water from storage.

From a federal law standpoint, the Kansas Water Office would want to take the maximum amount of the reservation right. There are, however, some economic factors to consider in deciding when to put the water reserved for municipal and industrial water supply to use.¹³⁸

3. Can the Water Office give up Storage Space that holds Unsold Water?

Conceivably, the state could eventually find itself in a position of wanting to

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¹³⁷ *See supra* text accompanying notes 111-22.

> And provided further, That the entire amount of the construction costs, including interest during construction, allocated to water supply shall be repaid within the life of the project but in no event to exceed fifty years after the project is first used for the storage of water for water supply purposes, except that (1) no payment need be made with respect to storage for further water supply until such supply is first used, and (2) no interest shall be charged on such cost until such supply is first used, but in no case shall the interest-free period exceed ten years.
give up part of its reservation right. For instance, it could become clear that the state would never sell the stored water. Could the state legally give up a portion of its reservation right, and if so, is there any reason to do so?  

The Water Plan Storage Act has no provision for loss of the state’s water reservation right for failure to use (sell) the water in storage.\textsuperscript{139} Nor is there any provision for turning back such stored water to the public for more general use by appropriators. If the Water Office wished to relinquish a portion of its water in this manner, arguably it would need clear statutory authority. Alternatively, one could cite the fact that the state has held this water in public trust for the cities and industries, and therefore it could not be sold to private individuals. This theory has been recognized by a few states and by federal law.\textsuperscript{140} A counter argument could also be made on behalf of the general population that no public trust is breached by this action: in turning the water and the storage space back to the public as a whole and making the water part of the unappropriated water of a river or stream, the state is opening it up for use by more and different people. The stored water may be used only for municipal and industrial use; river water may be used for anything that is a “beneficial use.”

Regardless of whether the state could legally give up the stored water, there is little reason to do so. The state’s payment obligation to the federal government continues irrespective of whether the state in fact uses the water. Since the state repays the federal government with the money generated by this stored water, logically the state would want to retain the capacity to sell that water if necessary. Furthermore, other users of the stored water benefit while the water is in the reservoir—the fishermen, boaters, campers and other recreational users.

If the state, rather than giving up the space, sought to sell or otherwise assign the space to some other entity, the contract with the United States would be one constraint. It provides that no such transfer can be made without the approval of the Secretary of the Army.\textsuperscript{141}

4. Can Water Quality Releases be Protected?

\textit{a. Introduction: the problem stated.} When a reservoir is planned, authorized, and built, it may have several functions. Corps of Engineers’ reservoirs all have flood control as a function, while Bureau of Reclamation reservoirs usually have irrigation as a function. Since most reservoirs built by either agency are multipurpose in scope, they may have additional functions such as conservation supply for municipal and industrial users,\textsuperscript{142} navigation, power, water quality control, recreation, fish and wildlife, and streamflow regulation. Clinton Reservoir, for example, includes “streamflow regulation” and “fish and wildlife” as additional state water plan purposes.\textsuperscript{143} Other projects like El Dorado Reservoir and To-

\textsuperscript{139} See supra text accompanying note 94.
\textsuperscript{141} See, e.g., Wakarusa River Agreement, supra note 68, Article 9, at 9.
\textsuperscript{143} KAN. STAT. ANN. § 82a-938 (Supp. 1982); \textit{SEVENTH REPORT TO THE GOVERNOR}, supra note 64, at 43. The Wakarusa River Agreement for the storage between the Corps of Engineers and the Kansas Water Office, see supra note 68, shows the purpose as “downstream fishery” in Exhibit A, but states in Article 1 Water Supply Storge, para. b, that “the United States shall retain the right to the use of the
ronto Reservoir have water quality listed as an express purpose.

A problem has arisen when the Corps of Engineers has released water from water quality storage as authorized by law and by the operating plan for a reservoir: these waters have not been left in the stream for that purpose. They have sometimes been taken by downstream appropriators, especially irrigators and municipalities. Although these appropriators have water rights from the stream under Kansas law, the question remains whether they can legally pump this water which the Corps of Engineers releases from reservoir storage for water quality enhancement. The Chief Engineer's policy on this matter has been that, absent an agreement between the Corps of Engineers and the State of Kansas providing for protection of releases, downstream appropriators may take whatever water they find in the stream. But no consensus exists on a solution to this issue by the Kansas Water Office, the Corps of Engineers, and the Chief Engineer.

It is helpful before dealing with this question to contrast this problem with that of releases for water supply (municipal or industrial) under a contract with the Kansas Water Office. Here, if water is released, the Chief Engineer appears to be duty-bound to protect the persons requesting the releases from interfering appropriators who could capture the water before it arrives at the destination. Section 82a-1314 of the Kansas Statutes Annotated states in part:

Whenever a person, who has a contract . . . wishes to make a withdrawal of water, such person shall so advise the director. Whenever the bed of a watercourse is to be used to carry waters . . . the director shall inform the chief engineer . . . . The person for whom waters are released may conduct such waters into and along any watercourse and may withdraw . . . the same . . . without regard to holders of water rights to the waters of the watercourse . . . . The provisions of K.S.A. 82a-706b to 82a-706c . . . shall apply to water so released. In addition to such authority and duties, the chief engineer shall protect and shall have authority to enter into agreements necessary to protect any release of water.\textsuperscript{144}

Sections 82a-706b to 706e\textsuperscript{145} referred to above are provisions in the Water Appropriation Act that give the Chief Engineer the authority and duty to protect holders of water rights. Of direct importance here is part of 706b:

It shall be unlawful for any person to prevent, by diversion or otherwise, any waters of this state from moving to a person having a prior right to use the same, or for any person without an agreement with the state of Kansas to divert or take any water that has been released from storage under authority of the state of Kansas or that has been released from storage pursuant to an agreement between the state and federal government. Upon making a determination of an unlawful diversion the chief engineer . . . shall direct that the headgates . . . of any ditch . . . be closed . . . to secure water to the person having the prior right to its use, or to secure water for the purpose for which it was released from storage under authority of the state of Kansas or pursuant to an agreement be-

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These sections require the Chief Engineer to protect any release from water supply storage under which the state has a reservation right, where that release is made for municipal or industrial purposes under a contract with the state.

The issue is more complicated, however, when releases from storage for water quality purposes are involved. Here, it is unclear whether the state has, or can obtain, any water right for water quality releases. It is equally uncertain whether the federal government has a water right for those releases, and if so, what the nature of that right is; or if the federal government possesses no such right, what the federal government has that can be protected under federal or state law. Additional questions are whether an agreement between the state and the federal government could somehow achieve the desired protection of the releases, and if so, what agency in the state could be a party to that agreement; and whether there is some mechanism by which under current or amended state law, these releases, which both the federal and state governments desire, can be protected. Before discussing possible solutions to this last issue, it is insightful to examine a brief history of the problem.

b. History. Correspondence between federal and state officials that predates construction and authorization of many of the reservoirs provides evidence that protection of water quality releases has been a concern at the state and federal levels. A Corps of Engineers official raised the issue in a March 1959 letter to then Chief Engineer Smrha:

[T]he Corps . . . desires that appropriate steps be taken to prevent such encroachment. Accordingly, assurances are requested, before construction of John Redmond Reservoir is started, guaranteeing that water rights would not be granted in or below the reservoir that would encroach on the water needed for operation of the pollution abatement function of the authorized project.

To which Smrha responded in June of that year:

Administration of State law as it applies to these matters is assigned to this office. . . . [T]his office can give you assurances that every effort will be made to administer water rights along the Neosho River below John Redmond Reservoir to the end that at times of minimum flow, appropriation rights will not encroach upon vested rights.

Apparently, the Corps was satisfied, as shown in a response two months later:

The discussion of the Kansas water law and the administration of water rights under that law indicate that the stream flows necessary for pollution abatement below Federal reservoir projects on the stream can be maintained.

In the years between 1959 and 1974, when the problem resurfaced, the Kansas legislature adopted three important water-related laws: the State Water Plan

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146 KAN. STAT. ANN. § 82a-706b (1977).
Act\textsuperscript{150} in 1963, the Water Plan itself in 1965,\textsuperscript{151} and the State Water Plan Storage Act in 1974.\textsuperscript{152}

In 1974, the Kansas Water Resources Board began to act under the new Water Plan Storage Act by submitting notices to the Chief Engineer for storage. However, the Board did not ask for the amount of storage allowed the Board under the contract with the Corps of Engineers\textsuperscript{153}—\textit{i.e.}, the proportion of the total storage represented by the water supply storage for municipal and industrial use. Instead, the Board served notice to the Chief Engineer that it was seeking the total volume of storage in the conservation pool, which would include both the water supply storage given the state under the Corps contract and the other storage reserved by the federal government for water quality or for other legitimate purposes. For example, with Clinton Reservoir the Board sought a right to store water in the 129,400 acre-feet capacity (pre-sediment) storage, while the state’s share of the storage volume under the contract with the Corps of Engineers would be only 104,555 acre-feet (pre-sediment) (or 89,200 after consideration of 100 years of sediment deposit).\textsuperscript{154}

Late in 1975, the Chief Engineer returned the notices for correction,\textsuperscript{155} claiming that the water supply capacity listed in the notice did not agree with the amount stated in the Board’s 1975 Annual Report to the Governor and Legislature on the Water Supply and Storage Program.\textsuperscript{156} The Chief Engineer requested a copy of the signed agreement with the Corps of Engineers stipulating the conservation water supply capacity committed to the state.

Before the scenario of events is further explained, it should be noted what the Board was attempting to achieve and why it sought to achieve it. The Corps of Engineers had not, nor has it ever, filed with the Chief Engineer for a water right for any purpose. Whether the Corps has, notwithstanding this omission, a cognizable water right will be briefly discussed in another section of this article.\textsuperscript{157} But if the Corps has no right shown in the records of the Chief Engineer’s office, how can water quality releases be protected from downstream appropriators intent on taking any water flowing by their diversion points? One way to protect them against downstream as well as upstream appropriators would be to piggyback the federal “right” onto the state’s water reservation right for water supply. If the Board could obtain a right to divert and store not only the amount it needed to sustain a yield throughout a two percent chance drought, but also the amount needed by the Corps for water quality or stream flow enhancement, then the Corps’ right could possibly be recognized indirectly under Kansas law through the Board acting as an agent of the Corps.


\textsuperscript{153} See supra text accompanying notes 62-86.

\textsuperscript{154} Notice for Acquisition of Water Reservation Right to Divert and Store Water Under Authority of the State Water Plan Storage Act of 1974, submitted May 13, 1974, to the Chief Engineer.

\textsuperscript{155} Letter from Guy Gibson, Chief Engineer, Division of Water Resources, Kansas Board of Agriculture, to Keith Krause, Executive Director, Kansas Water Resources Board (Dec. 30, 1975).

\textsuperscript{156} Kansas Water Resources Board, Kansas State Water Plan—Water Supply & Storage Program—the Second Annual Report to the Governor & Legislature 1975.

\textsuperscript{157} See infra notes 240-67 and accompanying text.
In July 1978, an actual problem arose that highlighted the issue. On various
days, the Corps released water from Toronto Reservoir for water quality
enhancement purposes, but the seven to nine irrigation systems between the point
of release and the City of Altoona diverted the water, leaving less than ten per-
cent of the water released that would reach Altoona. The Corps raised the issue
with the Board, asserting that if these releases were without protection against
incursion by the irrigators, this would question the authority of the Corps to
continue such releases under the guise of water quality control.

Despite these problems, an agreement apparently existed in 1979 between the
Chief Engineer and the Executive Director of the Board that the Chief Engineer
would not accept a water reservation right for storage space other than that
shown in a contract with the Corps. On November 16, 1979, the Chief Engi-
neer approved the newly submitted notice for acquisition of a water reservation
right for Clinton Reservoir, this time for a storage space of 103,200 acre-feet,
which was the state's 80.8 percent share of the total volume in the reservoir for
conservation purposes.

Two years later, the Board submitted amended notices for acquisition of
rights, once again claiming 100 percent of the total storage space in the reser-
voirs. In the cover letter accompanying the notices, the new Executive Direc-
tor of the Board argued that the state required the larger storage because all the
storage water must be protected by the reservation right and that the Chief Engi-
neer had to comply with section 82a-1304 which required him to approve the
notice if the Board met its requirements under the Act. The Executive Director
also claimed that section 1304 applies to both water supply and water quality
storages, since “streamflow regulation” was considered a beneficial purpose for
which water could be used under section 82a-927, and that the State Water Plan
included water quality improvement as a state objective.

According to the Chief Engineer's reading of section 82a-1303, the Water Stor-
age Act does not permit the Kansas Water Office to obtain a right to store water

\footnotesize
158 Letter from Weldon M. Gamel, Chief, Engineering Division, U.S. Corps of Engineers, Tulsa, to

159 Letter from Guy E. Gibson, Chief Engineer, Division of Water Resources, Kansas Board of Agricul-
ture, to Francine Neubauer, Executive Director, Water Resources Board (July 7, 1981), which states in
part:

In that letter you first state that you disagree that your filing reservation rights on
the entire capacity of each reservoir represents a change in policy. In 1979, I reached an agree-
ment with Jim Power, the former Executive Director of the Water Resources Board, as to
the extent water reservation rights would be approved on each of the reservoirs. This policy
has been followed from the time of our agreement until the present when we have received
these letters from you during the last month.

160 Notice for Acquisition of Water Reservation Right to Divert and Store Water in Clinton Reservoir
Under Authority of the State Water Plan Storage Act, Original Notice filed May 13, 1974, File No. 22.390-
AR-8, approved Nov. 16, 1979.

161 Letter from Francine Neubauer, Executive Director, Kansas Water Resources Board, to Guy E.
Gibson, Chief Engineer-Director, Division of Water Resources, Kansas Board of Agriculture (May 7,

162 Prior to this, in 1980, the Board supported a proposed amendment to the Chief Engineer's Rules and
Regulations to include "streamflow regulation" as a beneficial use under § 5-1-1(f), and to define that term
as "the use of water from conservation storage in a publicly financed reservoir to maintain a flow of water
in a watercourse or to maintain or improve water quality in a watercourse." The amendment was not
adopted. See Statement Regarding Proposed Rules and Regulations for Administration of the Water Approp-
riation Act in behalf of Francine Neubauer, Executive Director, Kansas Water Resources Board,
(Oct. 15, 1980).
for water supply and for water quality enhancement or streamflow maintenance. A proposed amendment to that section in the 1981 session of the legislature would have made it clear that the Water Office could obtain storage rights for more than water supply purposes. Senate Bill 194 would have amended 1303 to give the Office the power to acquire a right in the conservation water supply capacity sufficient to insure a yield through a two percent chance drought and the right to divert and store the waters of all streams flowing into the water quality supply capacity of the reservoirs named in the state water plan sufficient to insure an adequate yield of water from the reservoir for the maintenance and protection of the water quality of any stream flowing from the reservoir as determined by the board. 163

The bill was passed by the Senate but ultimately failed because it was not placed on the House calendar.

After this attempted amendment in May 1981, the Board submitted amended notices to the Chief Engineer, seeking additional water storage capacity. He immediately responded, explaining that he would hold the applications in abeyance. Since the legislature had recently reorganized the Board by creating the Kansas Water Office and the Kansas Water Authority, the Chief Engineer wanted to wait “until those changes are completed within your office so the policy of the new board and personnel may be ascertained before any consideration is given to making the significant policy changes that you have requested.” 164 He further stated that the revised applications represented a significant change in the current policy.

The Board requested an attorney general's opinion on the propriety of the Chief Engineer's action in rejecting notices for reservation storage rights where the storage requested was more than the space allowed the state under the Corps contract. In an opinion dated June 11, 1981, the Attorney General supported the Chief Engineer. 165 The opinion stated that the Chief Engineer could return a notice for revision if it did not comply with statutory requirements. For example, he can return it if the land description of the point of diversion is incorrect. The Chief Engineer cannot, however, reduce the water right simply because, in his opinion, the amount reserved is too large, even though he does have the implied power to require the reservation right to comply with the scope of the Act. The Act, section 1303, includes only those waters “in conservation storage water supply capacity.” Furthermore, state law limits the Board to entering into written contracts for withdrawal from water supply capacity. 166 The Attorney General thus concluded that a reservation right could be obtained only for water supply and not for water quality purposes.

In October 1981, the Chief Engineer returned the amended notices to the Board, announcing he had no authority to amend the rights. 167 If the Board

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164 Letters from Guy E. Gibson, Chief Engineer-Director, Division of Water Resources, State Board of Agriculture, to Francine Neubauer, Executive Director, Kansas Water Resources Board (June 5 and 8, 1981).
166 KAN. STAT. ANN. § 82a-1305 (1978).
167 Letter from Guy E. Gibson, Chief Engineer-Director, Division of Water Resources, State Board of Agriculture, to Francine Neubauer, Executive Director, Kansas Water Resources Board (Oct. 14, 1981).
wanted to file notice for the increased quantity, it could file for a new water reservation right, the Chief Engineer reasoned. This new right would not have the earlier priority date held by the right for supply storage. The Chief Engineer reminded the Board, however, that there was an administrative policy agreed upon between the former executive director of the Board and himself that would not allow him to accept a notice for a right other than that found in a contract with the Corps.  

The Attorney General’s opinion, however, did not set the matter to rest. Section 82a-706b of the Water Appropriation Act still gave the Chief Engineer the power and duty to protect releases from storage pursuant to an agreement between the state and federal government.” Were such agreements already in existence? If not, who could negotiate with the Federal Government for such an agreement? Arguably, the contract between the Board and the Corps of Engineers for storage space in each reservoir fell within the language of section 82a-706b. This was the argument presented by a January 1981 attorney’s opinion to a member of the staff of the Board, but the opinion proceeded to recognize that the question essentially remained unsettled. The Chief Engineer assumed a contrary position. He believed that the existing contracts for storage did not provide the needed authority for him to act under section 82a-706b. What is apparently needed is a new agreement between a state agency and the Corps of Engineers. According to an Attorney General’s opinion, the proper agency to negotiate such an agreement is the Kansas Water Office and not the Chief Engineer, even though through the years, the Chief Engineer has entered into sev-

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168 See supra note 159 and accompanying text.
170 If the operating plan for the project provides for the use of water from storage space in the project, space retained by the United States pursuant to an agreement with . . . Kansas, for the purpose of maintaining minimum streamflow regulation at determined points downstream, that use appears to be a legally enforceable contractual right, which the Chief Engineer is authorized to enforce and protect under K.S.A. 82a-706b from unauthorized diversion.


171 Releases by the United States from storage which it retains under the contractual language quoted above [82a-932] are made under its own authority, and not under the authority of the State of Kansas. It is less clear whether such releases are made “from storage pursuant to an agreement between the state and federal government.” The releases are made presumptively under the operating plan for the project, as determined unilaterally by the United States, from storage for the use of which it retains the right under the agreement between the State of Kansas and the United States, whereby the former has purchased storage space in the project. The storage from which the releases in question are made is storage which the United States retains under an agreement with the State of Kansas. The releases are made unilaterally by the United States, and not pursuant to an agreement between the State of Kansas and the United States, but these releases are made from storage space to the use of which the United States has a contractual right under its agreement with the state. That agreement, in my judgment, gives the United States a legally enforceable and protectable right to the use of the waters in the storage space described in the quoted contractual language. Diversion of those waters from the storage space itself would clearly be unlawful by any person not having permission from the United States to do so. Unauthorized diversion of those same waters from a use therefor, as set forth in the operating plan for the project, appears to be equally unlawful, and a diversion which the Chief Engineer is authorized to take certain steps to forestall under KAN. STAT. ANN. § 82a-706b.

172 Op. Kan. Att'y Gen. No. 82-201 (1982), addressed to Allyn O. Lockner, Director, Kansas Water Office. The Attorney General finds authority for the Kansas Water Office to so act under KAN. STAT. ANN. §§ 82a-915 and -932 (1977), and 74-2615 (Supp. 1981), which give the Office broad authority to negotiate with the federal government, although they do not mention this specific problem. The Chief
eral agreements with the Corps of Engineers concerning bypassing water through reservoirs.\textsuperscript{173} Apparently, all interested government officials desire the water quality releases protected, but the method of protection has not yet been found.\textsuperscript{174}

c. Proposed solutions. When all the parties involved, with the exception of the downstream and upstream appropriators on the river, concur that water quality releases should be protected, finding a satisfactory solution should be possible. The most obvious one is to have the Water Office, acting with the knowledge and support of the Chief Engineer, enter into an agreement with the Corps of Engineers whereby the Water Office, on behalf of the State of Kansas, agrees to have water quality releases by the Corps protected against downstream appropriators. The controlling language of such an agreement should expressly put the burden of protection on the State, so the Chief Engineer would have clear legal footing when he proceeds to shut down an infringing appropriator.\textsuperscript{175} Such agreements appear to be allowed by section 82a-915 of the Kansas Statutes Annotated (1977), which states:

The board [now the Kansas Water Office] is hereby authorized to negotiate with the federal government relative to releases of water from projects or reservoirs and to enter into agreements with the federal government with respect to the operation of projects or reservoirs for the releases of water, if such agreements are authorized by the state water plan as enacted by the legislature.

The Water Plan in section 82a-932 provides for these agreements:

The Kansas water resources board shall enter into negotiations and agreements with the federal government relative to the operation of, or the

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\textsuperscript{173} Telephone conversation with Leland Rolfs, Legal Counsel to the Chief Engineer (Aug. 12, 1983).

\textsuperscript{174} The Chief Engineer stated in a letter to Francine Neubauer, Executive Director, Water Resources Board (July 7, 1981), that "I sympathize with your desire to protect water supplies for the benefit of the people of Kansas, and I would concur that even though our views on methodology may differ, that we should make this our mutual goal." See Letter, supra note 159. In a letter from James J. Harmon, District Engineer, Tulsa District, Corps of Engineers, to Allyn O. Lockner, Director, Kansas Water Office (May 5, 1982), Col. Harmon stated:

[I]t is preferable that the State protect the releases as a part of an overall water management program. It is our understanding that pursuant to K.S.A. 82a-915 an agreement with the Federal Government is required before this can be accomplished. Tulsa District has been negotiating with Kansas water authorities for several years on such an agreement. Consumption of the negotiations in the form of an agreement would be most welcome.

A January 19, 1981, draft of the proposed agreement exists entitled "Memorandum of Agreement between the Kansas Water Resources Board and Corps of Engineers, Department of the Army with respect to Protection of Releases from Corps Projects in the Verdigris River Basin." This agreement has not been finalized by the parties. Article 11 of the draft agreement reads as follows:

\textit{ARTICLE 11. Protection of Releases.}

Releases made pursuant to this agreement shall be protected by the State of Kansas against appropriation and/or diversion for the reaches defined in Article 3. The parties acknowledge that releases hereunder shall be made pursuant to this agreement between the Board and the Corps and shall be protected against unauthorized diversion and/or appropriation as provided by the laws of the State of Kansas.

\textsuperscript{175} See Draft Agreement, Art. 11, supra note 174, as an example. This draft contract's language could be made more forceful and clearer in giving the state responsibility for protecting the releases. If the Chief Engineer does not sign such an agreement, the agreement probably cannot expressly obligate him to anything, but it could purport to bind the State of Kansas.
release of water from, any project that has been authorized or constructed by the federal government when the board shall deem such negotiations and agreements to be necessary for the achievement of the policies of the state of Kansas relative to the water resources thereof.\textsuperscript{176}

A second method of protecting these releases in the absence of such a contract with the United States would require a change in the Water Plan Storage Act, an amendment previously proposed during the 1981 legislative session.\textsuperscript{177} This second alternative would amend section 1303\textsuperscript{178} of the Water Plan Storage Act to grant to the Water Office the power to obtain reservation storage rights for not only water supply but also for water quality releases. Of course, this water quality reservation right would have a priority as of the date of filing a notice, so appropriators who have obtained rights between the filing of the original notice for the water supply reservation right would have priority over the state for its new reservation right for water quality releases. Even this solution would probably require an agreement between the Water Office and the Corps. The Corps operates the reservoir and has some rights, to be discussed later, to store water and make releases. With the Water Office obtaining a reservation right for water quality, a potential conflict would exist regarding when and how much to store and release.\textsuperscript{179}

The third possibility would be for the Water Office to file for an appropriation right for water quality purposes under the Kansas Appropriation Act and to request permission from the Chief Engineer and the appropriate federal agency to store the water in reservoirs. The Act allows any “person” to apply for a permit,\textsuperscript{180} and “person” is defined to include “any agency of the state or federal government.”\textsuperscript{181} Whether the Chief Engineer would act favorably on such an application is not known, particularly in light of some of the legal questions raised by such a filing. For example, a water right in Kansas is a real property right, “appurtenant to . . . land on or in connection with which the water is used . . . .”\textsuperscript{182} Here, the state does not own the land where the water would be used; it owns the storage space in the reservoir. In the case of non-navigable rivers into which such releases are made, the adjacent landowners own the bed of the river.\textsuperscript{183}

Another obstacle to the appropriation right approach under the Act is the

\textsuperscript{176} KAN. STAT. ANN. § 82a-932 (1977).

One question with such agreements is whether one contract would suffice or a contract would be needed for each of the reservoirs that have water quality or streamflow maintenance storage, the latter requiring more time to consummate. This brief discussion of the subject should in no way understate the difficulty involved in actually protecting such releases by the Chief Engineer.

\textsuperscript{177} See \textit{supra} note 163 and accompanying text.

\textsuperscript{178} KAN. STAT. ANN. § 82a-1303 (Supp. 1983).

\textsuperscript{179} The Chief Engineer would require such an agreement before he would approve an appropriation right, according to Leland Rolfs, Legal Counsel to the Chief Engineer. Telephone conversation, Aug. 12, 1983.

\textsuperscript{180} KAN. STAT. ANN. § 82a-708a (Supp. 1983).

\textsuperscript{181} Id. § 82a-701(a) (1977).

\textsuperscript{182} Id. § 82a-701(g) (1977).

\textsuperscript{183} See cases cited in E. Shurtz, \textit{KANSAS WATER LAW}, KANSAS WATER RESOURCES BOARD, 1967, at 21 n.80.

Of course, cities obtain water rights under the Act, and the city does not necessarily own land to which the right attaches, so perhaps this objection is not well founded. Additionally the Act allows a person to apply for a permit “notwithstanding that the application pertains to the use of water . . . upon or in connection with the lands of another.” KAN. STAT. ANN. § 82a-708a (Supp. 1983).
requirement that there be a diversion of water and that the water under an appropriation permit be put to a beneficial use. Here, the water would be released from storage and left in the stream, the purpose being to aid in water pollution abatement efforts. There would be no diversion unless one defined diversion to include an impoundment behind a dam. Although water quality use would seemingly constitute a beneficial use, the Rules and Regulations of the Chief Engineer define beneficial uses to include only domestic, stockwatering, municipal, irrigation, industrial, recreational, water power and artificial recharge. This restrictive definition prompted the Water Resources Board to favor amending the Chief Engineer's Rules and Regulations in 1980 to include "streamflow regulation" as a beneficial use. Another obstacle to the appropriation right approach discussed in Section II of this Article is based on the question of whether the Chief Engineer could approve an appropriation right that clearly has a storage component like this one would. It was concluded there that while Kansas law on this topic is not clear, the Chief Engineer has reasonably good authority to allow storage as a part of an appropriation right.

One final objection to using an appropriation right is that the Appropriation Act presently contains a section directed at streamflow quality. The Chief Engineer under section 703a may now withdraw from appropriation an amount necessary for desired minimum streamflows. That being the case, the argument would go, there is no need to have a separate appropriation right for water quality obtained by the Water Office. The counterargument is that where there is little or no streamflow due to drought, the law is of little help even if a minimum streamflow has been identified on all the watercourses of the state. What is needed is storage water for these drought conditions.

A fourth solution would be a request to the Chief Engineer to protect such releases under section 706b of the Appropriation Act based on existing contracts between the Water Office and the Corps of Engineers. This solution, suggested by the Board's attorney above, would eliminate any legislative changes. As stated above, the Chief Engineer believes that existing contracts for storage between the Corps of Engineers and the Water Office do not confer on him authority to protect releases under section 706b of the Water Appropriation Act. Of course, should the Attorney General offer a contrary view, the Chief Engineer would be obliged to follow that opinion. At a minimum, interested parties should seek an opinion on the issue before attempting to amend the statutes.

A fifth method can be gleaned from the Chief Engineer's 1981 correspondence with the Water Office when the Chief Engineer was rejecting the amended notices for increased storage. The Chief Engineer proposed that the Water Office send a notice for a new water reservation right for the entire quantity of water for both supply and water quality, but suggested that the new right could not have the early priority date of the first notice that included storage for water supply only. He qualified his suggestion, however, by noting that there was an administrative policy against such a right. This proposed solution is problematic,
however, since the Attorney General’s opinion on the authority of the Chief Engineer to turn down a notice of a water reservation right apparently rejects this suggestion and identifies a clear line between storage for water supply and for water quality: “As a result, if a notice submitted to the Chief Engineer described the storage space in the reservoir in terms of the entire conservation capacity, the latter official would be correct in requesting the notice be modified to accurately reflect the limits imposed by statute on the Board’s authority.”

A sixth possibility stems from an amendment to the Water Plan Storage Act, section 1314, adopted by the 1983 Kansas Legislature. That section provides that the Chief Engineer may, under sections 706b to 706e of the Water Appropriation Act, protect releases of storage requested by cities and industries under their contracts with the Kansas Water Office. The legislature added a new sentence: “In addition to such authority and duties, the chief engineer shall protect and shall have authority to enter into agreements necessary to protect any release of water.” Arguably, this broad language giving the Chief Engineer authority to contract to protect “any release of water” could be construed to allow the Chief Engineer to negotiate and contract with the Corps of Engineers concerning releases of water quality storage. As discussed above, the Attorney General concluded that only the Kansas Water Office possessed this authority, not the Chief Engineer, but his opinion was written prior to the amendment to section 1314. One may question whether this amendment, enacted in a narrow section dealing with releases of municipal and industrial waters, has expanded the authority of the Chief Engineer to contract in this water quality release situation.

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190 Senate Bill No. 61, supra note 189, at § 12.
191 See supra note 172 and accompanying text.
192 Before examining the amendment passed by the 1983 Legislature, it is instructive to see what occurred in 1981. Senate Bill 95, introduced, amended, and passed by the Legislature, but then vetoed by the Governor, would have amended the Water Plan Storage Act in several particulars, notably those dealing with the price of water sold for municipal and industrial uses on contract with the State.Senate and House Journals, State of Kansas, 1981, at 790. The Governor's reason for his veto was that the question needed more study, particularly since the Legislature had just created the Kansas Water Office and the Kansas Water Authority. There was no mention in Senate Bill 95 of giving the Chief Engineer the power to contract to protect water quality releases; that issue had not yet arisen. See Op. Kan. Att’y Gen. 82-201 (1982), which concluded that the Water Office and not the Chief Engineer had authority to contract with the Corps of Engineers. See also supra note 172 and accompanying text. Also introduced that Session, as noted above, was Senate Bill 194, which would have created a second type of water storage right obtainable by the Water Office—one for water quality storage. See supra note 163 and accompanying text. That Bill passed the Senate but not the House. See Senate and House Journals, State of Kansas, 1981, at 254, which indicates that the Senate passed the bill 39 to 1 but that this was the final action on the bill. In 1982, the only piece of legislation relating to the Act was Senate Bill 622, which amended Section 1307 in a way not relevant to this discussion. See 1982 Kan. Sess. Laws ch. 438.

Prior to the 1983 Session, the Kansas Water Authority produced a typewritten report dated January 18, 1983, and titled "Kansas Water Authority Recommendation to the 1983 Kansas Legislature" in which the Authority made proposals to change Kansas water law. One chapter of that report dealt with the Water Plan Storage Act, and the Legislature, acting with the impetus of that report, made sweeping changes in the Act. 1983 Kan. Sess. Laws ch. 343 indicates that almost all sections of the Water Plan Storage Act were amended and that several new sections were added to the Act. It was in this "Recommendations" report that the amendment to section 1314 was suggested. Since the thrust of the Bill involved water pricing, the particular change giving the Chief Engineer new authority was not mentioned in the "Background" to the proposal made by the Authority. The proposed change is first mentioned in the "Bill Summary" where the Authority states: "(221-1314). New language proposes giving the chief engineer clear authority to protect and enter into agreements to protect releases from the water supply capacity." The specific proposal made by the Authority in their report would have added the following sentence to section 1314: "The chief engineer shall protect and shall have all authority to enter into agreements
A seventh possibility of obtaining water for water quality releases derives from Section 1305 of the Act. As stated above, the Kansas Water Authority may approve the disposition of “surplus waters” of the state held in its conservation supply pool “not required to meet contract requirements.” Presumably this refers to excess waters that might be purchased for municipal and industrial uses for short terms. An amendment to Section 1305 made by the 1983 Legislature, however, indicates that other uses could exist for this surplus water:

Whenever the disposition of any such surplus waters is for any purpose other than for streamflow maintenance or reservoir pool management, a charge shall be levied thereon at a rate set by rule and regulation adopted pursuant to this act.

Arguably “streamflow maintenance” could refer to releases for water quality purposes, allowing the Kansas Water Office to seek such waters from the Water Authority. But this method stops short of providing any long-term solution to the problem. The contracts may not exceed one year, and presumably there will be

necessary to protect any releases of water from the state's conservation water supply capacity into Kansas streams.” Senate Bill 61, as first introduced, worded it as follows: “In addition to such authority and duties, the chief engineer shall protect and have authority to enter into agreements necessary to protect any such release of water.” [Emphasis added.] Note that this language includes the word “such” release of water, referring to the other language in 1314 concerning persons who have contracts with the Water Office for water supply, i.e., cities and industries. The Senate Committee on Energy and Natural Resources, however, amended that language by striking the word “such”: “In addition to such authority and duties, the chief engineer shall protect and have authority to enter into agreements necessary to protect any release of water.” This change apparently resulted from a suggestion made by the Water Authority in a letter to the Committee Chairman:

11. At Page 12, Line 425. The Authority's intent was that the Chief Engineer protect and have agreements to protect any releases from conservation water supply capacity, including releases of surplus water for minimum streamflow maintenance if the water is surplus to the contracts. The Authority would raise the question as to whether the words “any such releases” refers [sic] back to water supply contracts only in lines 407 and 408. The word “such” may be triggering this question.

Letter from Jack Alexander, Member, Kansas Water Authority, to Charlie Angell, Chairman, Senate Committee on Energy and Natural Resources (Jan. 25, 1983). The statement would favor reading the change as having the intent of broadening the Chief Engineer’s authority outside of the water supply storage context, although the reference to surplus water still uncontracted for must refer to water held by the State and not water in the Corps’ water quality storage. The House Committee on Energy and Natural Resources, after receiving the bill from the Senate Committee, made no further change to this section, and the section was eventually passed as part of the total package that included major amendments to the Kansas Water Plan Storage Act. The Governor signed the bill on March 16, 1983.

The “Supplemental Note on Senate Bill 61,” an explanation of the bill published by the Legislature Research Department after the bill’s passage (but stating at the bottom of the page that it did not purport to “express legislative intent”), included the following explanatory remarks about this particular amendment: “Section 12 would amend K.S.A. 82a-1314, the section providing for releases of water from the reservoir. Amendments to this section provide for clarification and would impose a duty on the Chief Engineer to protect any such release of water.” This explanation would favor reading the amendment to refer only to releases from water supply storage, because it again uses the word “such” to tie the amendment to the other part of Section 1314. While the amendment when read out of context is broad enough to confer additional powers on the Chief Engineer, it probably would not be so broadly construed by a court. One must still look at the surrounding language, which deals with water supply capacity. The whole Act deals with that subject. Had the Legislature intended to broaden the Chief Engineer’s powers, it could have easily done so by a separate bill that would find its way eventually into the statutes stating the Chief Engineer’s powers in general. This conclusion is shared by Don Hayward of the Reviser of Statutes Office, who was intimately involved with this bill and its journey through the Legislature. He recalls no attempt by the Chief Engineer or the Water Authority to give such broad powers to the Chief Engineer. Telephone conversation with Don Hayward (Aug. 12, 1983). Leland Rolfs, Legal Counsel to the Chief Engineer, confirms that his office was not seeking such power through this amendment. Telephone conversation with Leland Rolfs (Aug. 12, 1983).

193 See supra notes 109-10 and accompanying text.
195 Id.
increasingly less "surplus water" over time as more contracts are made for the water.

The eighth and last proposal is for the Corps of Engineers itself to define and enforce its rights. The precise nature and extent of the Corps' right is discussed in Section V of this article. But for purposes of present discussion, if the Corps had water rights filed such that the Chief Engineer could recognize them, he would have a firmer legal foundation upon which to proceed in shutting down impairing appropriators.196

IV. CONTRACTS FOR MUNICIPAL AND INDUSTRIAL WATER

A. Introduction

Kansas law affords several means of obtaining rights to use water. The most secure and least expensive is the appropriation right,197 since once obtained it is a real property right that exists in perpetuity, subject only to loss by condemnation or by forfeiture due to a failure to use the water. The only cost involved—excluding capital and operating costs—is the cost of filing for the permit.198 Akin to the appropriation right are the water reservation rights held by the state, which have priority dates and quantities like appropriation rights, but which are not real property rights.199 Only the state may obtain these rights. A third type of "right" is the contract right to purchase water obtainable by persons seeking municipal and industrial waters from storage held by the state under the reservation rights. These contract rights are briefly discussed in this section by describing their nature and the method of obtaining them; by examining two conflicting situations that could arise; and by describing some other issues relating to these contract rights.

B. Contracts for Water under the Kansas Water Plan Storage Act

Once the state has obtained a water reservation right, the state may contract to sell this water for municipal and industrial use. These contracts, which must ultimately be approved by the Kansas Water Authority and the Kansas Legislature,200 may be made with any "person," defined as "a natural person, partnership, organization, association, private corporation, public corporation, any taxing district or political subdivision of the state, and any department or agency of the state government."201 The Attorney General has concluded, however, that the contracts may be for municipal and industrial use only, and not for such agri-

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196 The problem could work itself out over time because of federal water policy. Controlling water pollution by diluting streams was changed in 1972 with an emphasis on point sources and effluent standards. See Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, § 2, 86 Stat. 816 (1972). Much of the water stored for water quality will eventually be reallocated by the federal government to other uses. The State of Kansas is now discussing in a preliminary fashion the purchase of such storage, as an alternative to the building of new reservoirs. See Preliminary Draft of the State Water Plan, Fiscal Year 1985-1986, Public Water Supply, July 1983, at 19; Preliminary Draft of the State Water Plan, Fiscal Year 1985-1986, Executive Summary, July 1983, at 17, both booklets published by the Kansas Water Office.

197 See supra note 5 and accompanying text.

198 The cost was formerly a flat $50 per application, but it is now based on the amount of water involved, and it also varies if storage is involved. See KAN. STAT. ANN. § 82a-708a (Supp. 1983).

199 See supra note 93 and accompanying text.

200 KAN. STAT. ANN. §§ 82a-1305, 82a-1307 (Supp. 1983).

201 Id. § 1301(d) (Supp. 1983).
business uses as irrigation. 202

The state may not contract for more water than exists in the yield capacity of each reservoir, 203 so the total water that may be sold is limited by yield and not by the volume of the storage space in the reservoir. While the Act formerly provided that the terms of these contracts would be from ten to forty years, 204 the 1983 legislative amendments limit the contracts to a term of at least ten years, unless the applicant requests a shorter term. 205 In addition, the holder of a contract is given a first right of refusal at the expiration of the contract of "any new offering of the water before offering the same to [other] applicants. . . ." 206

Prior to the 1983 legislative session the water price was statutorily prescribed as being between five and ten cents per 1000 gallons. 207 A typical contract under the Act prior to 1983 provided a total maximum amount over the life of the contract that could be obtained by the purchaser and a maximum annual amount the state would be obligated to provide. 208 But the 1983 legislature enacted a complicated incremental pricing system that will make water under new contracts cost at least eleven-plus cents per 1000 gallons. 209 State law provides for a minimum annual charge should the purchaser actually take less water than that for which he originally contracted. 210 The price of the water may be adjusted annually by the Director of the Kansas Water Office. 211 Moreover, the amount of water under the contract may be adjusted on the sixth anniversary and each following anniversary "if the contractor does not begin full payment for the water under contract and another water user is ready, willing and able to contract for such water." 212

Those desiring to purchase water from the state must file an application with the Director of the Water Office as prescribed by the statute 213 and rules and regulations of the Office. 214 If the purchase would constitute a "water transfer" under Kansas law, special rules would apply. 215

202 See supra note 104 and accompanying text.
206 Id.
208 See, e.g., State of Kansas, Kansas Water Resources Board, Contract Between the State of Kansas and the City of Lawrence for a Municipal and Industrial Water Supply, Water Purchase Contract No. 77-1, Article 6, “Quantity and Price of Water” (Dec. 1977).
209 The 11-plus cents figure was shown to be the resulting price under the proposed legislation by staff members of the Kansas Water Office appearing before the legislative committees during the 1983 legislative session.
210 Kan. Stat. Ann. § 82a-1306(2) (Supp. 1983). This minimum charge consists of a sum based on a charge for 50% of the total amount of water contracted for, to be paid on either annual or monthly installments, plus interest on the remaining 50% of the water reserved under the contract.
213 Kansas Water Plan Storage Act, Kan. Stat. Ann. §§ 82a-1301 to -1319 (Supp. 1983). Sections 1310(a) and 1311(a), as amended by the 1983 Legislature, set out the statutory procedures for entering into water contracts.
215 Kansas law now has special provisions governing “water transfers,” defined as “the diversion and transportation of water in a quantity of 1,000 acre-feet or more per year for beneficial use outside a ten-mile radius from the point of diversion of such water.” Such transfers, whether made from streamflow, water storage, or groundwater, must be approved by a three-person committee, the Kansas Water Authority, and the Kansas Legislature before construction and diversion. Act of May 9, 1983, ch. 341, 1983 Kan. Sess. Laws 1541 (codified at Kan. Stat. Ann. §§ 82a-1501 to -1506 (Supp. 1983)).
C. Conflicts

1. Among Holders of Contract Rights

If the state were to find itself in a position of not being able to provide to the contract holders all the water contracted, the contractors would not be treated like appropriators with a first in time, first in right distribution according to the date of the contracts. The Act instead requires the Director, with approval of the Authority, to “apportion the available water . . . as may best provide for the health, safety and general welfare of the people of this state.”216 A municipality, for example, could be preferred to a company using water for industrial use. There is already some hint in the Kansas statutes that the Director should recognize such a preference.217 But the Act does not provide a remedy for a disgruntled contractor; in fact, just the opposite: “Neither the state nor the authority shall be responsible or have any legal liability for any insufficiency of water or apportionment thereof”218 and “[n]othing in this section shall be deemed to authorize any suit against the authority or any member thereof, or any officer or employee of the state or of the authority, on an implied contract, or for negligence or any other tort.”219

The timing of a contract may be important. While the statute does not prescribe that a contract application will be automatically preferred to one received later in time concerning the same water supply, the date of receipt of the application is one of nine specific factors that the Authority is to consider in deciding whether to approve a contract application.220

2. Between a Holder of a Contract Right and a Holder of an Appropriation Right

This Article has already dealt with conflicts between appropriation rights and water reservation rights.221 These conclusions are equally applicable here, since the contract rights are only as good as the water reservation rights upon which they stand. Naturally, there may be actual disputes when a contractor claims that an upstream appropriator is taking his water. In these cases, the Chief Engineer has authority to protect the proper person.222 The Act provides a procedure for “calling” for water by a contractor.223 The contractor first advises the Director of the Water Office who informs the Chief Engineer. Once the Director and the Chief Engineer agree on a specific time the Director notifies the authorities in

220 Kan. Stat. Ann. § 82a-1311a (Supp. 1983). The other eight factors are (1) the present and future water supply needs of the applicant; (2) any current beneficial uses being made of the noncontracted water proposed to be diverted; (3) any reasonably foreseeable future beneficial uses of the water; (4) the economic, environmental, public health and welfare and other benefits or adverse impact of approving the contract; (5) alternative sources of water available to the applicant; (6) the preliminary plan of design, construction and operation or any works or facilities used in conjunction with carrying the water to its point of use; (7) whether the proposed purchase is consistent with the state water plan approved by the legislature; and (8) minimum streamflow requirements.
221 See supra notes 95-110 and accompanying text.
charge of the reservoir, either the Corps of Engineers or the Bureau of Reclamation, to make the release. The Chief Engineer is required to protect these releases under applicable sections of the Appropriation Act, and he may enter into agreements to protect any of these releases. Disgruntled contractors may sue the Kansas Water Authority to enforce any claims or rights under their contracts.224

D. Other Matters Relating to Contracts

1. Assignment of Contract Rights

The Act gives contractors the right to sell, assign, convey or transfer all or part of a contract, but the Water Authority must approve of the transfer and may impose conditions upon it.225 The Water Office has rules and regulations prescribing the procedures to be followed in such assignments, including giving notice, citing the reasons for the assignment, and giving the quantity of water involved.226 The regulations empower the Water Office to cancel the whole water contract in cases where the proposed assignment would involve a change in either the place of use or the purpose of the use.227 Before cancellation of a contract, however, the assignor is entitled to a hearing to demonstrate why the Water Office should not cancel the contract.228

2. Breach of Contract by the Purchaser

The purchaser need not request all of the water purchased under the contract, but it must pay a minimum fee according to the statute.229 If there is a breach of contract for nonpayment, the Act provides that overdue payments bear interest, and it further provides that neither the Water Authority nor the State of Kansas waives other outstanding rights.230 These rights would presumably include typical contract breach remedies such as suing for payment, withholding performance by not providing water when requested, or terminating the contract. Presumably other actions of the contractor could be deemed a breach of contract, but the Act provides no express remedy for such breaches.231

3. Condemnation of the Contract Rights

Condemnation of water reservation rights has already been described in this Article.232 If the federal government condemned a water reservation right, the municipal and industrial water purchasers would be directly affected and the federal government would likely need to condemn these contract rights. Although only the federal government presumably could condemn water reservation rights held by the State of Kansas, any state governmental unit with condemnation power presumably could condemn the contract rights of water purchasers. Cities likewise could condemn rights held by individuals and indus-

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224 KAN. STAT. ANN. § 82a-1318 (Supp. 1983).
225 KAN. STAT. ANN. § 82a-1316 (Supp. 1983).
227 Id. § 98-5-4(h) to -j.
228 Id. § 98-5-4(g).
229 See supra note 210 and accompanying text.
230 KAN. STAT. ANN. § 82a-1317 (Supp. 1983).
231 Such actions could include failing to use the water as stated in the contract or using it at a different location or failing to install meters as required or failing to send meter readings to the Water Office.
232 See supra notes 123-35 and accompanying text.
tries since cities have condemnation power. While some industries possess this power, their exercise of this right would not extend to other contract rights because state law authorizes the condemnation of “land” only and not other property.

4. Changes in Water Prices

Under the pre-1983 version of the Water Plan Storage Act, the Water Office could change the price of the water on the “tenth anniversary of the contract and each tenth anniversary thereafter, to reflect any change in experience.” Since the Act also prescribed a range of prices from five cents to ten cents per 1000 gallons, presumably any price changes could not exceed the ten cent maximum. The 1983 amendments to the Act deleted the range of prices and substituted for new contracts an incremental structure that made the 1983 price eleven-plus cents per 1000 gallons. Thus, new contracts will have prices beyond the limit of the old contracts. The amendments further provided that the Water Office could adjust the rates every year to reflect change in experience. There is no problem with such a provision on a new contract; if a municipal or industrial user signs a contract that includes a price adjustment clause, and such a clause is allowed by statute, the user has no complaint if there are adjustments in price.

The difficulty arises when these new amendments are applied to existing contracts. Can an existing contract have its water price raised annually? Can an existing contract have its water price raised beyond the ten cent limit that existed at the time of the contracting? These questions will almost undoubtedly be raised by the holders of contracts and be settled by the courts, since they involve important questions of contract impairment. The Attorney General of Kansas has already issued an opinion answering part of the questions posed. In his opinion, the Attorney General stated that the water pricing amendment which provides for annual adjustments of water charges may not be applied to contracts entered into and approved by the legislature prior to the effective date of the bill. However, the opinion does not clearly address the question of whether water prices under old contracts could be raised beyond the ten-cent limit at the tenth anniversary of the old contracts.

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235 Even if industries could condemn contract rights, they might be limited by the Kansas Water Appropriation Act, KAN. STAT. ANN. § 82a-707 (1977), which has a use-preference listing as follows: domestic, municipal, irrigation, industrial, recreational and water power uses. This list is followed by the statement that regardless of use, first in time is first in right for appropriators, which has led to speculation about the meaning of the preference listing. The section adds that a holder of a water right for an inferior use cannot be deprived of use except through condemnation, which probably means, if it is applicable here, that a city could condemn the contract right of an industrial user, but not vice versa. This conclusion might go unquestioned if considered in the context of a large city condemning the contract rights of a small industry. But when a small downstream city (or a group of them) seeks to condemn contract rights of a large industry, the conclusion would likely be tested in both the courts and the legislature. Consider, for example, John Redmond Reservoir, whose storage water supply has been purchased by the Kansas Gas and Electric Company and Kansas City Power and Light Company under Contract 76-2 for eventual use in the Wolf Creek Nuclear Power Plant. Condemnation by cities of this storage water could mean the power plant could not function unless it could procure water from other supplies. See Peck, Legal Constraints on Diverting Water from Eastern Kansas to Western Kansas, 30 KAN. L. REV. 159, 176-79 (1982).
236 KAN. STAT. ANN. § 82a-1306(c) (1977).
237 See infra note 209 and accompanying text.
238 KAN. STAT. ANN. § 82a-1306(3) (Supp. 1983).
V. FEDERAL RIGHTS

A. Introduction

This Article has on several occasions alluded to federal rights. This section briefly discusses the nature of the federal interest in reservoirs constructed by the federal government. More detailed analysis must await another forum.

The question presented is the following: once a federal agency, such as the Corps of Engineers or the Bureau of Reclamation, undertakes to construct a reservoir behind which Congress has empowered the agency to store water for various purposes like fish and wildlife or water quality enhancement, what is the nature of the federal agency's right to store water for those purposes? Is there a quantity or priority date associated with this right so that, like an appropriation right, it can be recognized and protected under state law? What is the source of this right? If it is not filed under the state water rights permit system, how is it recognized and protected by the two governments?

B. Source, Existence, and Nature of a Federal Right

Federal powers over water derive from the United States Constitution, particularly the commerce clause, which gives Congress jurisdiction over navigable waters. As stated by Dean Trelease:

[The power to regulate navigation was held to comprehend the control of navigable waters for the purpose of navigation. The power to control navigation and navigable waters includes the power to construct obstructions that destroy the navigable capacity of the waters and prevent navigation. It also includes the power to protect navigable capacity by preventing diversions of the river and even its nonnavigable tributaries, or by preventing obstructions by bridges or dams and the power to construct flood control structures on the navigable waters, their nonnavigable tributaries or even on the watersheds.]

Using this somewhat flimsy-looking but by no means shaky structure for a foundation, Congress has built a huge program of river regulation and water control. Buttressed by the general welfare clause and the property clause the federal program is the most significant single factor in modern water regulation and conservation. Huge multipurpose projects combining features of navigation improvement, flood prevention, power production, irrigation and recreation in many cases encompass the development of entire river basins.

Therefore, the commerce clause, the property clause, and the general welfare clause are important constitutional provisions in the derivation of federal powers and rights. But an equally important provision is the supremacy clause, which provides that in conflicts between state law and federal law, state law must yield.

These provisions of the United States Constitution operate to resolve conflicts arising between state and federal interests. For example, a state may not stop the

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\begin{footnotes}
\item[240] See supra note 81 and accompanying text; notes 142-74 and accompanying text; note 196 and accompanying text.
\item[241] U.S. CONST. art. 1, § 8, cl. 3.
\item[242] NATIONAL WATER COMMISSION LEGAL STUDY NO. 5, F. TRELEASE, FEDERAL-STATE RELATIONS IN WATER LAW at 40-41 (1971).
\item[243] Id. at 56-58. The supremacy clause is found in article VI, clause 2 of the U.S. Constitution.
\end{footnotes}
construction of a federal project; nor must a federal agency obtain a permit or license before beginning to build a project. Congress can give a federal agency the power to distribute water stored behind its dams.

Congress has largely left the administration of water rights to the states, even though federal programs like the federal reclamation act could have been administered wholly under federal law. In the case of reclamation projects, however, Congress deferred to state law by stating that in the “control, appropriation, use or distribution of water used in irrigation,” federal authorities should not interfere with state law. The Supreme Court interpreted this protection in California v. United States by holding that the Bureau of Reclamation had to comply with various conditions dealing with the water’s use that were imposed by the state water resources board. Laws involving flood control projects administered by the Corps of Engineers, however, do not contain such a clause. Consequently, with respect to a typical Corps project, federal statutes do not require the Corps to defer to state law in obtaining whatever water rights it needs to fulfill the purposes of the project; this fact explains why the Corps never files for a water right in the State of Kansas.

Does the Corps even have or need a “water right” for its Kansas projects? If the Corps has built a reservoir for other than flood control purposes, it must have the right to store water for those purposes such as water quality or fish and wildlife enhancement. One type of right that has been recognized in favor of the federal government is the “federal implied reservation right.” First recognized in cases involving Indian reservations, it has since been extended to any federal reservation of lands set aside from the public domain. Where Congress exhibits an intent to reserve water, the amount necessary to meet the purposes for which the land is withdrawn is reserved from the unappropriated water available. Arguably, the acquiring of land for a Corps of Engineers’ reservoir, the construction of a dam, and the impounding of water for water quality purposes fits the situation involving reserved rights. If it does, the right would date from the date of the reservation, and the quantity would likely be at least that amount represented by the storage volume for that purpose.

The Supreme Court has yet to address a case involving the question of a reserved right on acquired lands. But support for recognizing a reserved right for the federal reservoir situation is found in a recent legal memorandum from the United States Justice Department, in which the following is stated:

The terms “public domain” and “reserved lands” are most often used to refer to land that has been owned continuously by the federal govern-

247 SAG, WATER LAW PLANNING & POLICY, CASES AND MATERIALS, 105 (1968).
250 See supra text accompanying notes 147-74.
253 It is not clear what the date of the reservation would be for a Corps project. It could be the date the Congress authorized the project by statute, the date land is condemned by the Corps, the date of beginning construction, or the date the water is first diverted and impounded. See Dinkins Memorandum infra note 254 at 78 n.107.
ment. There is a third category of federally owned land that includes
lands acquired by the federal government from private ownership by
purchase, exchange, gift, or condemnation pursuant to statutory author-
ization. . . . These “acquired” lands may become part of the public do-
main, or may be set aside for specific federal purposes in the same manner
as reserved lands. When acquired lands are set aside, they are not charac-
terized as reserved lands, because they were not, strictly speaking, re-
served from existing public domain lands. They are nonetheless usually
managed under the same statutory authority and for the same purposes as
reserved lands, and therefore for most purposes can be considered as part
of a federal reservation . . . . 254

Most commentators argue that such projects where acquired lands are in-
volved do not create reserved rights. Dean Meyers, for example, stated in his
National Water Commission Study: “It has been argued that withdrawal of a
damsite reserves enough water to fill whatever reservoir is created by the dam
eventually erected. While I think the Congress has power to make such a reser-
vation (subject to vested rights), I do not believe it intended to do so.”255 Waring
and Samelson, two Colorado lawyers, concluded that:

[T]he reservation doctrine does not apply to public domain lands or to
acquired lands owned by the United States . . . . Reserved water rights,
as defined by the courts, are water rights concomitant with lands reserved
from the public domain. See, e.g., Cappaert v. United States, 426 U.S. 128
(1976). Since federal acquired lands were not reserved from the public
domain, they do not qualify for reserved water rights. The Supreme
Court held in the Pelton Dam case that water rights on public domain
lands are subject to state water laws. 349 U.S. at 441-43.256

One could also argue that the reserved rights doctrine is primarily a property-
related concept with the true interest being the reservation of real property
and the incidental interest being the water. Corps of Engineers’ projects are the op-
posite: the focus is on water resources, and the necessity of acquiring land is
incidental to the water needs. If this argument is correct, the reservation doctrine
might not apply to Corps projects.257

If the Corps does not have a reserved right, but nonetheless has a right, then it
could be a “federal non-reserved right.” Such rights were suggested in an opin-
ion issued by the Department of Interior in 1979 (and later reversed).258 The
legal memorandum of the Justice Department quoted from above apparently
rejects the reasoning of the Interior decisions259 but puts forth a broad theory for
federal rights, no matter how they are characterized:

254 Federal “Non-reserved” Water Rights, Memorandum for Carol E. Dinkins, Assistant Attorney Gen-
eral, Land and Natural Resources Division, U.S. Department of Justice, Office of Legal Counsel, Washing-
ton D.C., June 16, 1982, at 17. See also id. at 77-78.


256 Waring & Samelson, Non-Indian Federal Reserved Water Rights, 58 DEN. L.J. 783, 789 & 789 n.56

257 This argument was made during informal discussions with Terence J. Kelley, Esq., of the Office of
District Counsel, Corps of Engineers, Kansas City District in Kansas City, Aug. 3, 1983.

36,914, 88 Interior Dec. 253 (1981); 88 Interior Dec. 1055 (1981). For a summary of these decisions, see C.
MEYERS & A. TARLOCK, WATER RESOURCE MANAGEMENT, A CASEBOOK IN LAW AND PUBLIC POLICY at
36-37 (2d ed. 1983 Supp.).

259 C. MEYERS & A. TARLOCK, supra note 258, at 37.
It is important to understand that any water rights that may be asserted by the federal government outside of state law—whether called reserved, non-reserved or by some other name—rest on this same constitutional basis. Thus, federal reserved rights are not a unique species of federal rights that arise directly out of the reservation of federal lands, so that, absent a reservation of land, no federal water rights can exist. As one commentator has noted, "the reservation doctrine is not a source of federal power." Trelease, Federal-State Relations.

Thus the willingness of the Supreme Court to recognize federal reserved rights does not, under an exlusio unius principle, necessarily preclude the federal government from asserting in other circumstances water rights not available under state law or under the reserved right doctrine. The fact that the Supreme Court has never explicitly recognized a non-reserved water right in haec verba does not mean that the Court would not recognize the federal government's implied rights to unappropriated water, arising from clear congressional intent, in a situation that has not yet been presented to it . . . 260

The opinion goes on to suggest, however, that the Supreme Court cases involving federal water rights show that "substantial deference will be accorded to state water laws."261 Congress may create federal water rights that do not depend on state law, but these are seen as an exception "particularly as they could substantially disrupt or disturb expectations of private appropriators under existing state systems."262 Thus, "in the absence of evidence to the contrary, it will be presumed that Congress did not intend to alter or affect its policy of deference to state water law. Therefore, as a general rule, it will be assumed that Congress intended federal agencies to acquire water rights in accordance with state law and contemplated that a state could deny some federal uses of water."263 So each statute must be examined to determine if Congress intended to make exceptions to the general rule of deference to state law.

Under the Department of Justice analysis, a federal reserved right could be found for a Corps of Engineers project such as Clinton Reservoir. But as an alternative it states that "Congress could establish 'primary purposes' for the management of public domain lands that could be the basis for federal water rights."264 Under either theory, the Corps of Engineers would probably be deemed to have a water right for the purposes set forth in the statute authorizing construction of a reservoir which includes by reference the Congressional reports that describe the projects in more detail.

Owning a right is one thing; proving and enforcing it is another matter altogether. Absent a writing quantifying the Corps' water rights, it is difficult for the Chief Engineer to enforce them under State law. At a minimum, the Corps and the State of Kansas need an agreement such as those discussed earlier. Without such an agreement, the Corps might try to enforce its rights either directly by going to court seeking injunctions or indirectly by refusing to release water for

260 Dinkins Memorandum, supra note 254, at 48-50.
261 Id. at 67.
262 Id. at 74.
263 Id. at 76.
264 Id. at 79.
water quality purposes. Furthermore, owning a right is different from knowing what remedy might be available to enforce that right. While a reserved right is seen as akin to an appropriation right since both have priority dates and quantities, another kind of federal right could conceivably be viewed differently. For example, while it is possible that the Corps of Engineers may have the right to store whatever inflows are available under its contract with the Kansas Water Office, it is not clear that the Corps’ right extends to enjoining upstream diversions that impair the Corps’ right. It is even possible that the Corps’ rights and duties stop once water is stored and then released for a federal purpose such as water quality, in which case the Corps could not enjoin downstream appropriators from impairing the flows for that purpose.

Even if the Corps were deemed not to have a water right on the level of a reserved right, at least the Corps could arguably own rights under its contracts with the Kansas Water Office. These contracts granted Kansas water storage space, and the Corps indirectly “reserved” a percentage of the inflows. These would be limited rights, however, compared to reserved rights which have appropriation right status. And, as discussed in Section III.B.1 above, there is some question whether the Kansas Water Office has the authority to grant, or recognize by contract, any water rights to the United States.

The very last paragraph of the Justice Department memorandum suggests a prudent step:

The next logical step, to the extent it is necessary in order to apply this analysis to particular statutes, lands, or claims, is for the agencies with responsibilities for enforcement and administration of the various land management statutes to review their statutory authority and water needs in light of the principles we have outlined here.

The Corps of Engineers, being one of these agencies, should conduct an analysis of the statutes under which it builds and operates reservoirs and decide whether they clearly establish Corps functions as “primary purposes for the management of public domain lands that could be the basis for federal water rights.” If the analysis concludes that Congress has established these rights the Corps should still proceed to gain recognition of those rights by contracting for protection of releases and inflows with the State of Kansas. If the analysis concludes otherwise, the Corps should file for its water rights with the Chief Engineer.

VI. CONCLUSION

This article has the limited purpose of examining a few of the legal questions involving storage water in the federal reservoirs in Kansas, particularly Corps of Engineers reservoirs. While it is not clear that Kansas statutes enable appropria-

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265 A Corps of Engineers letter to the Director of the Kansas Water Office indicates the belief that the Corps does have remedies:

Downstream withdrawal of water released from water quality storage for irrigation is in violation of the 1944 Act. While the Federal Government does possess remedies of its own, it is preferable that the State protect the releases as a part of an overall water management program.

Letter from James J. Harmon, supra note 174. The letter, however, does not state what these “remedies” are.

266 Dinkins Memorandum, supra note 254, at 80.

267 Id. at 79.
tors to obtain storage rights in small bodies of water, the statutes clearly give the state the power to obtain reservation storage rights in the large Kansas reservoirs. The state's reservation rights raise a host of questions including how conflicts among holders of various water rights are to be resolved, how the quantity of the water reservation right is determined, whether a reservation right may be condemned, and lastly and perhaps most importantly how releases of reservoir water for water quality purposes downstream from reservoirs can be protected.

The state uses the reservation right mechanism to obtain water supply for municipalities and industries, which purchase the stored water from the state under contract. Recent legislative amendments changing the pricing of such water raise legal questions regarding the effect of these price changes on existing contracts. There are other questions about conflicts among contract holders, conflicts between a contract holder and an appropriator, assignment of contract rights, and condemnation of contract rights by cities who need to expand their water supplies.

Naturally, there are many problems unaddressed by this article. A future study should consider in depth whether the federal government, by constructing a multi-purpose reservoir, obtains reserved or non-reserved rights to the water flowing into the reservoir and to the water stored there. A study could explore other questions, particularly state law questions on smaller storage facilities like farm ponds, county lakes, and watershed district structures. For example, can a landowner under Kansas law obtain a water right to diffused surface water to enable him to fill a farm pond; or can he obtain a right to the water in the pond after it is stored? Can a senior appropriator require a pond owner to release water collected from runoff if the appropriator can show the water would reach him on the stream in usable quantities? This latter question is particularly relevant to Bureau of Reclamation projects in western Kansas which are slowly drying up in part because of increased upstream farm pond construction and other soil conservation practices completed after impoundment of reclamation water. The only thing sure in commenting on future water problems in Kansas is that the legal questions will persist and must receive constant attention from the government, the public, and the bar.

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268 See Trelease, supra note 5, at 53, for some examples of scholarship, statutes, and cases addressing this problem.