Kansas Law Review

LEGAL CONSTRAINTS ON DIVERTING WATER FROM EASTERN KANSAS TO WESTERN KANSAS*

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I. Introduction

This Article considers several legal questions involved in the diversion of water from the relatively water-rich areas of Kansas to the drier areas. While it will focus on a project that would divert water from eastern Kansas to western Kansas, where the water table in the Ogallala Aquifer is declining to the detriment of western Kansas irrigators, there are other prospective large diversion projects, such as the proposal to divert Milford Reservoir water to the City of

1 Although there have apparently been no legal studies on the question of interbasin water transfers in the State of Kansas, Professor Shultz touched on the subject in Kansas Water Resources Board, Kansas Water Law (E. Shultz 1967) at 28 [hereinafter cited as Kansas Water Law]. There have been numerous other studies on the question generally as well as on specific proposals. For example, the National Water Commission devoted one volume of its work to interbasin transfers, but the focus there was on "major interbasin, interstate" transfers. See National Water Commission, Major Interbasin Transfers Legal Aspects, Legal Study Number 7 (R. Johnson 1971) [hereinafter cited as Johnson]. Other reports have concerned the Texas Water Plan, which would move water from east Texas and the Mississippi River to west Texas. See C. Clay, Issues and Attitudes on the Texas Water Plan (1971). The West Texas and Eastern New Mexico Plan also proposed to transport water from the Mississippi River to west Texas. See U.S. Dept. of Interior, Bureau of Reclamation, West Texas and Eastern New Mexico Import Project (1973). The Great Plains Plan would carry water from the Missouri River in northeast Nebraska west and then south to water short areas of western Nebraska, Kansas, Oklahoma, and Texas and eastern Colorado and New Mexico. See Johnson, supra at 21h. There have also been relevant articles published in various law journals. See, e.g., Oeljen, Harnsberger, & Fischer, Interbasin Transfers: Nebraska Law & Legend, 51 Neb. L. Rev. 87 (1971) [hereinafter cited as Oeljen]; Weatherford, Legal Aspects of Intergovernmental Water Diversion, 15 U.C.L.A. L. Rev. 1299 (1968).

2 Annual precipitation varies from less than 16 inches in extreme southwestern Kansas, to over 40 inches in southeastern Kansas. H. Socolofsky & H. Self, Historical Atlas of Kansas (1972) at Plate 4.

3 The U.S. Corps of Engineers and others recently studied various diversions from eastern Kansas to
Wichita. This Article does not directly consider the economic or engineering feasibility of such an endeavor. Instead, it naively presumes that those enormous difficulties can be overcome. Nor does this Article, with a few limited exceptions, recommend changes in existing laws or institutions to effectuate water transfers in Kansas. Its purpose is to explore existing state and federal laws to identify present constraints.

The Article treats two possible sources of water for transportation to western Kansas for irrigation use: the Missouri River, a navigable river that forms part of the boundary between Kansas and Missouri; and Tuttle Creek Reservoir, a U.S. Army Corps of Engineers flood control project constructed in the 1950s and located on the Big Blue River in east-central Kansas near the city of Manhattan. These two sources present different legal considerations that are essentially viewed geographically in this Article. First to be examined are the water sources in eastern Kansas. In conjunction with examining these sources, the Article will address whether the area of origin of the water, be it eastern Kansas or states upstream and downstream on the Missouri River, must be protected. Second, the transportation of the water will be scrutinized. Last, the destination in western Kansas will be examined, since the governmental entity involved with the transfer of the water will have to determine who has rights to it, in what quantity, and perhaps what priority date is applicable. The Article will conclude with a look at the various governmental institutions that might be involved.

II. GEOGRAPHICAL SETTING AND DEFINITION OF “INTERBASIN TRANSFER”

There are several river systems and basins in Kansas. The major ones are the Missouri River, which forms the border between Kansas and Missouri in the northeast corner of Kansas; the Kansas River, which enters the Missouri River at Kansas City and which has as its tributaries the Republican, Smoky Hill, Saline, Solomon, and Blue Rivers; the Arkansas River, with its tributaries the Cimarron, Verdigris, and Neosho Rivers; and the Marais Des Cygnes River. All of the rivers in Kansas actually lie in one large basin, the Mississippi River Basin, because eventually the Missouri River, the Kansas River via the Missouri, the Arkansas River, and the Marais Des Cygnes River via the Osage and the Missouri River, all flow into the Mississippi River. Thus, the term “basin” must be defined to

western Kansas under a United States Department of Commerce contract. The report has not yet been published.

1 Wichita is considering a 60-inch pipeline from Milford Reservoir to Wichita, and has applied for a reservation storage right for 60,000 acre feet of water in Milford Reservoir. Additionally, the Equus Beds Groundwater Management District, located north of Wichita, has applied for water from Milford Reservoir. Equus Beds Groundwater News (Vol. 3, No. 1, Jan. 1981). Late in 1981, several cities including Wichita, Salina, McPherson, and Abilene were considering forming a public wholesale water supply district that would take water from Milford Reservoir to the vicinity of those cities for wholesale distribution. Equus Beds Groundwater News (Vol. 4, No. 1, Jan. 1982).

2 A Corps of Engineers study shows that water diverted from the Missouri River to the Ogallala aquifer in western Kansas would require a lift of 1775 feet, due to the elevation rise. Fifteen pumping plants over 360 miles would be required. Depending on the size of the project considered (from one million to six million acre feet per year), the total “first cost,” which would include interest during construction, would range from 9.7 to 16.1 billion dollars; annual costs (interest, amortization, and pumping costs) would range from $352 to $880 per acre foot of delivered water. Equus Beds Groundwater News (Vol. 3, No. 3, July 1981).

A Bureau of Reclamation study also considered costs of water transfers within the state. See U.S. DEP’T OF INTERIOR, BUREAU OF RECLAMATION, KANSAS STATE WATER PLAN STUDIES, LONG RANGE WATER SUPPLY PROBLEMS, PHASE II (1979).
give meaning to the concept of interbasin transfer of water for purposes of this Article.

Black's Law Dictionary defines "basin" as "the entire area drained by the mainstream and its tributaries."6 Under that definition, each of the rivers in Kansas would lie in its own basin, and any transfer of water from one small river to another would constitute an interbasin transfer. Typically, however, the term is reserved for transfers from larger rivers to other river basins. Occasionally "watershed" is used synonymously with "basin." Chapter 82a of the Kansas Statutes Annotated, dealing with water rights, does not define "basin" or "watershed," but the term "watershed" is defined in Chapter 24 of the Kansas Statutes Annotated, dealing with watershed districts, as "all of the area within the state draining toward a selected point on any watercourse, stream, lake or depression."7

The important question should be whether the transfer from one basin or sub-basin to another actually removes that water from further use in the basin of origin. For example, courts in some states have held that when a person's land is located below the confluence of two streams, he cannot object to the transfer of water from one stream of the fork to the other stream of the fork since the water ultimately returns to the stream on his land.8 Similarly, if water from Tuttle Creek Reservoir were transported and used in northwestern Kansas so that any return flow would be into such Kansas River tributaries as the Smoky Hill or Solomon Rivers, that water, though transported from the Blue River Basin, is still within the larger Kansas River Basin and therefore is not lost from that larger basin. If the same water were moved from Tuttle Creek Reservoir to southwestern Kansas, however, the Kansas River Basin would lose it entirely, because any return flow would be into the Cimarron or Arkansas River Basin. In either case the water would still eventually flow into the Mississippi River and thus not be lost from the Mississippi River Basin. If water were moved to western Kansas for direct groundwater aquifer recharge, application of the same interbasin considerations might depend on the hydrogeologic characteristics of the aquifer. Some streams and rivers, for example, are linked to large groundwater aquifers; others are not.

The National Water Commission defined three types of interbasin transfers in its study of the legal aspects of such transfers.9 A type "A" transfer is a transfer from one basin to another in a totally different state. A type "B" transfer is one from a subbasin in one state to another subbasin in another state, both subbasins sharing the same major basin. A type "C" transfer is a transfer from one major basin to another major basin without crossing state lines. A transfer of water from Tuttle Creek Reservoir to either northwest Kansas or southwest Kansas, therefore, does not fit any of these classifications. Types "A" and "B" require interstate transfers; type "C" requires an intrastate transfer from major basin to major basin, and both the Kansas River Basin and the Arkansas River Basin lie in the Mississippi River Basin. A transfer from the Missouri River, since it lies

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9 Johnson, supra note 1, at 3-5.
partially in Missouri,\textsuperscript{10} might be a type "B" transfer if one deemed the water as coming from Missouri; otherwise, it too would not fit in any type described by the National Water Commission.

This Article will use the term "interbasin transfer" or "interbasin diversion" to indicate any artificial movement of water from one basin to another, even though either basin may be small and constitute a subbasin or sub-subbasin of a larger system. So defined, interbasin transportation of water already exists in Kansas in several locations, has been contemplated in at least one other location, and is being contemplated in another.\textsuperscript{11}

\textsuperscript{10} See Kan. Stat. Ann. § 82a-521 (1977), which sets the center of the channel of the Missouri River as the boundary line between Kansas and Missouri in the northeast corner of Kansas.

\textsuperscript{11} With one exception, each present interbasin transfer is intrastate. The City of Hays in west-central Kansas has a wellfield near the town of Schoenchen in the Smoky Hill Basin. The wellfield is the alluvium of the Smoky Hill River. Hays uses a pipeline to pump the water to Hays, which lies in the Big Creek watershed. Big Creek ultimately joins the Smoky Hill downstream, so any return flow from Hays is not lost by the Smoky Hill River, except between the wellfield and the confluence of Big Creek and the Smoky Hill River, a distance of approximately 20 miles.

The City of Russell lies on the boundary line of the basins of the Smoky Hill River and the Saline River, both of which are tributaries of the Kansas River. The Saline River joins the Smoky Hill at Salina, which lies approximately 70 miles east of Russell. Russell has surface water rights on Big Creek, a Smoky Hill tributary, and rights to pump from a wellfield in the Smoky Hill alluvium near the city of Pfeifer. This Smoky Hill water is pumped over a hill into Big Creek (four miles), and Big Creek water from a point several miles downstream is pumped via pipeline to the City of Russell. Since any return flow would be into either the Saline River or the Smoky Hill River, it is not lost from the original Smoky Hill Basin.

The Kansas Fish and Game Commission has an appropriation right for recreational use in the Cheyenne Bottoms near Great Bend. The Commission has an appropriation right for water from the Arkansas River from which it pumps water to Walnut Creek via the Koen Ditch; from Walnut Creek it is pumped to Cheyenne Bottoms and from there it flows to Cow Creek, a tributary of the Arkansas River. The water is thus pumped through three subbasins and then returned to the basin of origin, but at a point 20 or 30 miles downstream from the original diversion point on the Arkansas River.

One of the water supplies of the City of Wichita is the Cheney Reservoir, located on the North Fork of the Ninescach River, west of Wichita. The North Fork joins the South Fork of the Ninescach River about 10 miles below the Cheney Dam, and the Ninescach River then flows into the Arkansas River approximately 25 miles south of Wichita. A pipeline carries water from Cheney Reservoir east to Wichita, thus removing the water from the Ninescach River system; any unconsumed water is then discharged into the Arkansas River in Wichita.

Wichita has also proposed another project involving a subbasin transfer. The Chikasaki Project would involve a dam in Kansas near the Oklahoma border on the Chikasaki River. The Chikasaki enters the Salt Fork of the Arkansas River in Oklahoma, which in turn empties into the Arkansas River just south of Ponca City, Oklahoma. The plan is to pipe water from this reservoir northward to Wichita across the Ninescach River basin. Like the Cheney project mentioned above, any return flow from Wichita would be directly into the Arkansas River, so while the portion of the subbasin from the Chikasaki Reservoir to the point where the Salt Fork of the Arkansas River meets the Arkansas River would lose the water, ultimately the un Consumed water finds its way to the Arkansas River.

Another proposed transfer was considered in the mid-1960s but never constructed, apparently due to the expense involved. This transfer would have involved pumping water from the Republican River just below the Harlan County Reservoir in Nebraska and piping it across the state line to be used by the cities of Phillipsburg, Kensington, and Smith Center. The transfer would have been a "type B" transfer, since both the Republican River and the North Fork of the Solomon River eventually drain into the Kansas River in eastern Kansas. No separate legal study was done on this proposal, but the Bureau of Reclamation wrote a report. U.S. Dept. of Interior, Bureau of Reclamation Region 7, Phillipsburg-Smith Center Unit, Nebraska-Kansas (Municipal and Industrial Water Supply) Solomon Division, Missouri River Basin Project, Investigations Status Report (Jan. 1966).

A "type B" diversion may exist in Kansas. The Frontier Canal diverts water from the Arkansas River in Colorado west of the state line only. See Kan. Stat. Ann. § 82a-529, Arkansas River Compact, Art. VI(B) (1977). Since this transfer is not from one subbasin to another subbasin within a larger basin, however, it is not exactly the type contemplated by the National Water Commission's definition of a "type B" interbasin transfer. It is more properly deemed an interstate, intrabasin transfer.

For other legal studies of interbasin diversions, see supra note 1. The Missouri River Basin Commission has suggested the need for interbasin transfers within the Missouri River Basin to replenish water-short
III. SUMMARY OF RELEVANT KANSAS WATER LAW

A. The Kansas Constitution

Unlike the constitutions of some of the western states, the Kansas Constitution is silent on water rights. Without constitutional provisions concerning water rights, most of the relevant water law of Kansas is found in the Kansas Statutes Annotated. Additionally, there are a few Kansas Supreme Court cases of interest. The Kansas Constitution is not wholly irrelevant to this issue, however. For almost one hundred years, the constitution prohibited the state from carrying on any internal improvements except highways. An amendment, passed in 1957 by the legislature and ratified in 1958 by the people, added an exception to this general prohibition: "[the state] may be a party to flood control works and works for the conservation or development of water resources."

B. Water Rights

The water rights law for streams may generally be divided into two major classifications—riparian and prior appropriation. Riparian law exists primarily in the eastern United States. Prior appropriation is the law for the states west of and including the tier of states from Texas north to the Dakotas. Under riparian law, a person owning land on a stream or through which a stream runs is said to be riparian to the stream. That owner has a right to put the water to a reasonable use simply by virtue of the geographical location of his property on the stream. He may use the water or not, as he wishes, but he neither gains a vested and unchanging right by actual use, nor loses it by nonuse.

The contrasting prior appropriation law provides that only a person who diverts water for a beneficial use obtains a water right. An appropriator who diverts the water need not own land adjacent to the stream. Furthermore, an appropriator who has obtained a water right through beneficial use can lose it through nonuse. To determine priority among competing users during periods of low flow, the doctrine "first in time, first in right" applies. Thus a "prior" or "senior" appropriator may force a "junior" appropriator to shut down if doing so will provide the amount, in whole or in part, of the prior appropriator's water right.

The doctrine of prior appropriation is applied to groundwater in some states.

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12 The Colorado Constitution, for example, states that "[t]he right to divert the unappropriated waters of any natural stream to beneficial uses shall never be denied." COLO. CONST. art. XVI, § 6. The Idaho Constitution declares: "The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied. . . ." IDAHO CONST. art. 15, § 3. The Wyoming Constitution states: "The water of all natural streams, springs, lakes or other collections of still water, within the boundaries of the state, are hereby declared to be the property of the state." WYO. CONST. art. 8, § 1.


14 KAN. CONST. art. 11, § 9.
Other states use one of the following doctrines: the “absolute ownership” theory, used in Texas, under which a landowner may use the water under his land to the full extent regardless of its effect on his neighbors; the “reasonable use” theory, which provides that if the landowner puts groundwater to a reasonable beneficial use, he may continue to do so even if his use injures his neighbors; and the “correlative rights” doctrine, found in California, which provides that landowners’ rights are correlative and that each owner must use the groundwater with respect for the rights of his neighbors.

Kansas is a prior appropriation state. Water rights are obtained by putting the water to beneficial use, not merely by having an advantageous geographical location along a stream or over a groundwater source. The Kansas prior appropriation law applies both to surface water and groundwater. Prior to 1945, Kansas was a riparian, reasonable use, state for surface water and an absolute ownership state for groundwater.16

The 1945 Kansas Water Appropriation Act17 was a significant change in Kansas water law. The key section of the Act dedicates “[a]ll water within the state of Kansas . . . to the use of the people of the state, subject to the control and regulation of the state in the manner herein prescribed.”18 The regulatory scheme in the Act requires a person desiring to acquire a water right for any use, except domestic, to apply to the state for a permit to appropriate water.19 The Chief Engineer of the Board of Agriculture’s Division of Water Resources is the regulatory official who passes on these applications. The standards the Chief Engineer uses in passing on an application are that the proposed use may neither “impair a use under an existing water right nor prejudicially and unreasonably affect the public interest.”20 If the Chief Engineer approves the application, he must grant a permit so that the applicant can begin construction of his diversion works and proceed to perfect his water right.21 After receiving the permit, the applicant builds the diversion works and diverts and puts the water to beneficial use. Once the works are completed, the user notifies the Chief Engineer, who, after an inspection, issues a “certificate of appropriation,” the document that evidences a perfected appropriation right in Kansas.22 The priority date of the appropriation right, however, dates from the receipt of the original application by the Chief Engineer’s office.23

The Water Appropriation Act did not simply cut off the rights of those landowners who were adjacent to a stream or overlying groundwater in 1945. If they were putting the water to beneficial use on June 28, 1945, this use was preserved and protected by the Act in the form of a “vested right,” a right with a quantity defined as the “maximum quantity used.”24 Both vested rights and appropria-
tion rights are water rights under Kansas law, and both give the owner a right to divert and use water. Also, holders of either type of water right may enjoin others without such rights from diverting water if those diversions would impair their water rights.

A person who had a common law riparian or groundwater right on June 28, 1945, based solely on geographical proximity to the water source, but who was not putting the water to a beneficial use, simply lost that right under the Act. The Kansas Supreme Court has found that this cutting off of both surface water and groundwater rights was constitutional. The Act does, however, give these “common-law claimants” a cause of action for damages caused by appropriators.

Several other portions of the Act are germane to the present discussion. First, vested rights and appropriation rights are real property rights, appurtenant to and severable from the land. Therefore, the rights themselves are transferable, and the point of diversion and the place and manner of use may be physically changed with permission of the Chief Engineer. Second, any water right is deemed abandoned and terminated when, without due and sufficient cause, no use is made of water for three successive years. Third, until 1978, one who diverted water for nondomestic use without a vested or appropriation right was penalized only by not obtaining a water right with a priority date that would be protected against later appropriators. The 1977 legislature amended the Act to provide that, with certain limited exceptions, such appropriations without prior approval are now expressly prohibited, and one who does so divert water may be criminally prosecuted. Last, the Act lists preferences for water uses in case of conflict between domestic, municipal, irrigation, industrial, recreation, and water power uses. This list is followed by the statement that it is still the date of priority, and not the order on the preferential listing, that determines the right to divert. The Kansas Supreme Court has never determined exactly what this ordering of preferences means.

Kansas has several federally constructed, multipurpose reservoirs. Federal law allows states to acquire municipal and industrial water supplies from conserva-

from the date of the act, June 28, 1945, making conflicts between the two vested right holders equal as far as their dates are concerned. Alternatively, the priority date could conceivably date from the time the holder first diverted the water. Another possibility when vested rights conflict would be to have the conflict resolved under the riparian doctrine of reasonable use, since that was the law at the time the vested rights attached.

25 Id. § 82a-701(g).
26 Id. § 82-717a.
28 KAN. STAT. ANN. §§ 82a-716, -717 (1977). There are no appellate court cases in Kansas that discuss the rights of the common-law claimants.
29 Id. § 82a-701(g).
30 Id. § 82a-708b.
31 Id. § 82a-718.
34 KAN. STAT. ANN. § 82a-707(b) (1977).
35 See KANSAS WATER RESOURCES BOARD, REPORT ON THE LAWS OF KANSAS PERTAINING TO THE BENEFICIAL USE OF WATER, BULL. NO. 3, (E. Shurtz, Nov. 1956) at 118-21 for a discussion of the possible meaning of the order of preferences found in KAN. STAT. ANN. § 82a-707(b) (1977).
tion storage in some reservoirs.\textsuperscript{36} To obtain this water, the Kansas Water Office, formerly the Kansas Water Resources Board, negotiates and enters into agreements with the federal government.\textsuperscript{37} The Water Office must also file a notice with the Chief Engineer to obtain these “water reservation rights,” akin to, but different from, other kinds of water rights in Kansas.\textsuperscript{38} Private persons, corporations, and municipalities may contract with the Water Office to obtain the water stored in the reservoirs.\textsuperscript{39} Once obtained, a water reservation right essentially gives the Water Office the right to store water flowing into a reservoir. Since the right takes its priority according to the time of filing with the Chief Engineer, other downstream appropriation and vested rights may be senior to the reservation right held by the Water Office. In cases when the inflow to the reservoir is insufficient to deliver the full amount of water to downstream senior right holders, water in an amount equal to the inflow has to be bypassed to satisfy the downstream rights.

\textit{C. Interstate Compacts}

Kansas has entered into several interstate compacts, some of which are relevant to a possible interbasin transfer of water from eastern Kansas to western Kansas. The Republican River Compact\textsuperscript{40} was entered into in 1942 by Colorado, Kansas, and Nebraska, and divides the Republican and its tributaries among the three states. The Big Blue River Compact,\textsuperscript{41} signed in 1971, does the same for the Big Blue River between Kansas and Nebraska. Since the Big Blue River flows into the Tuttle Creek Reservoir, this compact is probably the most important to the subject addressed by this Article. Other existing compacts are the 1948 Arkansas River Compact\textsuperscript{42} between Colorado and Kansas; the 1965 Arkansas River Compact\textsuperscript{43} between Kansas and Oklahoma; and the 1949 Missouri River Boundary Line Agreement\textsuperscript{44} between Kansas and Missouri.

\textit{D. Groundwater Management Districts}

Since the proposal treated in this Article envisions a transfer of water from eastern to western Kansas, the groundwater management districts in western Kansas should be mentioned. The 1972 Kansas Legislature passed legislation providing for the establishment of groundwater management districts in an effort to promote local control over depleting groundwater resources.\textsuperscript{45} The districts are established through a detailed statutory procedure that includes filing a declaration of intent with the Chief Engineer, filing with the Secretary of State a petition signed by at least fifty percent of the eligible voters in the proposed district, and obtaining the Chief Engineer’s approval of the petition.\textsuperscript{46} To date, five

\begin{itemize}
  \item \textsuperscript{36} Water Supply Act of 1958, \S\ 301, 43 U.S.C. \S\ 390b (1976).
  \item \textsuperscript{37} \textit{Kan. Stat. Ann.} \S\S\ 82a-1301 to -1320 (1977).
  \item \textsuperscript{38} \textit{Id.} \S\ 82a-1303.
  \item \textsuperscript{39} \textit{Id.} \S\ 82a-1301(d), -1305.
  \item \textsuperscript{40} \textit{Id.} \S\ 82a-518.
  \item \textsuperscript{41} \textit{Id.} \S\ 82a-529.
  \item \textsuperscript{42} \textit{Id.} \S\ 82a-520.
  \item \textsuperscript{43} \textit{Id.} \S\ 82a-528.
  \item \textsuperscript{44} \textit{Id.} \S\ 82a-521.
  \item \textsuperscript{45} \textit{Id.} \S\S\ 82a-1020 to -1035 (1977 & Supp. 1981).
  \item \textsuperscript{46} \textit{Id.} \S\S\ 82a-1022 to -1025 (1977).
\end{itemize}
districts have been established in the state. Three of these overlie large parts of the Ogallala Aquifer.\textsuperscript{47}  
The statutes also describe the powers of the groundwater management districts. The most important of these are the power to adopt and enforce reasonable standards and policies relating to the conservation and management of groundwater within the district;\textsuperscript{48} to recommend to the Chief Engineer rules and regulations necessary to implement the policies of the district;\textsuperscript{49} to recommend to the Chief Engineer the establishment of "intensive groundwater use control areas" in locations within a district where there is excessive lowering of the water table;\textsuperscript{50} to construct works necessary for recharge, storage, distribution or importation of water;\textsuperscript{51} and to assist in the management of storage, groundwater recharge, and surface water.\textsuperscript{52}

\textbf{E. Irrigation Districts}

Kansas statutes provide for two types of irrigation districts. The first irrigation district law was passed in 1891.\textsuperscript{53} Apparently, only one district was ever established under this Act, which provided that the district boundaries be within one county. That district soon became defunct.\textsuperscript{54}

Five presently functioning districts were established under the second act.\textsuperscript{55} There is no one-county limitation on these irrigation districts, and all of the districts cover parts of at least two counties. Owners of irrigable lands within a proposed district may form these districts by petitioning the Chief Engineer. Once approved, the district is a corporate body with the powers and responsibilities of other public corporations in Kansas. These powers include the power of eminent domain, the power to issue bonds, and the power to levy taxes and assessments.\textsuperscript{56}

The main purpose served by the change in the old irrigation district law was enabling the new districts to negotiate and enter into agreements with the federal government, particularly the Bureau of Reclamation of the Department of Interior. The Bureau of Reclamation, in constructing various reclamation projects in the state, would negotiate only with organized irrigation districts for the delivery of water from reclamation reservoirs. Thus, the five functioning

\textsuperscript{47} See Peck, \textit{Kansas Groundwater Management Districts}, 29 Kan. L. Rev. 51, 54-60 (1980) for a discussion of the legal problems of these districts and a map showing their locations.

\textsuperscript{48} \textbf{KAN. STAT. ANN.} § 82a-1028(n) (Supp. 1981).

\textsuperscript{49} \textit{Id.} § 82a-1028(o).

\textsuperscript{50} \textit{Id.} § 82a-1036.

\textsuperscript{51} \textit{Id.} § 82a-1028(g).

\textsuperscript{52} \textit{Id.} § 82a-1028(m).


\textsuperscript{54} \textbf{GOVERNOR'S TASK FORCE ON WATER RESOURCES, INTERIM REPORT 21-22} (Dec. 1977). \textit{See also KANSAS WATER RESOURCES BOARD, SPECIAL WATER DISTRICTS IN KANSAS 11-13} (Sept. 1967).

\textsuperscript{55} Act of Mar. 31, 1941, ch. 262, 1941 Kan. Sess. Laws 382, \textit{amended by Act of Apr. 5, 1947}, ch. 284, 1947 Kan. Sess. Laws 471 (codified as amended at \textbf{KAN. STAT. ANN.} §§ 42-701 to -730 (1981)). These five districts are the Alemna District in Norton and Phillips Counties and below Norton Reservoir; the Kirwin District in Phillips, Smith, and Osborne Counties and below Kirwin Reservoir; the Webster District in Rooks and Osborne Counties and below Webster Reservoir; the Cedar Bluff District in Trego and Ellis Counties and below Cedar Bluff Reservoir; and the Kansas-Bostwick District in Jewell and Republic Counties and below Lovewell Reservoir and the Harlan County (Nebraska) Reservoir. The sixth and seventh districts, connected with Kanopolis and Glen Elder Reservoirs, have never delivered water.

\textsuperscript{56} \textbf{KAN. STAT. ANN.} § 42-705 (1981).
irrigation districts act with the Bureau of Reclamation to provide irrigation to the lands within the districts.

F. Public Wholesale Water Supply Districts

In 1977 the Kansas Legislature passed an act\textsuperscript{57} that allows creation of public wholesale water supply districts for the purpose of wholesaling water to participating public agencies. Such a district would obtain water on a scale much larger than is feasible for smaller agencies such as municipalities, rural water districts, and water distribution companies, and in turn would sell the water to these participating agencies.\textsuperscript{58} The districts are created when two or more public agencies contract to organize such a district, and such contracts must be approved by the attorney general before they will take effect.\textsuperscript{59} To date there have been five districts formed in the state.

These districts have statutory powers to sue and be sued; to contract with various agencies, both state and federal, and with political subdivisions and districts for planning, development, construction, acquisition, and operation of water facilities; to purchase or condemn land; and to acquire and construct the various components of water distribution systems.\textsuperscript{60}

G. State Water Plan

The State Water Planning Act,\textsuperscript{61} originally passed in 1963 as the State Water Plan Act,\textsuperscript{62} is a broad legislative statement of policy concerning water resources in Kansas. It enables the state to develop long range goals and then periodically to reevaluate these goals by updating the Plan. The Plan states the recommendations of the Kansas Water Office for development of the water resources of the state and describes existing as well as proposed projects. The Kansas Water Office must consider the following policies in formulating the Plan: (1) ensuring management, conservation, and development of state water resources for the benefit of the state as a whole; (2) maximizing benefits derived from development of reservoir sites for the combined purposes of flood control, water supply storage, and recreation;\textsuperscript{63} (3) enhancing the general welfare of the state; (4) ensuring all appropriation and other water rights under the water appropriation act and the state water plan storage act; (5) exploring alternative plans, programs, and projects for effecting water resource management, conservation, and development; and (6) ensuring the maintenance, preservation, and protection of the sovereignty of the state over all water within the state.\textsuperscript{64}

If a person\textsuperscript{65} proposes any action that conflicts with the Plan, the Water Office has the power to approve, conditionally approve, or prohibit such action.\textsuperscript{66}

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\textsuperscript{59} Id. § 19-3547.

\textsuperscript{60} Id. § 19-3552.

\textsuperscript{61} Id. §§ 82a-901a to -926 (1977 & Supp. 1981).


\textsuperscript{63} Note the conspicuous absence of irrigation as an express purpose.


\textsuperscript{65} The statute defines a person as almost anyone except the federal government. See id. § 82a-902.

\textsuperscript{66} Id. § 82a-908 (1977).
Interestingly, however, the state does not require that person to notify the Water Office of these conflicting plans.

The Water Planning Act also provides that the state may give financial assistance to public corporations to defray part of the costs of installing certain water development projects, but these projects must generally benefit the state and provide general flood control beyond the boundaries of the public corporation.\textsuperscript{67} The Act also gives the Water Office the power to request the inclusion of conservation storage features for water supply use in federal projects.\textsuperscript{68}

The Water Plan itself was adopted by the legislature in 1965 and amended in 1981.\textsuperscript{69} It includes the following relevant provisions:

(1) Long-range goals, such as the development of sufficient supplies of water for beneficial purposes.\textsuperscript{70}

(2) Policies for the achievement of the long-range goals such as the design of proposed storage structures for the protection of agricultural areas;\textsuperscript{71} the development of adequate water storage to meet present and anticipated water uses through planning and construction of multipurpose reservoirs;\textsuperscript{72} and the development of groundwater recharge projects.\textsuperscript{73}

(3) A statement that Kansas recognizes its responsibility and jurisdiction to protect and control all water affecting the state, including that water impounded in federal government projects;\textsuperscript{74} but that nothing in the Act shall be deemed as an impairment of any rights, powers, or jurisdiction of the United States.\textsuperscript{75}

(4) A statement that the Water Authority may enter into agreements with the federal government to include conservation storage features for water supply use in any project that has been planned, authorized, or constructed by the federal government.\textsuperscript{76}

(5) A listing of the state’s “major reservoirs,” their long-range storage allocations for flood control and conservation, and their long-range purposes. For example, Tuttle Creek is listed with 1,933,000 acre feet of flood control storage and 413,000 acre feet of conservation and sediment storage, for a total storage of 2,346,000 acre feet, the largest in the state. The long-range purposes for Tuttle Creek are flood control, municipal and industrial water supply, streamflow regulation, recreation, and navigation. Conspicuously absent from these uses is irrigation.\textsuperscript{77}

\textsuperscript{67} Id. § 82a-909.

\textsuperscript{68} Id. § 82a-911.


\textsuperscript{70} Kan. Stat. Ann. § 82a-927 (Supp. 1981). A listing of such purposes was deleted by the 1981 legislature. That list included, among other things, such purposes as irrigation and agriculture, and the efficient, economic distribution of water supplies in the state.

\textsuperscript{71} Id. § 82a-928(4).

\textsuperscript{72} Id. § 82a-928(6).

\textsuperscript{73} Id. § 82a-928(15).

\textsuperscript{74} Id. §§ 82a-929, -930 (1977).

\textsuperscript{75} Id. § 82a-942.

\textsuperscript{76} Id. § 82a-934 (Supp. 1981). See supra text accompanying notes 36-37.

IV. LEGAL PROBLEMS IN OBTAINING WATER AT THE SOURCE

A. Protection of the Place of Origin

1. In General

The concept of protecting the area of origin has arisen in proposals involving potential interbasin transfers. This concept is based on the notion that "a region is entitled to the economic benefits which it may derive from its indigenous natural resources." Whether the concept exists in some legal form is the inquiry here, although one must at least recognize the political power of the notion. Furthermore, the notion itself probably exists in the minds of the inhabitants of any mineral-rich area when a proposal is made to deprive those inhabitants of the minerals. It is hard to imagine that the various downstream users on the Kansas River below Tuttle Creek Reservoir, such as cities, irrigators, power companies, and water supply districts, as well as the State of Missouri, would not put up a political as well as a legal battle on any proposals that would remove some water completely from the Kansas River Basin. Since this Article concludes that interbasin diversions may be legally possible, the political weapon may well be the more formidable. These perceptions of ownership of local water can be translated into political reality. For example, in the 1960s' proposals to divert water from the Columbia River Basin in the Pacific Northwest to the Colorado River Basin in the Southwest, a degree of "origin protection" was built into the project by Congress. Certainly, when considering an interstate, interbasin transfer such as the Pacific Northwest to Southwest diversion proposal, Congress has to protect the place of origin in order to make the project politically palatable.

States' attempts to protect mineral supplies for use only within their own boundaries have had mixed results. In the early case of Hudson County Water Co. v.

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70 Clark, Northwest-Southwest Water Diversion—Plans and Issues, 3 WILAMETTE L.J. 215, 249 (1965) [hereinafter cited as Clark].
71 For example, on May 9, 1980, the Kansas City Times newspaper ran an editorial on the proposal to transfer Missouri River water to western Kansas, titled Where There, That's Our Water, which concluded with this paragraph:

Nature didn't distribute water supplies equitably on the American West, but man can talk about doing so. But in a region where water rights can be a shooting matter, a lot of hard questions are going to be asked—and not just about cost-effectiveness—on any new major water diversion scheme.


Other recent proposals have also received newspaper coverage. One plan proposes a 288-mile water pipeline from the Oahe Reservoir in central South Dakota to the coal fields near Gillette, Wyoming. This water would be used as the transporting agent in coal slurry pipelines, and such a diversion of water would remove the water entirely from the Missouri River Basin. The October 28, 1981, edition of the Kansas City Times stated that Missouri Attorney General Ashcroft had requested the United States Secretary of Interior to block the diversion temporarily, to give Missouri more time to decide whether to sue to enjoin the diversion. And, a bill was introduced into Congress that would prohibit all water diversions out of state until all states within the basin agreed to such diversion by compact. See H.R. 5278, 97th Cong., 1st Sess. (Dec. 16, 1981).

Another example of the strong feelings of water ownership is the large turnout at the Nebraska legislative hearings on bills that would have changed the Nebraska law that prohibited interbasin transfers. In 1943, over 700 persons crowded into the Public Works Committee hearings; and in 1947, and again in 1953, approximately 1000 persons attended the hearings. Oeltjen, supra note 1, at 98-103.

80 In late February, 1982, a group called the Kansas River Alliance was formed to influence decisions on water related matters. The Alliance will include cities, industries, and water districts as members. Topeka Capital Journal, Feb. 24, 1982, at 11, col. 1.
81 Clark, supra note 78, at 248-49.
McCarter\textsuperscript{82} the United States Supreme Court upheld a New Jersey statute that forbade the exportation of fresh water for use in another state. Writing for the majority, Justice Oliver Wendell Holmes stated:

The constitutional power of the state to insist that its natural advantages shall remain unimpaired by its citizens is not dependent upon any nice estimate of the extent of present use of speculation as to future needs. . . . [The state] finds itself in possession of what all will admit to be a great public good, and what it has it may keep and give to no one a reason for its will.\textsuperscript{83}

In the case of Altus v. Carr,\textsuperscript{84} however, a different result is found. A water-needy Oklahoma city contracted with a Texas landowner to purchase the subsurface water rights to the land, intending to pump and pipe the water across the state line for its municipal supply. The State of Texas attempted to block this move by passing legislation requiring that any transfer of Texas groundwater outside the state be specifically authorized by an act of the Texas Legislature. The Federal District Court for the Western District of Texas found that the Texas statute violated the commerce clause.\textsuperscript{85} Similar statutes still exist in some states, however. Colorado, for example, flatly prohibits the transportation of any Colorado water into another state for use there.\textsuperscript{86} Other states, including Kansas, Idaho, Montana, and Wyoming,\textsuperscript{87} permit interstate diversions if the sister state reciprocates or if the legislature specifically authorizes the diversions.

When dealing with purely intrastate diversions, the interstate legal questions are no longer as relevant. Some states have legislatively attempted to protect areas of origin within the state. Until 1981, Nebraska had statutes that appeared to prohibit some interbasin transfers of water, but to authorize diversions of seventy-five percent of the flow of major Nebraska streams.\textsuperscript{88} In 1936 the Nebraska Supreme Court found that these statutes prohibited the use of Platte River Basin water in the Republican and Blue River Basins.\textsuperscript{89} The statutes were recently challenged again, and the Nebraska Supreme Court overruled its earlier decision and held that unappropriated surface water can be the subject of an interbasin transfer "except when such diversion is contrary to the public interest."\textsuperscript{90} The 1981 Nebraska Legislature amended the statutes to incorporate this "public interest" requirement for all appropriations.\textsuperscript{91} With respect to diversions to other river basins, it amended the statutes to require the Director of Water Resources

\textsuperscript{82} 209 U.S. 349 (1908).
\textsuperscript{83} Id. at 356-57.
\textsuperscript{85} A more recent case is State ex rel. Douglas v. Spohase, 208 Neb. 703, 305 N.W.2d 614 (1981), which involved a person owning land on both sides of the Nebraska-Colorado state line. That person was pumping water from a well on the Nebraska side and using the water to irrigate his Colorado land. The Nebraska Supreme Court affirmed the granting of an injunction against further use in Colorado, on the grounds that there was no violation of the commerce clause, and that Nebraska’s conditioning of interstate transfers of groundwater on reciprocal statutes in Colorado was valid under due process attacks.
\textsuperscript{86} COLO. REV. STAT. § 37-81-101 (1973).
\textsuperscript{87} KAN. STAT. ANN. § 82a-726 (1977); IDAHO CODE §§ 42-401 to -409 (1977 & Supp. 1980); MONT. CODE ANN. § 85-1-121 (1979); WYO. STAT. §§ 41-3-105, -4-104 (1977).
to consider certain specific factors when passing on a proposed interbasin transfer.\textsuperscript{92} Colorado law attempts to protect its western slope areas by providing that western slope exports may not impair “present appropriations of water and in addition thereto prospective uses of water for irrigation and other beneficial consumptive use purposes, including consumptive uses for domestic, mining and industrial purposes, within the natural basin of the Colorado river.”\textsuperscript{93} In developing various water plans, the California Legislature enacted basin protection legislation that prohibits depriving the county of origin of any water necessary for the development of the county; impairing the water rights of a watershed, area, or the inhabitants; and exchanging of water between watersheds unless the water requirements of the exchanging watershed are first and at all times met and satisfied to the extent that the requirements would have been met were the exchange not made.\textsuperscript{94} Texas has a constitutional provision that protects basins of origin from interbasin transfers until the needs of the basin for the next fifty years are guaranteed.\textsuperscript{95} Oklahoma protects an area of origin by requiring the establishment of “sufficient reserves” to take care of present and future needs.\textsuperscript{96}

2. In Kansas

   a. Big Blue River Compact Constraints

   As noted in the summary of relevant Kansas water law,\textsuperscript{97} the Kansas Constitution says nothing about water rights, and there is neither an express prohibition against a basin transfer nor a protection of origin clause. The general water-related statutes do not proscribe interbasin transfers. Kansas case law is also devoid of any explicit mention of basin transfers.

   A potentially important statute relating to “transbasin diversions,” however, is found in the Kansas-Nebraska Big Blue River Compact.\textsuperscript{98} Since this Compact affects the two main streams feeding Tuttle Creek Reservoir in Kansas, and since Tuttle Creek Reservoir is being considered as one of the two main sources of water in this Article, any agreement concerning transbasin diversions would be extremely important. Section 5.4 of the Compact reads as follows:

   \textit{5.4 Transbasin diversion.} In the event of any importation of water into the Big Blue river basin by either state, the state making the importation shall have exclusive use of such imported water, including identifiable return flows therefrom. \textit{Neither state shall authorize the exportation from the Big Blue

\textsuperscript{92}\textit{Id.} \textit{§ 6, 1981 Neb. Laws at 956-57.} These factors include (1) the economic, environmental and other benefits of the proposed interbasin transfer and use; (2) any adverse impacts of the proposed interbasin transfer and use; (3) any current beneficial uses being made of the unappropriated water in the basin of origin; (4) any reasonably foreseeable future beneficial uses of the water in the basin of origin; (5) the economic, environmental, and other benefits of leaving the water in the basin of origin for current or future beneficial uses; (6) alternative sources of water supply available to the applicant; and (7) alternative sources of water available to the basin of origin for future beneficial uses. This section further provides that the application shall be denied if the benefits to the state from granting the application do not outweigh the benefits to the state from denying the application.


\textsuperscript{94}\textit{Cal. Water Code} \textit{§§ 10505, 11461, 11463 (West 1971).}

\textsuperscript{95}\textit{Tex. Const. art. III, § 49-d (1962, amended 1966).}


\textsuperscript{97} \textit{See supra} text accompanying notes 12-14.

\textsuperscript{98}\textit{Kan. Stat. Ann.} \textit{§§ 82a-529 (1977).} The 1971 Compact apportions the water of the Big Blue River and its tributaries and the wells pumping from the alluvia. \textit{Id.}
river of water originating within that basin without the approval of the administration.99

The administration referred to in the Compact is a board composed of one ex officio member and one advisory member from each state, plus a federal member.100 The federal member has no vote, and each state is given one vote. Thus, one state can effectively veto an action of the other state. This means that if Kansas proposed the exportation of water from the Tuttle Creek Reservoir to western Kansas, Nebraska could, via this compact, veto the proposal.

Why would Nebraska ever veto such a proposal? After all, this provision was probably included in the Compact for the benefit of Kansas, the downstream user. Nebraska might veto the exportation of water out of the basin by Kansas for one of two reasons. First, Nebraska may simply object to the idea of allowing precious water into the Kansas part of the Big Blue Basin, only to see Kansas ship the water west, perhaps even out of the larger Kansas River Basin and into the Arkansas River Basin, where it would be diverted from the Kansas and the Missouri River Basins entirely. Second, at least until recently Nebraska was apparently philosophically opposed to interbasin transfers, as evidenced by the statutory limitations on such transfers.101 The Nebraska Supreme Court may have altered this attitude,102 and the recent legislative change103 now ostensibly sanctions interbasin transfers. Yet the strict statutory requirements to be met before such a transfer is made actually appear to be more of a stumbling block than a sanction. It is therefore possible that Nebraska might, as a matter of principle, veto such a transfer by Kansas, particularly if the transfer would fail under an application of the factors in Nebraska's law. The Compact could, however, be amended or terminated through appropriate action of the legislatures of both states.

b. Prior Appropriation Law and Other Legal Constraints

Although there are no express prohibitions against basin transfers in the Kansas statutes other than the provision in the Big Blue River Compact, the appropriation law itself could provide support or limitations to diversions of water from the east to the west. As a general rule, the eastern states' riparian doctrine of water rights104 attempts to protect those whose land is advantageously located near a surface water source. Since the removal of water from a basin would deprive downstream users of their equal rights to that water, the riparian rights law generally prohibits transfers out of the basin.105

In prior appropriation states like Kansas, just the opposite is the general rule. As stated in the early Colorado case of Coffin v. Left Hand Ditch Co.:

In the absence of legislation to the contrary, we think the right to water acquired by priority of appropriation thereof is not in any way dependent upon the locus of its application to the beneficial use designed. . . . [I]t would be an ungenerous and inequitable rule that would deprive one of

99 Id. (emphasis added).
100 Id. § 3.2.
101 See supra text accompanying note 88.
102 See supra text accompanying note 90.
103 See supra notes 91 & 92.
104 See supra notes 15-39 and accompanying text.
105 See Oeltjen, supra note 1, at 89, 90.
its benefit simply because he has . . . carried the water from one stream over an intervening watershed and cultivated land in the valley of another.¹⁰⁶

Since there are no contrary statutes in Kansas, Kansas would probably follow the general rule, making diversions out of the basin of origin possible.¹⁰⁷

Furthermore, the Kansas Appropriation Act contains provisions that indicate that water may be transported away from its point of diversion. First, a water right in Kansas is defined as a real property right, appurtenant to and severable from the land.¹⁰⁸ Second, the owner of a water right may, with prior permission of the Chief Engineer, change the place of use, the point of use, and the use itself.¹⁰⁹ The “persons” who may apply for permits to appropriate water are defined in the statute not only as natural persons, but also as organizations, corporations, municipalities, and agencies of the state or federal government.¹¹⁰ Thus, within certain constraints,¹¹¹ a state or federal agency could obtain a permit for eastern Kansas water and transport it to the west to irrigate land directly or to replenish groundwater supplies for irrigation.

There are several potential legal problems, however, stemming from both Kansas and federal law. First, the state or federal agency would have to find unappropriated water to appropriate.¹¹² Conceivably, twenty to thirty years from now there may no longer be any water for the agency to appropriate. If there were no unappropriated water, the agency would have to condemn existing water rights, either vested or prior appropriation, and thus would need the legal right to condemn property. In Kansas, municipalities have condemnation power, including the power to condemn water rights.¹¹³ Also, certain special districts, such as groundwater managements districts,¹¹⁴ irrigation districts,¹¹⁵

¹⁰⁶ 6 Colo. 443, 449 (1882) (emphasis added). The United States Supreme Court has recognized this rule. In Wyoming v. Colorado, 259 U.S. 419 (1922), Wyoming objected to Colorado’s plan to transport part of the Laramie River to another watershed, thus cutting down on the amount of water flowing into Wyoming. The Supreme Court stated:

The objection of Wyoming to the proposed diversion on the ground that it is to another watershed, from which she can receive no benefit, is also untenable. The fact that the diversion is to such a watershed has a bearing in another connection, but does not in itself constitute a ground for condemning it. In neither state does the right of appropriation depend on the place of use being within the same watershed. Diversions made from one watershed to another are commonly made in both states and the practice is recognized by the decisions of their courts.

¹⁰⁷ Id. at 466.

¹⁰⁸ KAN. STAT. ANN. § 82a-701(g) (1977).

¹⁰⁹ Id. § 82a-708b.

¹¹⁰ Id. § 82a-701(a).

¹¹¹ See supra notes 20-23 and accompanying text.

¹¹² Whether there is water available now will be discussed in the sections on Tuttle Creek and the Missouri River. See infra notes 170-311 and accompanying text.

¹¹³ KAN. CONST. art. 12, § 5, provides that “(b) Cities are hereby empowered to determine their local affairs and government.” KAN. STAT. ANN. § 26-201 (1981) provides that “[a] city shall have the right to acquire by condemnation any interest in real property, including the fee simple title thereto.” KAN. STAT. ANN. § 12-809 (Supp. 1981) provides:

The governing body of any city shall have the power and authority to dam any river not navigable, to condemn and appropriate in the name and for the use of the city any such land or lands located in or out of the corporate limits thereof, as may be necessary for the construction and operation of waterworks, and to condemn, appropriate and divert the water from such river, or so much thereof as may be deemed necessary for such purpose.


¹¹⁵ Id. § 42-368g (1981).
and public wholesale water supply districts,\textsuperscript{116} have condemnation powers. But these special districts probably would not be the entities involved. An agency would probably be created to acquire water rights in the east and to transport the water west. The various individuals, cities, and industries in western Kansas would then acquire the water rights from the agency.\textsuperscript{117} Another problem is that not all appropriation rights could necessarily be condemned. There are at least two Kansas statutes that indicate that municipal or domestic rights could not be condemned by an agency for irrigation purposes.\textsuperscript{118}

Second, even if the agency could obtain water rights to sufficient water, either by obtaining appropriation rights to unappropriated water or by buying or condemning existing water rights, the use of the water could not impair existing rights.\textsuperscript{119} The owner of a water right in Kansas may enjoin a junior right holder if the junior's right impairs the senior's use.\textsuperscript{120} Thus, the agency might have to acquire rights to more water than it actually needs in order to protect itself against lawsuits.

Third, even if there were no senior rights, the acquiring agency might have to contend with junior right holders. For example, suppose the export agency acquired senior rights at a point where a nearby junior right holder depended on a certain quantity of return flow from the senior, and proposed to export the entire amount of the senior's right westward. A principle of prior appropriation law is that:

\[\text{[Junior appropriators have vested rights in the continuation of stream conditions as they existed at the time of their respective appropriations, and that subsequent to such appropriations they may successfully resist all proposed changes in points of diversion and use of water from that source which in any way materially injures or adversely affects their rights.}\textsuperscript{121}\]

Protection of these junior right holders might also entail the purchase or condemnation of more water rights than might be necessary for the transfer itself.

Fourth, even though priority in time is priority in right, there is an ordering of water uses in the statute as follows: "Where uses of water for different purposes conflict such uses shall conform to the following order of preference: Domestic, municipal, irrigation, industrial, recreational and water power uses."\textsuperscript{122} This ordering is followed by a statement that the date of priority, not the purpose, determines the right to divert the water. Therefore, the preference list appears to mean one of two things. It might mean that if the Chief Engineer receives two permit applications at exactly the same time covering the same water source at the same place, he must favor the permit requesting the preferred use. Alternatively, the preference list might mean that the holder of an inferior use on the list

\textsuperscript{116} \textit{Id.} § 19-3552(5).
\textsuperscript{117} A more detailed analysis on transporting the water is found at \textit{infra} notes 312-59.
\textsuperscript{119} \textbf{Id.} §§ 82-707(c), -711, -717a (1977 & Supp. 1981). \textit{See also KAN. STAT. ANN.} § 17-618 (1981), which gives private irrigation corporations power of eminent domain for "lands," but prohibits the taking of any stream water in such a manner as to interfere with any existing irrigation improvements along the stream or to diminish the supply of water flowing through any established irrigation canal.
\textsuperscript{120} \textit{Id.} § 82a-717a (1977).
\textsuperscript{122} \textbf{KAN. STAT. ANN.} § 82a-707(b) (1977).
cannot be deprived of the use except by condemnation. This latter interpretation would not necessarily grant condemnation power to the higher preferred uses over the lower—an express statute should do that.123 But, assuming there is express power of eminent domain in an entity, that entity could probably condemn the water right of a user further down on the preference list. Thus, even if a state agency had the water right for shipment to western Kansas for irrigation, under the current preference statute that water right might be at least partially subject to condemnation for a higher preferred use such as municipal use. The converse might also be true: the agency could not condemn municipal or domestic water rights. Yet, these conclusions based on the preference statutes would run counter to the general legal rules that a city cannot condemn state property, but a state or its agencies may condemn municipal property.124

This ordering of use priorities, combined with the deference to senior rights and recognition of junior rights, presents another question when considering “water reservation rights” in Kansas reservoirs such as Tuttle Creek Reservoir.125 Suppose the Kansas Water Office has the storage rights to a large quantity of Tuttle Creek Reservoir water for municipal and industrial purposes when this diversion project is begun. To have obtained these rights, the Water Office would have contracted with the federal government for this storage. The Water Office would have then obtained the water reservation rights by filing notice with the Chief Engineer. Finally, the Water Office would have contracted with individual users, including industries and municipalities, for some or all of this water.

These water reservation rights are akin to but not exactly like an appropriation right or a vested right under Kansas law. On one hand, they take their place on the time priority ladder along with the other types of water rights. The statute provides:

The rights of the state under this section . . ., known as “water reservation rights,” shall be 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.126

On the other hand, these rights are not defined as real property rights, “appurtenant to and severable from” the land, like other water rights. Furthermore, the rights to the stored water held by individuals, corporations, and cities via their contracts with the Water Office are contractual rights, not ordinary water rights. Assuming that the federal law would allow this storage to be used for irrigation, which is an issue explored in depth in section IV, subsection B of this Article, could a state or federal agency charged with acquiring water rights for an interbasin transfer take either the water reservation rights held by the Water Office or the contractual rights held by those who have contracted with it?

If the Water Office had only obtained the water reservation rights in the reservoir water, but had not yet contracted with industries or cities for all of this water

123 Town of Sterling v. Pawnee Ditch Extension Co., 42 Colo. 421, 94 P. 339 (1908), appears to conclude that preference statutes themselves confer powers of eminent domain.
125 See supra notes 36-39 and accompanying text.
126 KAN. STAT. ANN. § 82a-1303 (1977).
at the time the transporting agency sought these water rights, some of the excess could be used for an interbasin transfer. This would not be done by condemnation. One state agency could not without specific statutory authority condemn property of another state agency. The Kansas Legislature could change the excess water's status from a water reservation right held by the Water Office to an appropriation right with a priority date held by the transporting agency, but such a change might require the approval of Congress. Theoretically such a change would not be contested by downstream users since the quantity and the priority date would have already been established, so changing the use and location of use should concern no one. Yet, as stated before, a downstream irrigator or potential irrigator would surely question the propriety of transferring water out of one river basin and into another basin. And, as discussed below, cities and other appropriators downstream from Tuttle Creek Reservoir have relied on the storage releases from the reservoir to provide a more uniform flow of higher quality water from which they divert water under their appropriation rights. Moving the water out of the basin would affect both the quantity and the quality of downstream flow and thus might arguably constitute impairment of existing rights.

The reservation water rights that are under contract to various users would present an equally difficult problem. A legislative act that changes water use to the detriment of contract rights would be a taking for which compensation is required. Even though the water reservation rights are held in the name of the Kansas Water Office, the users of the water and therefore the owners of contract rights are the industries and cities downstream. These rights would have to be condemned by the transporting authority. Again the statutory use preference rears its head. If that preference statute applies, it might be argued that a municipal use could not be taken since it is higher on the list than irrigation, but an industrial use could be taken since it is lower.

If the federal government sought the water rights under the Reclamation Act, a different result would be reached. The federal government would theoretically be able to condemn, for example, a city's water rights without being bound by a state use preference statute like the one in Kansas. In City of Fresno v. California the Bureau of Reclamation had taken water rights, including those of Fresno, when it was in the process of constructing the Central Valley Project. Fresno argued that section 8 of the Reclamation Act required that the Bureau respect the California state law, which arguably gave Fresno priority because of its do-

127 See supra note 124. Furthermore, it is unclear what type of property right this is since it is not defined as a personal property right. It might be deemed a personal property right to the quantum of water stored in the reservoir.
128 See infra notes 227-56 and accompanying text.
129 See infra note 240 and accompanying and following text.
130 KAN. STAT. ANN. § 82a-711 (Supp. 1981) defines impairment of an existing water right to include an "unreasonable deterioration of water quality at the water user's point of diversion beyond a reasonable economic limit."
131 Arguably, the preference statute, KAN. STAT. ANN. § 82a-707(b) (1977), applies only to appropriation rights since the statute is found in KAN. STAT. ANN., ch. 82a, art. 7, titled "Appropriation of Water for Beneficial Use." The preference list, however, pre-dated the Water Appropriation Act of 1945. The 1945 Act amended the earlier version, placed the revised version in the Appropriation Act, and repealed the older version. In any case, to prevent a problem with this preference listing in the context of water reservation rights, current statutory law could and would have to be changed.
mestic uses. The United States Supreme Court held that, while the federal government had to pay compensation, it could take this municipal use water right for irrigation even though state law apparently gave municipal use a higher priority.\footnote{Id. at 631.}

Fifth, other potential claimants are those "common-law claimants" who were given a cause of action for damages against appropriators under the Kansas Water Appropriation Act.\footnote{See supra text accompanying notes 27-28.} There are no Kansas Supreme Court cases construing the scope of these rights, but according to the statute, "[i]f any appropriation, or the construction and operation of authorized diversion works results in any injury to any common-law claimant, such person shall be entitled to due compensation in a suitable action at law against the appropriator for damages proved for any property taken."\footnote{KAN. STAT. ANN. § 82a-716 (1977). In Williams v. City of Wichita, 190 Kan. 317, 374 P.2d 578 (1962), the Kansas Supreme Court discussed common-law claimants.} Does this mean that owners riparian to the Missouri River below the point of diversion on this proposed project, who have never used water from the river, could bring a damage suit against the transporting agency for a massive taking of water from the Missouri River? What if ownership has changed hands since 1945? What does "for any property taken" mean in the statute? These questions will have to await an interpretation by the courts.

Sixth, the transporting agency also might have to consider the "minimum streamflow" legislation passed by the 1980 Kansas Legislature.\footnote{Act of Apr. 18, 1980, ch. 332, 1980 Kan. Sess. Laws 1334 (codified at KAN. STAT. ANN. §§ 82a-703, 705 (Supp. 1981)).} That law allows the Chief Engineer, after an appropriate change in the State Water Plan, to withhold from appropriation that amount of water deemed necessary to establish and maintain a desired minimum streamflow for certain identified watercourses. In addition, when passing on a new proposed use of water, the Chief Engineer must consider established minimum desirable streamflow requirements. These requirements would decrease the amount of water available for any use, although it is uncertain whether they would remove enough water from appropriation to interfere with an interbasin transfer.

Seventh, the conflict between water quantity and water quality needs has recently emerged.\footnote{Address by G. Gould, "Trends and Developments in Western Water Law," given at Water Law & Management Seminar, Denver, Colo. (May 28, 1980). See Mysy, Quality Vs. Quantity: The Federal Water Pollution Control Act's Quiet Revolution in Western Water Right Administration, 23 ROCKY MNT. MIN. L. INST. 1013 (1977).} Historically, water quantity and water quality needs have been treated as two separate problems. In the future, however, the problems may be interrelated because increased consumption due to water quality standards may lessen the amount of water available for downstream uses. For example, a city or a power plant might historically have emptied a certain quantity of return flow into a stream, but new water quality standards may require them to build works that would keep some of the water from returning to the stream. Multiplying this problem for numerous sites on a single stream or river could cause a significant amount of water to be lost to such other beneficial uses as exporting to western Kansas for replenishing groundwater aquifers.

Eighth, the State Water Plan,\footnote{See supra text accompanying notes 61-77.} and any future changes in the Plan, could
have a significant effect on any proposed water transporting scheme. As it now stands, two of the long-range goals of the state are the development of sufficient water supplies for beneficial purposes and the sound management of groundwater supplies. Express policies in the Plan include development of adequate water storage to meet anticipated water uses through construction of multi-purpose reservoirs, identification of minimum streamflows, financial assistance to public corporations concerned with management and development of water resources, and development of groundwater recharge projects. Tuttle Creek Reservoir, however, is not even shown in the Plan as a source of irrigation water, so the Plan would have to be changed to include this use. Other possible changes in the Plan, such as a long term policies toward greater conservation of water or against transbasin diversions, or favoring industrial use over irrigation use, could have a significant impact on the legality of a proposed diversion. Conversely, legalizing such a project might require amending the Plan to state a policy expressly favoring intrastate, interbasin transfers of water to replenish the groundwater reserves in western Kansas, and favoring irrigation as a proposed use of water from Tuttle Creek Reservoir or other reservoirs having water supplies that could be used in a diversion project.

Ninth, the taking of large quantities of water from Tuttle Creek Reservoir could lessen the flow in the Kansas River and in turn in the Missouri River. Theoretically, a reduction in the Missouri River could, in turn, reduce the flow in the Mississippi River. Thus, this case turns into an interstate problem, with many of the same considerations as are necessary when taking Missouri River water.¹³⁹ Since both the Missouri and the Mississippi Rivers are "gaining rivers" because they run toward areas of increasing precipitation and are being fed by numerous tributaries along the way, one would think there is little likelihood of a problem concerning either river. Yet, a potential problem exists in that the State of Missouri might protest the loss of water that historically has been available for Missouri's use.¹⁴⁰ Three possible legal solutions are available to divide the water of the Missouri River and the Kansas River, its tributary: first, an interstate compact similar to those in which Kansas is a party, in which Kansas and adjoining states divide the quantity of water in various watersheds; second, a lawsuit by Missouri or some other downstream state against Kansas in the Supreme Court requesting an "equitable apportionment" of the water; and third, congressional apportionment of the water, as Congress did for the Colorado River among the states in that basin.¹⁴¹ Further discussion of these alternatives will await the treatment of the Missouri River as a potential source.¹⁴²

Tenth, the federal government has a "navigational servitude" on navigable streams and rivers.¹⁴³ This servitude, derived from Congress' power to regulate commerce, results from the federal government's power and duty to keep our navigable streams open for navigation, and involves, among other things, main-

¹³⁹ See infra text accompanying notes 257-311.
¹⁴⁰ See supra note 79 concerning Missouri's request to block a South Dakota diversion that might impair water flows in the State of Missouri.
¹⁴¹ For cases and discussion on interstate apportionment of water resources, see F. TRELLEASE, CASES AND MATERIALS ON WATER LAW 642-82 (3d ed. 1979) [hereinafter cited as TRELLEASE].
¹⁴² See infra text accompanying notes 257-311.
taining sufficient flows for navigational purposes. If the federal government felt its responsibility over commerce and navigation were being impaired by a significant transfer of water from the Missouri River, it could conceivably enjoin such a transfer.

With respect to diversion of stored water in Tuttle Creek Reservoir and its effect on navigation of the downstream Kansas and Missouri Rivers, the situation is different. The Flood Control Act of 1944,144 discussed below in exploring authorized uses of water in the reservoir,145 subordinated the navigation servitude to other uses.146 Thus, if stored water in projects constructed under the Act is to be used for domestic, municipal, stock water, irrigation, mining or industrial purposes, use for navigation may not conflict with these other uses.147 Applicable only to the use of water arising in states lying wholly or partly west of the ninety-eighth meridian, the subordination subsection was enacted to appease upstream irrigators who feared a loss of water necessary to meet navigation needs on the Missouri River and to gain their support for the Missouri River Basin Plan.148 Since the water in Tuttle Creek Reservoir arises in two states lying wholly or partly west of the ninety-eighth meridian, Kansas and Nebraska, it would appear that a projected interbasin transfer from Tuttle Creek Reservoir for irrigation could not be defeated by the navigational servitude.149

Eleventh, a legal issue might arise if water from a reservoir were transferred out of the Missouri River Basin entirely and into the Arkansas River Basin in southwest Kansas. The 1944 Flood Control Act created the “basin account concept.”150 This concept allows the economic justification of the irrigation aspects of project development to be viewed from the basin as a whole. While revenue from power generation may greatly exceed the costs of the power portions of a project, for example, the opposite is true for irrigation, and irrigators would generally be unable to pay their share of costs attributable to irrigation. The basin account makes it possible for excess revenues generated from a project in one portion of the basin to be used to reimburse the federal government for expenditures on other projects in the same basin.151 A single project might therefore be built under this concept when it might otherwise be impossible if the cost-benefit analysis were used only on the project itself. The issue would be whether excess revenues could be used to fund a project for the transfer of water to a point outside the basin, or, from another perspective, whether the transferees or recipients

145 See infra notes 203-210 and accompanying text.
146 1944 Flood Control Act, supra note 144, § 1(B). This subsection is popularly known as the “Milliken-O’Mahoney Amendments” to the Act.
147 Id.
148 Interview with Robert L. Smith, Professor of Civil Engineering at the University of Kansas, and former executive director of the Kansas Water Resources Board, in Lawrence, Kansas (May 22, 1980).
149 This conclusion assumes that Tuttle Creek Reservoir was authorized by the 1944 Flood Control Act, supra note 144. Although construction of the reservoir was technically authorized under the Flood Control Act of 1938, Act of June 28, 1938, Pub. L. No. 75-761, 52 Stat. 1215, [hereinafter cited as 1938 Flood Control Act], the 1938 Act was incorporated by reference into the 1944 Act, 1944 Flood Control Act, supra note 144, § 9(b), 58 Stat. at 891. Because the construction on Tuttle Creek had not yet begun in 1944, Congress probably authorized it for construction under the 1944 Act. See infra text accompanying notes 170-256 for the legislative history of the Tuttle Creek Reservoir authorization.
150 1944 Flood Control Act, supra note 144, § 9(c), page 891.
151 See 2 WATERS AND WATER RIGHTS § 111.3, at 135-36 (1967); TRELEASE, supra note 141, at 745-46; R. HUFFMAN, IRRIGATION DEVELOPMENT AND PUBLIC WATER POLICY 174 (1953); PRESIDENT’S WATER RESOURCES POLICY COMMISSION, TEN RIVERS IN AMERICA’S FUTURE 250-53 (1950).
could demand use of the excess revenues to aid in payment of the costs associated with the transfer. The basin account concept would apply only to reservoirs that have at least a portion of their conservation storage designated for irrigation use, so Tuttle Creek Reservoir would not at the present time be affected. Other reservoirs in the Kansas River Basin that have irrigation storage, like Kanopolis Reservoir, might be subject to the basin account issue.152

Last, a major water diversion would clearly have an impact on the environment throughout the geographic boundaries of the project, beginning in the east where the water originates, stretching westward along the route of the canal or pipeline, and ending in the west, where large amounts of water would be used. Although not discussed here in detail, the following recent federal and state legislation would have to be considered in the early planning stages of such a proposed project.

The federal government expressed its policy of preventing damage to the environment in the National Environmental Policy Act of 1969.153 One key provision of the Act requires all federal government agencies to "include in every recommendation . . . on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement . . . on the environmental impact of the proposed action."154 In addition to stating the environmental impact, the agency must describe any environmental effects that could not be avoided if the project were implemented, and any alternatives to the proposal.155 A major federally-funded water diversion project would clearly require an environmental impact statement. It is conceivable that the environmental effects of such a diversion could be serious enough to require cancellation of the project itself.156 For example, the impairment of water quality downstream from a large scale diversion out of the basin could be a major problem.

Other potential constraints are the federal and state laws that attempt to protect wildlife, among them the federal Endangered Species Act of 1973157 and the Kansas Nongame and Endangered Species Conservation Act.158 If a project is likely to jeopardize the continued existence of a species listed as threatened or

152 The basin account may apply only to reservoirs whose original storage included water for irrigation, but conceivably it could be applied to a reservoir whose storage would be changed, long after construction of the dam, to uses that include irrigation. Thus, although the Corps of Engineers' economic justification for Tuttle Creek Reservoir viewed as a single project might show a positive cost-benefit ratio, a change in the storage from navigation, water quality, and recreation to irrigation could change that ratio. The cost-benefit ratio without conservation storage is shown as either 1:1.26 or 1:1.31, H.R. Doc. No. 642, 81st Cong., 2d Sess. 63 (1950), depending upon whether the seasonal use of part of the flood-control allocation is adopted. A December 1961 Corps of Engineers report shows that cost-benefit ratio for the conservation pool to be 1:3.8 and for flood control pool to be 1:2.2. U.S. ARMY CORPS OF ENGINEERS, ALLOCATION OF STORAGE FOR CONSERVATION AND RECREATION-ECONOMIC JUSTIFICATION, TUTTLE CREEK RESERVOIR, BIG BLUE RIVER, KANSAS 14 (Dec. 1961).
154 Id. § 4332(c)(i).
155 Id. §§ 4332(c)(ii) & (iii).
158 Kan. Stat. Ann. §§ 32-3-1 to -510 (1981). This act makes direct reference to the federal Endangered Species Act of 1973, and it gives the Forestry, Fish, and Game Commission of Kansas the power to adopt rules or regulations and to develop conservation programs to insure the continued ability of nongame species to perpetuate themselves successfully. In determining whether any species is threatened, the commission is to consider actions by the state or any agencies thereof or by the federal government, which could include a major water diversion like the one discussed in this Article.
endangered, or will destroy or modify its critical habitat, the Federal Act provides a process for enjoining the project.\textsuperscript{159} If there is an irreconcilable conflict between the project and the safety of the protected species, a cabinet-level committee eventually determines which survives.\textsuperscript{160} Other federal acts that might impose obligations or obstacles include the Migratory Bird Treaty Act of 1918\textsuperscript{161} and the Fish and Wildlife Coordination Act of 1958.\textsuperscript{162} The state statutes that regulate fish and game could also conceivably be used by opponents of a water diversion project.\textsuperscript{163}

Another potentially relevant federal act is the Wild and Scenic Rivers Act of 1968.\textsuperscript{164} This Act declares a policy of protecting and maintaining in their free-flowing condition certain rivers that have "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. . ."\textsuperscript{165} If a river is included in the national wild and scenic rivers system by either an act of Congress or by a designation by a state that is approved by the Secretary of Interior, the river is protected. The Federal Power Commission may not license construction of projects on these rivers,\textsuperscript{166} nor may any department or agency of the federal government recommend any water resources project that would have a direct and adverse effect on these rivers without advising the Secretary of Interior or the Secretary of Agriculture and reporting to Congress.\textsuperscript{167} In the Missouri River Basin, two segments of the Missouri River have been named to this wild and scenic rivers system,\textsuperscript{168} and, in April and May of 1980, there was newspaper publicity\textsuperscript{169} given to a draft report by the Corps of Engineers that recommend the designation of a fifty-seven-mile stretch of the Kansas River for recreational development under the Act. Such a designation could have a serious effect on any proposed use of upstream water from Tuttle Creek Reservoir in an intrastate diversion project.

\textbf{B. Tuttle Creek Reservoir}

\textit{1. Introduction}

Aside from the Missouri River, Tuttle Creek Reservoir on the Big Blue River is one logical diversion source within the State of Kansas that could possibly satisfy the demands of a large scale interbasin transfer. The Big Blue River provides approximately forty percent of the total average annual surface water yield of the Kansas River basin above Manhattan, roughly 1.2 million acre feet per

\begin{footnotes}
\item[162] \textit{Id.} §§ 661-663ee.
\item[163] \textit{Kan. Stat. Ann.} §§ 32-101 to -510 (1981). For example, in § 32-158, beavers and muskrats and their habitats are protected; in § 32-156, certain wild birds are protected; and in § 32-114, nests and eggs of all wild birds are protected.
\item[165] \textit{Id.} § 1271 (1976).
\item[166] \textit{Id.} § 1278(a) (Supp. III 1979).
\item[167] \textit{Id.}
\item[168] \textit{Id.} § 1274(a)(14) & (22) (1976 & Supp. III 1979). These segments are located in Montana, from Fort Benton 149 miles downstream to Robinson Bridge, and in Nebraska and South Dakota, from Gavins Point Dam, South Dakota, 59 miles downstream to Ponca State Park, Nebraska.
\item[169] \textit{See}, \textit{e.g.}, Lawrence (Kan.) Daily J.-World, Apr. 14, 1980, at 1, col. 1.
\end{footnotes}
year. The Tuttle Creek Reservoir, constructed in the mid-1950s, impounds over 400,000 acre feet of water and has the capacity to impound flood waters amounting to almost 2,000,000 acre feet. Although the water is physically present, legal and political problems would have to be addressed before any water could be made available for a use different than those presently being made. To that end, this Article addresses two questions: First, based on the history of the congressional authorization of Tuttle Creek Reservoir and on Corps of Engineers policy since construction, could water from Tuttle Creek Reservoir be used for irrigation in western Kansas? Second, if not, is there an available legal mechanism to expand the uses of stored water to include irrigation use? As will be shown, resort to Congress will be needed to make the water available for a water transfer of the magnitude anticipated.

2. Tuttle Creek Reservoir for Irrigation: The Legislative History

a. Early Flood Control History

Early in this century, Congress was confronted with the problem of major flooding but lacked data on which to proceed with a comprehensive flood control program. The early legislation, based mainly on the war power and the power to control navigable streams under the commerce clause, dealt mainly with stream clearance and levee construction and provided only broad guidelines for watershed surveys. Although Congress itself was directly involved with these projects before 1920, the Federal Power Commission (FPC) was created in that year, and Congress thereby delegated considerable authority to build dams to the FPC. The FPC, however, could not license any dam construction without first obtaining approval from the Chief of Engineers of the Army Corps of Engineers and the Secretary of War. Thus, the overall effect was to vest in the Army Corps of Engineers power to control the design, placement, and to some extent the use of water that affected the navigable capacity of certain streams. These developments also led to the creation of expertise and manpower resources within the Corps that were not found elsewhere, with the possible exception of the Bureau of Reclamation of the Department of Interior.

On March 3, 1925, Congress directed the Corps and the FPC jointly to make an estimate of the cost of developing potential hydropower dam sites on the nation's navigable streams. The study was to be made with a view toward improving navigation and developing the most efficient combination of water power, flood control, and irrigation water supply. The Chief of Engineers and the Secretary of the FPC forwarded House Document No. 308 to the House of Representatives on April 13, 1926, a detailed estimate of the cost of assessing the

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172 Id.
175 Id. § 4(d) at 1065.
177 Id.
hydropower potential of several navigable streams including the Kansas River. Next, Congress directed that actual stream studies be made in accordance with House Document No. 308. The extensive and detailed studies that followed came to be known as the "308" reports. It was in the Kansas River 308 report, published in 1934, that the Tuttle Creek damsite first received widespread documentation.

b. History of the Tuttle Creek Reservoir Authorization

Although Congress directed that the studies focus primarily on power generation, the Kansas River 308 report gave flood control and navigation primary consideration. While detailed cost-benefit analysis was not attempted in the report, the Corps concluded that a single dam on the Kansas River upstream from Topeka at Kiro would be the most efficient. The purposes of the proposed reservoir appeared to include flood mitigation and navigation improvement, but not irrigation.

Congress did not act immediately on the comprehensive Mississippi River report, which included the Kansas 308 report, since it was working on the Flood Control Act of 1936 in response to the great floods of 1935 and 1936. The 1936 Act contained no mention of reservoirs on the Big Blue River, but it did direct that flood control studies be made for two locations on the Kansas River, at Manhattan, Kansas and for the Big Blue River, a tributary of the Kansas River. The Big Blue River study was never published because the Chief of Engineers found that neither levees and channelization nor a system of reservoirs could be economically justified. Meanwhile, the Chief of Engineers reviewed the comprehensive Mississippi River report and a report on the Ohio River and the alluvial valley of the Mississippi. The review culminated in a report to the President and Flood Control Committee of the House, in which the first firm recommendation to build a dam at Tuttle Creek was made. The Flood Control Committee recognized that earlier flood damage studies were based on dam-

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181 Id. at 130.
182 Id. at 131.
183 This conclusion is based on statements in the report that irrigation development east of the 98th meridian would be uneconomical because the capital cost is high and rainfall is adequate. Id. at 185. Tuttle Creek Reservoir lies approximately 80 miles east of the 98th meridian. The conclusion is further supported by the absence of any reference to irrigation in connection with the Tuttle Creek damsite. One year after publication of the Kansas River 308 report, the Corps compiled all tributary reports into one comprehensive report on the Mississippi River Basin. This report did not consider Tuttle Creek a viable dam site; only the Kiro site on the main stream of the Kansas River was considered necessary. H.R. Doc. No. 259, 74th Cong., 1st Sess. 47 (1936).
185 Flood Control Act of 1936, ch. 688, 49 Stat. 1570. An interesting aspect of the 1936 Act was that Congress would not allow expenditure of appropriated monies until the states assured Congress that they would provide all lands, easements, and rights-of-way necessary for construction, hold the United States harmless from damages due to construction, and maintain and operate the dams after construction. Id., § 5, 49 Stat. at 1571.
186 Id., § 6, 49 Stat. at 1594.
188 Flood Control Plan for Ohio and Lower Mississippi Rivers: Hearings on H.R. 7393 Before the House Comm. on Flood Control, 75th Cong., 1st Sess. 10 (1937) (reprint of HOUSE COMM. ON FLOOD CONTROL, DOC. NO. 1, 74th Cong., 1st Sess. ¶ 22) [hereinafter cited as FLOOD CONTROL COMM. DOC. 1].
age to relatively undeveloped country that had since witnessed increasing development. A repetition of the earlier floods would cause far greater damage because of this development. Thus, dams at Tuttle Creek, Milford, and Kanopolis were recommended instead of one large dam on the Kansas River at Kiro. The Flood Control Committee recommended that the dams contain permanent storage when the cost would be nominal and a useful purpose would be served; it further recommended that the Secretary of War should have discretionary authority to enlarge dams at a later date to provide for conservation storage. Although the committee made no recommendation with respect to the use of the conservation storage, it did state that any reservoir should be operated "to secure the maximum and most widespread benefit for flood control, . . . [not] for the benefit of a particular locality."192

In the Flood Control Act of 1938 Congress adopted the Missouri River Basin plan (part of the plan for the Mississippi River) as set forth in the Committee report, thus authorizing construction of Tuttle Creek Reservoir.193 The purposes to be served by constructing Tuttle Creek Reservoir, namely the benefit of navigation, the control of destructive floodwaters, and other purposes, are broad enough to encompass use of water from the reservoir for irrigation, yet irrigation is not specifically mentioned. Both the Flood Control Act of 1938 and the adopted flood control committee report give the Chief of Engineers broad discretion to pursue individual projects and to provide for permanent conservation storage. It is inferable that the Chief of Engineers was also given similar discretion over the use of conservation storage as long as the use is not inconsistent with the primary goals of flood control and enhanced navigation. If individual states ever had any control over the water within federal multipurpose reservoirs, they lost that control in 1938 when the conditions previously imposed were removed and the Secretary of War was given the power to acquire lands, easements, and rights-of-way.197

With a broad flood control framework in place, the Corps of Engineers began more detailed considerations of individual river basins. Early in 1944 the Corps of Engineers completed its comprehensive Missouri River Basin Report, known as the Pick Report, and several months later the Bureau of Reclamation completed a similar report, known as the Sloan Report. The Corps proposed a comprehensive plan for the Missouri River Basin and concluded that a system of reservoirs, including Tuttle Creek Reservoir, should be "utilized to produce the maximum practicable development of irrigation, navigation, power and other multiple purposes. . . . The amount of water to be made available to the Bureau of Reclamation for irrigation would be arrived at after close collaboration with

190 Id.
192 Id., § 31.
194 Id.
195 Id.; Flood Control Comm. Doc. 1, supra note 188, ¶ 29.
196 See supra note 185. Arguably, if the states provided the lands and easements, and maintained and operated the dams after construction, the states should have control over the use of the storage water.
197 Flood Control Act of 1938, ch. 795, § 2, 52 Stat. 1215.
that agency." The Sloan Report, however, did not list Tuttle Creek as a potential irrigation reservoir. Because the two reports differed in focus and treatment, they were consolidated through a joint effort of the Corps of Engineers and the Bureau of Reclamation late in 1944, and renamed the Pick-Sloan Report.

The Flood Control Act of 1944 adopted the Pick-Sloan Report, including the recommendation that Tuttle Creek Reservoir be constructed. That Act is significant in several respects when considering a major diversion of Tuttle Creek Reservoir water for irrigation purposes. It provides that additional irrigation works may be added to a Corps dam or reservoir project on a recommendation by the Secretary of Interior and a special determination by the Secretary of War. The ability to add irrigation works is not without legal limitation: "[s]uch irrigation works may be undertaken only after a report and findings thereof have been made by the Secretary of Interior as provided in said Federal reclamation laws and after subsequent specific authorization of the Congress by an authorization Act . . . ."

Another relevant aspect of the 1944 Flood Control Act is its direction to the Secretary of War to prescribe regulations for the use of reservoir storage allocated for flood control and navigation. Before the 1944 Flood Control Act, it was clear that the Secretary of War had wide discretion with respect to the usage of impounded water. Arguably, this specific congressional direction to the Secretary appears to give him sole control over the use of storage in federal reservoirs designed for flood control and navigation; this control could mean the Corps could change navigation use to irrigation use. As actually promulgated, the regulations are not so far reaching. They apparently apply only to operational procedures on dams constructed by the Corps with flood control and navigation aspects but that have been subsequently transferred to another agency such as the Bureau of Reclamation or the FPC.

Several months before the passage of the 1944 Flood Control Act, the House Committee on Flood Control adopted a resolution that the Kansas River 308

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201 Sloan Report, supra note 199, at 95.
202 S. DOC. NO. 247, 78th Cong., 2d Sess. 4 (1944) [hereinafter cited as the Pick-Sloan Report]. Although the Pick-Sloan Report made several changes in recommendations for reservoir locations and storage usage, it made no change in the Pick Report recommendation for Tuttle Creek Reservoir.
203 1944 Flood Control Act, supra note 144.
204 Id., § 9(a), 58 Stat. at 891.
205 The Act is also significant in several other important respects. First, it led to the creation of the Missouri River Basin Inter-Agency Committee, which had as its purposes the interchange of information and the coordination of water resources development programs. Second, it created the "basin account concept," discussed supra text accompanying notes 150-52. Third, it subordinated the federal government's navigational servitude, discussed supra text accompanying notes 144-49.
206 1944 Flood Control Act, supra note 144, § 8, 58 Stat. at 891.
207 Id. (emphasis added).
208 "Hereafter, it shall be the duty of the Secretary of War to prescribe regulations for the use of storage allocated for flood control or navigation at all reservoirs constructed wholly or in part with Federal funds provided on the basis of such purposes, and the operation of any such project shall be in accordance with such regulations. . . ." Id., § 7, 58 Stat. at 890.
209 There is no water permanently stored for flood control purposes. There is space provided to store floodwater when necessary. The floodwater is held back only so long as is necessary to protect the lands and river downstream. It is then released to empty the flood control storage area for receipt of possible new floodwater.
210 Army Corps of Engineers Regulations, 33 C.F.R. § 208 (1981) (Kansas dams included are Cedar Bluff, Glen Elder Dam and Waconda Lake, Kirwin Dam, Lovewell Dam, Norton Dam, and Webster Dam, which are all owned by the Bureau of Reclamation).
The report be reviewed and updated.211 The updated report, not published until 1950,212 recommended that 495,000 acre feet in Tuttle Creek Reservoir should be allocated to conservation storage, 185,000 acre feet to silt storage, and 1,600,000 acre feet to flood control impoundment.213 The report did not anticipate that the impounded water would be used for irrigation, since "[e]xcept for occasional drought years, rainfall in the area below the dam is adequate for crop production."214 Proposed uses were confined to improvement of navigation on the Missouri River, improvement of the quality of the Kansas River during low flow for domestic and industrial use, and possible use in power generation.215 The report was adopted by Congress in 1954 as an addition to the comprehensive plan for the Missouri River Basin set out in the Pick-Sloan report.216

In 1951 one of the most disastrous floods in the history of the Kansas River struck metropolitan Kansas City and the upstream cities of Lawrence, Topeka, and Manhattan. Because a reservoir on Tuttle Creek could have averted much of the damage had it been in existence, money was soon authorized to finance preconstruction activity.217 Actual construction was begun on October 7, 1952.218 Soon thereafter, the Senate, bowing to local pressure, placed a condition on further appropriations: the dam would have to be operated as a dry dam solely for flood protection.219 Construction was halted from 1954 to 1956 when funding for the project was halted.220 Construction was resumed in 1956 at a time when Kansas was in the midst of a prolonged drought. Opposition to a wet dam had faded, and the eastern Kansas populace was in desperate need of a stable water supply. Largely due to these conditions, the Kansas Water Resources Board was formed in 1955, and requests by the Board221 had much to do with the removal of the dry dam restriction imposed by the Senate in 1952. The legislation authorizing the expanded project,222 however, did not state the purposes of the storage. The Senate Report describing the various projects in the appropriations bill included this vague statement: "Accordingly, the restriction previously placed on the operation of this dam is removed in order that the Corps of Engineers may proceed with this reservoir on the basis of providing adequate conservation storage."223

212 Id. at 12.
213 Id. at 61.
214 Id. at 60.
215 Id. The report also studies the feasibility of substituting upstream dams for the Tuttle Creek dam and concluded that alternative sites were not economically justifiable. Id. at 63-64.
218 Letter from P.D. Barber, Chief, Engineering Division, Kansas City District-Corps of Engineers, to Robin Blackman (May 28, 1976) [hereinafter cited as Barber Letter].
220 Barber Letter, supra note 218.
221 Letter from Robert L. Smith, Kansas Water Resources Board, to Senator Andrew F. Schoeppel (March 27, 1957) (calling for initial utilization of the 185,000 acre-feet of silt storage as conservation storage); Letter from Robert L. Smith to Colonel E.C. Adams, Kansas City District-Corps of Engineers (Jan. 10, 1957) (regarding study of feasibility of conservation storage).
c. Conclusion

In summary, the legislative history of the Tuttle Creek Reservoir project shows that Congress never expressly authorized irrigation as an approved use. The 1938 Act, incorporating one of the Corps reports, authorized the reservoir for navigation, flood control and "other purposes." The 1944 Flood Control Act incorporated the 1938 Flood Control Act as well as the Pick-Sloan Report, and the 1944 Act provided for additional irrigation works to be added to Corps projects on agreement of the Secretary of Interior and the Secretary of War, and after specific authorization of Congress. A 1950 Corps report expressly negated irrigation as a use by observing that ample rainfall exists in the area below the dam, but that same report proposed water quality releases for downstream domestic and industrial uses, as well as power production uses. Thus, the legislative history indicates that Congress did not prescribe irrigation as a use, but that Congress could later change the uses to include irrigation.

3. The Evolution and Status of Current Use

When Congress lifted the prohibition against conservation storage in 1957, the issue of what to do with the water stored behind the dam arose. Corps studies in 1957 and 1961 focused on using this water to augment and stabilize the streamflow in the Kansas River. Original plans called for the conservation pool to be equivalent to the sediment storage of about 185,000 acre feet and to decrease steadily over time as silt accumulated. When the dam was being built, however, more detailed surveys of the land behind the dam revealed that the amount of storage available was approximately twice that amount, assuming the same pool elevation. Since the Corps' land acquisition policy required fee simple title to be acquired only for land to be inundated once every five years, and this land had already been acquired, the Corps would have owned excessive acreage if only 185,000 acre feet of water were stored. Disposing of the excess land was not seriously considered because of administrative difficulties, bad publicity, and the unusual shape and location of the land. The Corps therefore contacted the Kansas Water Resources Board to determine if the state of Kansas had any objections to storing additional water behind the dam. The Water Resources Board had no objection, and conservation storage was raised to approximately 413,000 acre feet.

The major purposes of the 1961 Corps study were to provide economic justification for the increased conservation storage in Tuttle Creek Reservoir and to

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224 See supra note 194.
225 See supra notes 203-06.
226 See supra notes 212-15.
227 See supra note 222.
228 U.S. ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT, CONSERVATION OPERATION OF TUTTLE CREEK RESERVOIR (June 6, 1957).
230 id. at 13.
231 Interview with Robert L. Smith, supra note 148.
232 id.
233 id.
allocated storage among possible uses. Along with navigation and water quality uses, recreational, municipal, and industrial uses were also recognized. At the time the Water Resources Board requested that the Senate remove the dry dam restriction, the State of Kansas did not have procedures for developing or acquiring municipal water supplies in federally constructed reservoirs. Congress passed the Water Supply Act in 1958, however, which provided a procedure for the states to acquire municipal and industrial water supplies from federal reservoirs. The prohibition in the Kansas Constitution against internal improvements other than roads and highways was lifted four months after the Water Supply Act became law. Enabling legislation was passed by the Kansas Legislature in 1965 that gave the Water Resources Board the authority to enter into contracts with the United States Government for water supply. Although the Water Resources Board has exercised this authority in connection with other Army Corps projects located within the state for municipal and industrial use, no contract has yet been made for water from Tuttle Creek. Arguably, even a change from the current uses discussed below to include municipal and industrial uses would require congressional approval.

The conservation storage presently is being used for recreation and for augmentation of the flow in the Kansas and Missouri Rivers pursuant to the 1961 Corps study and report. The augmented streamflow provides a more stable supply of water for municipal and industrial use by Kansas River appropriators in Topeka, Manhattan, Lawrence, and Kansas City through controlled releases. These appropriators presently have no rights to stored water in Tuttle Creek Reservoir, but they nonetheless benefit by the controlled releases from storage. Water quality is improved because of the dilution of lower quality Kansas River water with higher quality Big Blue River water. Increased streamflow has the additional effect of supplementing the flow of the Missouri River, which aids navigation.

4. The Possibility of Changing Current Uses to Include Irrigation

If irrigation is not an authorized use, and if present uses include only recreation and flow augmentation for water quality improvement and for navigation, how could these uses be changed to provide irrigation water for a diversion project? Could the Corps of Engineers make such a change on its own or must Congress approve such a change? The answers to these questions depend in part on statutes and in part on the Corps’ policy since the completion of Tuttle Creek Reservoir.

A major reason that the conservation pool of Tuttle Creek Reservoir has never been tapped for consumptive use is that the water has been used to control pollu-

239 Congressman Jim Jeffries of Kansas introduced a bill in Congress in January of 1982 concerning Tuttle Creek Reservoir. If enacted, that bill would give authority to the Secretary of the Army to “assign a portion of the storage space in such project to municipal, agricultural, and industrial water supply.” H.B. 5416, 97th Cong., 2d Sess.
240 1961 Tuttle Creek Study, supra note 229.
tion in the Kansas and Missouri Rivers. In the 1960s the focus of pollution control law was on obtaining minimal stream quality without imposing onerous standards on the sources dumping effluent into the streams. In 1961 Congress passed an amendment to the Federal Water Pollution Control Act of 1956\textsuperscript{241} that called for releases of water from reservoirs to augment low flows and to increase the quality of water within streams.\textsuperscript{242} The Water Quality Act of 1965\textsuperscript{243} and the Clean Water Restoration Act of 1966\textsuperscript{244} both continued the emphasis on the quality of water within streams, rather than on limiting effluent discharges, by instituting national minimum stream quality standards. It was not until 1972, when the Federal Water Pollution Control Act was again amended, that the emphasis was shifted to point sources and effluent standards were adopted.\textsuperscript{245} Because the Tuttle Creek dam was completed shortly after the 1961 amendment was enacted,\textsuperscript{246} and because the Corps reports anticipated use of the water to control water quality within the Kansas River, a portion of the conservation storage was necessarily dedicated to water quality control.

The present need for releases from conservation storage to enhance water quality, however, is diminished by the 1972 amendments. Furthermore, the Water Resources Development Act of 1974 allows the water saved by controlling pollution at its source to be put to another use.\textsuperscript{247} To authorize such a new use, the Administrator of the Environmental Protection Agency must make a finding that the water is no longer needed for pollution control, which allows the Chief of Engineers or the Secretary of War to use the water for other authorized purposes, provided water quality benefits comprise less than fifteen percent of the total project benefits.\textsuperscript{248} If water quality benefits comprise between fifteen and twenty-five percent of the total project benefits, the change must be approved by a Senate and House committee resolution.\textsuperscript{249} If irrigation could be considered an authorized use for water from Tuttle Creek Reservoir, the 1974 Water Resources Development Act could provide a means for the Corps to convert conservation storage dedicated to water quality enhancement to irrigation use. As discussed above,\textsuperscript{250} however, Tuttle Creek has never seriously been considered a source of water for an irrigation project. In any case, the quantity of water to be made available by means of the procedure set forth in the 1974 Water Resources Development Act would likely be insufficient to satisfy the demands imposed by an interbasin transfer of the magnitude anticipated.

A major change of the water use in the reservoir could drastically affect recreational use. Although recreation was not an expressly stated use in any of the flood control legislation creating Tuttle Creek Reservoir, the Corps in its 1961 report saw it as one of the prime economic justifications for conservation storage.

\textsuperscript{241} Ch. 518, 70 Stat. 498 (1956).
\textsuperscript{242} Federal Water Pollution Control Act Amendments of 1961, Pub. L. No. 87-88, § 2(b)(1), 75 Stat. 204, 204.
\textsuperscript{244} Pub. L. No. 89-753, 80 Stat. 1246 (1966).
\textsuperscript{245} Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816.
\textsuperscript{248} Id.
\textsuperscript{249} Id.
\textsuperscript{250} \textit{See supra} notes 224-26 and accompanying text.
It is now an expressly approved use in the State Water Plan. It has since become extremely important to the large numbers of visitors to the lake. The creation of the Kansas State Park and Resources Authority introduced a constituency that could strongly oppose any attempt to deplete the water in the reservoir for consumptive uses such as an interbasin diversion.

In addition to impinging on recreation, water quality control, and municipal and industrial supplies, the physical removal of water from the conservation pool for irrigation use would also affect the navigational benefits derived from periodic controlled releases. Reliance on navigation benefits to justify conservation storage seems misplaced, however, because of the very small influence that releases from Tuttle Creek have on navigational flows in the Missouri River from Kansas City to its mouth near St. Louis. The 1961 Corps study concluded that navigational benefits from Tuttle Creek would not be permanent:

The need for navigation water will be reduced to some extent when all of main stem reservoirs are completed and filled. . . . This fits in very well with the requirements for other conservation uses. These will develop as the availability and quality of the supply is demonstrated. For the purpose of this study, it has been assumed that municipal and industrial use would increase from near zero at the beginning of Tuttle Creek operation to all of the available supply over the following 50 years and average about 75 percent. During the same period exclusive navigation use would drop from all to near zero.

Thus, the Corps anticipated shifting uses for water in the conservation pool over time. Presumably the changes would be made pursuant to rules established by the Corps that provide that "[r]eallocation of reservoir storage that would have a significant effect on other authorized purposes or that would involve major structure or operational changes will require specific congressional approval."  

Although the Secretary of War and the Corps of Engineers have some authority to determine the use of the water within the conservation pool, neither appear to have authority to make modifications of a significant nature. Because it is quite likely that the anticipated interbasin transfer would involve quantities of water that would impinge on both conservation storage and flood control storage, a report to Congress followed by specific congressional approval would probably be necessary.


253 A recent example of these conflicts among various interests occurred in 1981 when the Kansas Water Office, under its water level management plan, recommended that there be a one year, six foot drawdown of the Tuttle Creek Reservoir conservation pool level. The original request had been made by the Kansas Fish and Game Commission for the purpose of improving fishery management. The Water Office held two public hearings after consulting with the Kansas State Park and Resources Authority. Strong objections from various interests such as an upper Tuttle Creek marina and the city of Marysville resulted in the Water Office's decision not to implement the drawdown. Those objections concerned the effect such a drawdown would have on the boating business. Interview with Larry Sheets, Associate Hydrologist, Kansas Water Office, Topeka, Kansas, by telephone from Lawrence, Kan. (February 22, 1982).

254 Interview with Robert L. Smith, supra note 148.

255 1961 TUTTLE CREEK STUDY, supra note 229, at 7.

256 ARMY CORPS OF ENGINEERS, EM 1165-2-105, change 15, at 7 (March 1, 1977).
C. The Missouri River

1. Introduction

In comparing the Missouri River with Tuttle Creek Reservoir as a source for water for movement to the west, the most obvious legal difference is the direct interstate characteristic of the Missouri River. The Missouri River forms the boundary between Kansas and Missouri in the extreme northeast corner of Kansas, for a distance of approximately 100 miles. It runs generally in a southeasterly direction past St. Joseph, Missouri, and Atchison and Leavenworth, Kansas, before entering Kansas City, Kansas, and Kansas City, Missouri, where it turns and runs eastward to St. Louis and joins the Mississippi River. The Kansas River joins the Missouri River in Kansas City.

Merely because the Missouri River forms the boundary between Kansas and Missouri, or because the Kansas River flows into the Missouri River at Kansas City, does not mean that Kansas may not use water out of either river to the detriment of Missouri and other downstream states. Actually, Kansas individuals and municipalities have appropriation rights for diversions from both rivers, and individuals and municipalities on the Missouri side divert water from the Missouri River for use in Missouri. But Kansas does not “own” the water in the Kansas River or on the Kansas side of the thread of the Missouri River.

Taking large quantities of water from either the Missouri River or Tuttle Creek Reservoir for shipment west, however, would raise the possibility of a claim of interest in the water by the State of Missouri or by other states downstream. Likewise, can Kansas expect the upper states on the Missouri River and its tributaries—Nebraska, Iowa, Minnesota, South Dakota, North Dakota, Wyoming, and Montana—to continue to allow the necessary flow for a future interbasin transfer? Any project of this magnitude must consider the interests of both the upstream and the downstream states to insure that adequate supplies of water will always be available.

Three methods have evolved for permanently apportioning waters that possess an interstate character because they are drawn either from a river forming a common boundary or from a river that passes from one state into another: first, the interstate compact; second, congressional apportionment; and third, “equitable apportionment” by the United States Supreme Court. These three apportionment methods will be discussed to explore the legal problems inherent in transporting Missouri River or Tuttle Creek Reservoir water to western Kansas.

\[257\text{ See supra note 79.}\
\[258\text{ See supra note 141, at 642-82.}\
\[259\text{ Besides the three permanent methods discussed, two others should be noted. The water users themselves in two or more states could conceivably enter into private agreements. Or, the states by reciprocal legislation could apportion the water. One problem with the private agreement is its enforceability. A problem with reciprocal legislation is the ability of either state to repeal the legislation. 2 Waters and Water Rights § 130.2, at 296-99 (1967).}\

2. Interest of Upstream and Downstream States

a. Interstate Compacts

i. Between Kansas and Downstream States

Of the three methods of apportioning interstate water, the most preferable would appear to be the interstate compact, since the result would be achieved through direct negotiation among the states. The United States Constitution requires any compact between states to be approved by Congress, however, so the federal government would ultimately be involved. As shown earlier, compacts are nothing new to Kansas.

An interstate compact might be required for the use of water from Tuttle Creek Reservoir as well as from the Missouri River. In either case, the compact, stated in the simplest possible terms, might provide that Missouri (and perhaps other downstream states) is entitled to a certain quantity of flow from the Missouri and Kansas Rivers. The existing Kansas-Nebraska Big Blue River Compact can serve as an example. It allocates the water of the Big Blue River Basin between Kansas and Nebraska as follows:

1. Nebraska must regulate diversions on Nebraska streams so that the “minimum mean daily flows” at the stateline gaging stations are at certain prescribed rates during the months between May 1 and September 30. For example, on the Big Blue River, Nebraska must insure that the minimum mean daily flow during the months of May and June is forty-five cubic feet per second; for July, eighteen cubic feet per second; for August, ninety cubic feet per second; and for September, sixty-five cubic feet per second.

2. To accomplish the above minimum flows, Nebraska is required to close or limit certain natural-flow appropriators, enjoin persons not holding natural-flow appropriations, and regulate withdrawals from wells located in the alluvium if necessary.

3. Nebraska must limit the storage capacity of reservoirs in the river basins in Nebraska to certain prescribed capacities.

4. Kansas has the right to all water flowing into the state under these restrictions and also to all water originating in Kansas.

5. Neither state may divert water out of the Big Blue River Basin without approval of the compact administration.

The existing Republican River Compact between Kansas, Nebraska, and Colorado handles the allocation differently. In this compact, the states have agreed on the total quantity of water originating in each of the subbasins of the Republican River on an annual basis, which the compact labels as the “average annual virgin water supply.” The Compact then allocates for the use of each state a total amount of water comprised of the sum of the agreed upon percent-

\[260\text{ U.S. CONST. art. I, § 10, cl. 3.}\]
\[261\text{ KAN. STAT. ANN. § 82a-529 (1977).}\]
\[262\text{ Id., art. V, cl. 5.2(b).}\]
\[263\text{ Id., art. V, cl. 5.2(b)(1-4).}\]
\[264\text{ Id., art. V, cl. 5.2(c).}\]
\[265\text{ Id., art. V, cl. 5.3.}\]
\[266\text{ Id., art. V, cl. 5.4. See supra text accompanying notes 98-102.}\]
\[267\text{ KAN. STAT. ANN. § 82a-518 (1977).}\]
\[268\text{ Id., art. III.}\]
age from each subbasin. For example, the South Fork of the Republican River originates in Colorado, flows into Kansas, and then into Nebraska before it joins the North Fork of the Republican. The Compact stipulates that the average annual virgin water supply of the South Fork is 57,200 acre feet, and it divides a portion of this water among the states as follows: Colorado, 25,400 acre feet, Nebraska, 800 acre feet, and Kansas, 23,000 feet.269 How this Compact is administered is unclear. Presumably the water rights administrator in each state should not allow appropriations to exceed the allocated amount to each state. The Big Blue Compact method would be much preferred from the standpoint of proof of a violation of the compact by the upstream states.

A compact between Kansas and Missouri for allocation of the water of the Missouri River would involve some method of providing Kansas with the amount of water needed to ship west while preserving certain minimum flows for Missouri and other downstream states. There would also be some time element factored into the allocation, since the flow in the Missouri varies considerably month by month.270

Since the Missouri River is a gaining stream,271 and since there has been major flooding of the Missouri River in the past, the taking of water during peak flow periods from the Missouri River might well be viewed by Missouri and points downstream as a positive, rather than a negative, development. Non-flood period diversions, however, would probably require difficult negotiations. The same considerations would be taken into account if there were a compact for an allocation of the water from the Kansas River to allow Kansas to export Tuttle Creek water to the western part of the state. The federal government’s interest in preserving navigation on the Missouri River272 would also have to be considered, but since any compact would have to be approved by Congress, this interest would likely be protected.

ii. Between Kansas and Upstream States

Of considerable concern to Kansas would be whether there would always be enough water left in the Missouri River by Kansas’ northern neighbors to enable Kansas to ship water west. Since Kansas already has a compact with Nebraska concerning water in the Big Blue River, which feeds Tuttle Creek Reservoir, no new compact would need to be negotiated between these two states for that water. There is, however, no compact that allocates water among Wyoming, Montana, North Dakota, South Dakota, Nebraska, Minnesota, Iowa, Kansas,

269 Id., art. IV.
270 Department of Interior statistics on the flow of the Missouri River at Hermann, Missouri, located approximately 60 miles west of St. Louis, from September, 1978, through October, 1981, show a peak flow of almost 200,000 cubic feet per second in March, 1979, and a low of about 25,000 cubic feet per second in January, 1981. The long time average flows range from a high of just over 100,000 cubic feet per second for the month of June, and a low of about 30,000 cubic feet per second for December. U.S. DEPT. OF INTERIOR, GEOLOGICAL SURVEY, WATER RESOURCES REVIEW FOR OCTOBER 1981.
271 Annual flow also varies considerably. For example, for the 10-year period from 1960 to 1969, the annual flow of the Kansas River at Bonner Springs, Kansas, ranged from 2,028,000 acre feet in 1966 to 8,464,000 acre feet in 1961. STAFF OF SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, 94TH CONG., 2D SESS., WATER RESOURCES OF THE MISSOURI RIVER BASIN 9-6 (Comm. Print 1976).
272 See supra text accompanying note 140.
and Missouri. A compact would have to be negotiated in some form similar to those discussed above.\footnote{273}{See supra text accompanying notes 261-69.}

While there is no existing compact among these states, there has been communication in the past, and there already exists a framework under which discussions could be carried on. The Missouri River Basin Commission, formed first in 1945 as the Missouri Basin Inter-Agency Committee, is composed of the governors of Colorado, Iowa, Kansas, Missouri, Minnesota, Montana, Nebraska, North Dakota, South Dakota, and Wyoming, as well as representatives of several government agencies, including the Corps of Engineers and the Bureau of Reclamation.\footnote{274}{Each of the states that would be essential to a compact protecting water supplies for export to western Kansas is therefore already a member of this commission.}

\subsection{Congressional Allocation}

An alternative to the interstate compact would be direct involvement by Congress in formulating the water allocation plan. To date Congress has only been involved once in such planning. The Boulder Canyon Project Act\footnote{275}{43 U.S.C. §§ 617-617t (1976).} concerned the allocation of the water of the Colorado River between the upper basin states of Wyoming, New Mexico, Colorado, and Utah and the lower basin states of Nevada, Arizona, and California. The Act also provided for the distribution of waters among states in the lower basin by requiring approval of interstate compacts among the states involved.\footnote{276}{Id., at § 4(a).} The Act was construed in the monumental case of \textit{Arizona v. California},\footnote{277}{373 U.S. 546 (1963).} in which the Supreme Court held that Congress had made a statutory apportionment of the Colorado River, rendering the doctrine of equitable apportionment irrelevant. Congress had done so by its prior approval of certain compacts should they be ratified by the states involved, and by giving the Secretary of Interior the power to enter into contracts for certain amounts of water with users in the lower basin states should the compacts fail to be ratified by all of the states involved.\footnote{278}{Id. at 565.}

Dean Meyers has made several arguments for congressional apportionment over interstate compacts or Supreme Court apportionment.\footnote{279}{Meyers, \textit{The Colorado River}, 19 Stan. L. Rev. 1, 46-53 (1966) [hereinafter cited as Meyers].} First, congressional action may be more expeditious, since a compact may never be enacted and a court case of this complexity can seldom be completed in less than ten years.\footnote{280}{Id. at 48.} The time involved in successfully negotiating a compact has ranged from two years to twenty-seven years.\footnote{281}{The Republican River Compact took two years, while the Connecticut River Compact took 27 years. \textit{King, Interstate Water Compacts}, in \textit{Water Resources and the Law} 355, 400-01 (1958).} Second, the ultimate division of the water will be as satisfactory if done by Congress as if done otherwise.\footnote{282}{Id., at 48. In this case, the negotiators are the congressional delegation rather than appointed commissioners. The only difference might be that a state has no veto power, but Dean Meyers argues that "some substantial residue of a veto power remains in the Senate if the State seriously objects to the division." Id.}
congressional apportionment is a better institutional arrangement than those produced by a Supreme Court apportionment.\textsuperscript{283}

c. Equitable Apportionment by the United States Supreme Court

The Constitution gives the Supreme Court jurisdiction to handle controversies between two or more states.\textsuperscript{284} The Court has exercised this jurisdiction in cases involving disputes between states over the allocation and use of the water of rivers that either form the boundary between the states or flow from one state into another.

Kansas is no stranger to such litigation. In the 1907 case of \textit{Kansas v. Colorado}\textsuperscript{285} the Court decided its first major interstate water dispute and announced the principles of the doctrine of equitable apportionment. The case was brought by Kansas, then a riparian doctrine\textsuperscript{286} state, against Colorado, a prior appropriation\textsuperscript{287} state. Kansas claimed that the inhabitants of Colorado were taking or threatening to take an unreasonable share of the water of the Arkansas River, which flows from southeastern Colorado into southwestern Kansas. Although the Court held that Kansas had not suffered enough detriment from Colorado’s use and rendered judgment for Colorado, it left the way open for Kansas to file another suit should the use of the water by Colorado increase at a later time.\textsuperscript{288}

The essence of equitable apportionment may be summarized as follows. Each state stands on the same level as every other state in the union, and no one state may impose its laws on another state. When the actions of one state affect another state, however, the ensuing dispute becomes one for the Supreme Court to decide in such a way as to recognize the equal rights of both and to establish justice between them. Concerning the overuse of water by one state to the detriment of another, the Court stated:

We must consider the effect of what has been done upon the conditions in the respective states, and so adjust the dispute upon the basis of equality of rights as to secure as far as possible to Colorado the benefits of irrigation without depriving Kansas of the like beneficial effects of a flowing stream.\textsuperscript{289}

Before the Court will actually make an allocation of the water, it must find that there is a clear harm to the complaining state. Kansas had simply failed to show this crucial element in this case.

An interesting and relevant facet of the \textit{Kansas v. Colorado} case involves the

\textsuperscript{283} Id. The standard used by the Supreme Court in its “equitable apportionment” is vague at best. \textit{See infra} text accompanying notes 302-04. Additionally, the Supreme Court, because of its rule that there must be substantial harm by one state to another before it will adjudicate disputes dealing with interstate water, \textit{Kansas v. Colorado}, 206 U.S. 46 (1907), perhaps could not even become involved until the project was built and water from the Missouri River or Tuttle Creek Reservoir was being diverted. Nor is the Supreme Court as well equipped as are the states or Congress to deal with the mass of technical data necessary to decide apportionment cases. Finally, Congress has the staff assistance necessary for this kind of project and could therefore do it more inexpensively than could the Supreme Court. \textit{Meyers, supra} note 279, at 49-50.

\textsuperscript{284} U.S. CONST. art. III, § 2.

\textsuperscript{285} 206 U.S. 46 (1907).

\textsuperscript{286} \textit{See supra} text accompanying notes 15-39.

\textsuperscript{287} \textit{Id.}

\textsuperscript{288} 206 U.S. at 117-18. A later adjudication on the same issue resulted in the same “not enough detriment” finding by the Court. \textit{Colorado v. Kansas}, 320 U.S. 383, 400 (1943).

\textsuperscript{289} 206 U.S. at 100.
differing state water doctrines held by Kansas and Colorado in 1907. As previously mentioned, Colorado was a prior appropriation state, so it argued that “first in time, first in right” should be the governing principle of the decision. Kansas, in contrast, was a riparian doctrine state, so it argued that the common law “natural flow” theory, which would have required Colorado to leave the flow of the Arkansas River undiminished in both quantity and quality, should prevail. The Court refused to adopt either theory, since to do so would have favored one state’s law over the other’s, and instead adopted the rule that there should be an “equitable” division of the water.290

The issue of divergent state water doctrines found in the Kansas v. Colorado dispute is clearly relevant to the present inquiry. Were the Supreme Court presented with a case involving, for example, Missouri and Kansas regarding the division of the water of the Missouri River, or the taking by Kansas of water from Tuttle Creek Reservoir, the same type of question—two states with two basically different water law doctrines—would be presented. Kansas has been a prior appropriation state since 1945, while Missouri is a riparian doctrine state. As a whole, the Missouri River Basin is composed of a western group of prior appropriation states—Kansas, Colorado, Nebraska, Wyoming, Montana, North and South Dakota—facing an eastern tier consisting of one riparian state—Missouri—and two states with a history of riparian law but currently with a permit system resembling the prior appropriation doctrine291—Iowa and Minnesota. How would the Supreme Court handle a controversy among these states today? The answer to this question must be sought through an examination of several other equitable apportionment cases handed down by the Supreme Court.

The Court decided Wyoming v. Colorado292 in 1922. Both states were then, and still are, prior appropriation states. Wyoming sought to prevent Colorado from certain uses and diversions of the Laramie River, which arises in Colorado and flows in a northerly direction into Wyoming. Residents from both states had made appropriations along the length of the river, in widely differing amounts and with widely differing priority dates. Wyoming’s claim to priority rested on two grounds. First, Wyoming objected to the diversion of water by Colorado from the Laramie River watershed to another watershed, because the diversion would prevent Wyoming from having the full use of the water in the river. Second, Wyoming claimed that by reason of priority in time, she and her citizens were prior in right. The Supreme Court distinguished Kansas v. Colorado on the ground that each state in that case had a different water doctrine; in this case both states had historically used the prior appropriation doctrine in granting and recognizing the water rights of their citizens. The Court held that in a dispute between two prior appropriation states, the law of prior appropriation would apply.293

The Court decided New Jersey v. New York294 nine years later. This case in-

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290 Id. at 117.
291 See Missouri Basin, supra note 11, at 16-20, 104-06.
292 259 U.S. 419 (1922).
293 Id. at 470-71. See 2 Waters and Water Rights § 132.4, at 333-39 (1967), in which Professor Corcoran shows that there are several modifications to the prior appropriation doctrine when used to allocate streams among competing states. In fact, what the Court did in Wyoming v. Colorado was “mass allocation.” Id.
294 283 U.S. 336 (1931).
volved a dispute among New Jersey, New York, and Pennsylvania, all riparian doctrine states. New York wanted to divert water from the headwaters of the Delaware River, which flows southward from New York forming the boundary first between New York and Pennsylvania and then between New Jersey and Pennsylvania. The Court refused the request of New Jersey to apply strict riparian law, even though all the states involved in the dispute conformed to that doctrine. Instead, it allowed the interbasin transfer proposed by New York, which would have been anathema to strict riparian law, on the vague and undefined “equitable apportionment” principle announced in Kansas v. Colorado.295

The most recent apportionment case, Nebraska v. Wyoming,296 was decided in 1945. It involved a dispute among Nebraska, Colorado, and Wyoming concerning the water of the North Platte River, which arises in Colorado, flows northward into Wyoming, and finally turns east and flows into Nebraska. The earliest appropriations on the river were generally downstream, with the larger ones in Nebraska near the Nebraska-Wyoming border. A large reservoir was constructed by the Bureau of Reclamation in Wyoming in the early 1900s, and another large project was begun in the early 1930s. This latter project, together with the extreme drought of the 1930s, caused Nebraska to bring the lawsuit. Nebraska claimed that its present and future water shortages were caused by misappropriation of the water by the other two states. Colorado’s motion to dismiss for lack of a present controversy was denied by the Court.297 The Court found that when the flow of a river has been long overappropriated and the states are claiming not only present but future uses, a justiciable controversy exists.298 All that needs to be shown is that the claims to the water exceed the supply.299

Since all three states were prior appropriation states, one would expect the Court to apply that doctrine to the controversy, as it did in Wyoming v. Colorado twenty-three years earlier. While the Court recognized the principle,300 it went on to say that it need not apply it literally, and that there are other factors that merit consideration:

Apportionment calls for the exercise of an informed judgment on a consideration of many factors. Priority of appropriation is the guiding principle. But physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former—these are all relevant factors. They are merely an illustrative not an exhaustive catalogue. They indicate the nature of the problem of apportionment and the delicate adjustment of interests which must be made.301

No clear notion of what stand the Court would apply in a future dispute among the states of the Missouri River Basin, some of which are prior appropria-

295 Id. at 343.
296 325 U.S. 589 (1945).
297 Id. at 611.
298 Id.
299 Id.
300 Id. at 618.
301 Id.
tion states, one of which is a riparian doctrine state, and two of which are neither strictly riparian or appropriation states, can be gleaned from these cases. As is shown by *Nebraska v. Wyoming*, the Court certainly would not restrict itself to pure prior appropriation considerations even if the dispute were among prior appropriation states such as Kansas and Nebraska. In a dispute between states with differing water doctrines, such as Kansas and Missouri, the Court would be faced with a *Kansas v. Colorado* situation, and the standards given in that case are unclear and imprecise.

It is this very lack of a clearly enunciated standard that helped convince Dean Meyers that congressional allocation is generally preferable to judicial allocation.\(^{302}\) He concluded that the process labeled "equitable apportionment" is "a vague set of standards that are impossible to quantify,"\(^{303}\) leaving the justices of the Court uneasy and unwilling to adjudicate interstate water controversies. Such a reluctance, he concludes, leads to judicial abstinence that "in essence favors the upstream state."\(^{304}\)

It should also be recalled that the Court will not entertain such a suit unless and until there is substantial harm to a downstream state,\(^{305}\) consisting of either actual damage in the past or the threat of substantial damage in the near future.\(^{306}\) Does this mean that Missouri could not bring suit until the project began diverting water to her detriment, or that Kansas could not bring suit in the form of a declaratory judgement action prior to constructing such a project? Probably not. Although the federal constitution requires a case or controversy,\(^{307}\) and although two of the apportionment cases involved rivers that were fully or excessively appropriated, the case or controversy requirement would probably be met in a case such as the proposed diversion here. If Kansas, either by herself or with the help of Congress, actually began planning such a diversion, there would be a "definite and concrete" controversy, one that is neither "academic [n]or moot."\(^{308}\) Furthermore, the Declaratory Judgment Act of 1934\(^{309}\) would provide the procedure by which either Kansas or Missouri could bring the action.\(^{310}\)

3. Summary

Of the three methods of settling interstate controversies concerning water distribution, judicial apportionment appears the least satisfactory because of the vague and almost meaningless standard the Court has used to decide cases in the past. Between the interstate compact and congressional apportionment, the arguments for the latter made by Dean Meyers are persuasive. Yet there are at least two factors concerning the Missouri River Basin that may distinguish it from the Colorado River Basin, about which Dean Meyers made his conclusions.

\(^{302}\) See supra text accompanying notes 279-83. The National Water Commission also supports this view. See Johnson, supra note 1, at 61-66.

\(^{303}\) Meyers, supra note 279, at 49.

\(^{304}\) Id. at 30.

\(^{305}\) See supra note 288.


\(^{307}\) See U.S. CONST. art. III, § 2, cl. 1.


\(^{310}\) See 2 WATERS AND WATER RIGHTS § 130.2, at 298; Johnson, supra note 1, at 62-66.
First, there is a physical difference between the two basins. The Colorado River arises in an arid area and grows by the addition of waters from tributaries downstream, rather than from precipitation. In the Missouri River Basin, the river is gaining, not only because of the addition of the waters of tributaries, but also because the river is flowing from a semiarid area to a water-rich area, allowing the river to gain from precipitation. There is annual flooding on the Missouri River and this flooding is the primary reason for the many reservoirs that have been constructed by the Corps of Engineers in the last few decades. These physical differences could make a difference in the nature of the dispute. For example, Missouri might be less likely to put up major resistance if the water that Kansas moves westward comes primarily from floodwater. Second, contact is already established among the Missouri Basin states through the Missouri Basin States Association, formerly the Missouri River Basin Commission, and prior to that the Missouri Basin Inter-Agency Committee. The existence of the Commission and its predecessors for the last thirty-five years does not necessarily mean that a compact among the states would be easily negotiated, but goodwill and scientific data exist that would help the negotiation process move more quickly. For these two reasons, the compact might be at least on a par with congressional apportionment as a method of equitably dividing the water of the Missouri River Basin among the states involved.

V. LEGAL PROBLEMS IN TRANSPORTING THE WATER

Since the idea of diverting water from eastern Kansas to western Kansas is in such an embryonic state, it is difficult to predict all the legal problems that might be inherent in it. It is presently unknown whether pipelines or canals would be used, through which counties the water would pass, whether retention reservoirs would be necessary en route, or what the destination of the water would be. In any case, one legal problem faced by the transporting agency is whether it could even obtain water rights under current Kansas law, since the water would be obtained in eastern Kansas for ultimate use in western Kansas. A second problem is whether the transporting agency could, under current laws, acquire either easements or fee simple title to the land over which the water would pass. The answer to this question ultimately depends on whether the agency could acquire eminent domain power. These two problems are addressed in this section.

A. Obtaining Water Rights at the Source and Transporting the Water

Protection of the place of origin has previously been discussed. Whether water rights could be obtained depends on several considerations, among which are whether there is unappropriated water, whether junior uses have to be protected, whether the federal government's navigational servitude must be considered, and whether there are minimum streamflow requirements. Even if these difficulties could be overcome, however, a more fundamental problem exists. Could the transporting agency obtain the necessary water rights under current law? This question has three main aspects: First, could the agency purchase or

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311 Apparently the Basin Inter-Agency Committee discussed a possible compact sometime in the 1950s. The Committee did not get past the preliminary discussion stages, nor were commissioners appointed by the states to begin actual negotiations. Interview with Robert L. Smith, Professor of Civil Engineering, University of Kansas, in Lawrence, Kan. (Dec. 1981).

312 See supra text accompanying notes 78-169.
condemn water rights if necessary; second, can a valid water right be obtained when the agency obtaining and holding it intends only the transportation of the water, as opposed to use of the water; and, last, if a federal agency were involved, would it have to follow Kansas water rights law in obtaining the rights and transporting the water?

1. Purchase or Condemnation of Water Rights in Kansas

Although the Water Appropriation Act does not specifically provide for either voluntary or involuntary transfer of water rights, it is clear that the rights are transferable. A water right is a "real property right" and real property is transferable. Furthermore, the right is "appurtenant to and severable from the land on or in connection with which the water is used." Lastly, the owner of a water right can, with permission of the Chief Engineer, change the place of use, the point of diversion, or the use made of the water. Each of these statutes supports the notion that the right may be voluntarily transferred, as do occasional transfers specifically allowed by the Chief Engineer through the years. Although the appropriation law does not specifically provide that water rights may be condemned separately from the land to which they attach, a person making proper use of his right cannot be deprived of it "other than through condemnation." Thus, despite the lack of clear statutory language, water rights may be either purchased or condemned in Kansas.

Condemnation of water rights, however, presents its own unique problems. For example, does a general power of eminent domain include the right to take a lesser estate such as a water right, or is specific statutory authorization necessary before an agency can condemn only the water rights? The rule appears to be that absent a statutory provision requiring the condemning to take a fee simple title, it can take a water right apart from the land. The various existing statutes that grant eminent domain powers use a variety of descriptions of the property that may be taken: cities may take "private property," "any interest in real property," and "water," groundwater management districts and public wholesale water supply districts may take "land and interests in land," irrigation districts may take "rights of way for ditches and canals and sites for dams, reservoirs and pumping plants and all lands [and] water rights," and private irrigation corporations may take "any lands or other property." While none of

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314 Id.
315 Id. § 82a-708b.
316 See supra text accompanying notes 29 & 30. The Chief Engineer does not pass on the propriety of the transfer of the water right, but he does pass on whether the type of use, point of diversion, and place of use may be changed. He thus has a veto over any transfer of a right, unless the water will be used for the same purpose and in the same place, and from the same diversion point. The Chief Engineer, for example, has approved change applications that have involved the sale of land and water rights from irrigators to a beef packing plant, and a transfer involving the purchase of irrigation rights by a city.
320 Id. § 26-201 (1981).
321 Id. § 12-809 (Supp. 1981).
322 Id. § 82a-1029(f) (Supp. 1981); id. § 19-3552(5) (1981).
323 Id. § 42-711 (1981).
324 Id. § 17-627.
these require the taking of a fee simple title, only an irrigation district is expressly given the power to take water rights. Additionally, there is a statute surviving from the old irrigation laws that provided that "[e]very right of use of water under this act shall be subject to the right of eminent domain, and, as public interest and economy may require, may be condemned and compensated for any other private right or property."

Although this statute is still on the books, existing water uses that stem from the old irrigation statutes would now be classified as vested rights under Chapter 82a of the Kansas Statutes. Few if any of these would exist today in eastern Kansas. In summary, it would be advisable to provide by statute that the condemning agency has the express right to condemn water rights in order to forestall any claim that it could not do so.

2. A Water Right to Transport Water

The second problem is whether the agency could transport the water to the west if the agency itself owned no land and intended only moving the water, instead of using it. The question arises because the statute defines a "water right" as "a real property right appurtenant to . . . the land on or in connection with which the water is used. . . ."

a. The Appurtenance Problem

When a farmer owns a piece of land and conducts water to his property from an adjoining or a nearby stream or from a well on his farm for irrigation use, the right clearly is appurtenant to his land. If that farmer sells his water right to a neighbor for that neighbor's irrigation or industrial use, the right would then be appurtenant to the new purchaser's land. Must a water right be appurtenant to some land at all times? If a transporting agency owns only the water right after purchasing or condemning it from a holder, or obtaining it from unappropriated water through the permit process with the Chief Engineer, the agency then would have to transport the water several hundred miles for use on lands in the west that are not owned by the agency.

Several solutions for the land ownership problem are possible. Probably the best solution would be an amendment to the Appropriation Act allowing such transportation by a nonowner of land, when the end use of the water would be legal under the Act. Even without this amendment, however, there are several persuasive arguments that could support the transportation of the water. First, the Act currently allows persons other than landowners to apply for an appropriation permit, with the rights perfected under that permit attaching to the lands.

325 Id. § 42-315. (emphasis added). Chapter 42 of the Kansas Statutes Annotated is titled "Irrigation." Included in this chapter are several sections that were passed in the 1880s and 1890s and that first established an appropriation system for Kansas, but only for irrigation use. Many of these sections have since been repealed, while others survive and must thus be read with other perhaps conflicting sections found in the Water Appropriation Act of 1945, KAN. STAT. ANN. §§ 82a-701 to -730 (1977 & Supp. 1981).

326 The existing vested rights on the Kansas River, for example, are held by either municipalities, the Kansas Power and Light Company, or the Bowersock Mills and Power Co. (hydro-electric power generation). Some of the early irrigation rights held by irrigation companies in southwestern Kansas were first obtained under the appropriation laws of the 1880s and 1890s, but for five of these companies, the rights were determined by a consent decree entered in the district court in 1916. Hopkins, Surface Water Rights in Kansas, 5 KAN. L. REV. 584, 590 (1957).

327 KAN. STAT. ANN. § 82a-701(g) (1977).
on which the water is used.\textsuperscript{328} The Act thus anticipates that in some cases nonowners can at least apply for the permit. Second, one could argue that the state, federal, or private transporting agency would be just that—an agent of the water-using landowners in western Kansas to whose lands the water rights would attach. The Act suggests this possibility by stating that “any rights to the beneficial use of water perfected under such application shall attach to the lands on or in connection with which the water is used and shall remain subject to the control of the owners of the lands . . . .”\textsuperscript{329} This interpretation is also consistent with the theory of the federal Reclamation Act of 1902, which states that “the right to use of water acquired under the provisions of this Act shall be appurtenant to the land irrigated . . . .”\textsuperscript{330} Last, one could argue that the agency transporting the water may and probably will own the canals, ditches, or pipelines used to transport the water, so that the water right could attach to the easement or fee simple title to the land being used to transport the water.

\textit{b. The Use Problem}

Another problem faced by the transporting agency is that the water is not being put to any use during transportation, but is merely being transported. One basic requirement of the appropriation doctrine is that the water not only be diverted from a source, but that it also be put to a “beneficial use,” as shown by the Kansas definition of a water right as one under which a person may “lawfully divert and use” water.\textsuperscript{331} The Act empowers the Chief Engineer to enforce the laws pertaining to the “beneficial use of water.”\textsuperscript{332} The preferential ordering of the domestic, municipal, irrigation, industrial, recreational, and power generation uses of water clearly states some of the uses that are deemed beneficial.\textsuperscript{333} The statute states that any person may apply for a permit to appropriate water to a “beneficial use.”\textsuperscript{334} Furthermore, the Chief Engineer’s published administrative regulations define beneficial use as including “domestic, stock watering, municipal, irrigation, industrial, recreational, water power, and artificial recharge.”\textsuperscript{335} Is the mere transporting of water a beneficial use, or does the statute prohibit it?

The mere transportation of water might not qualify as a beneficial use. Since the end uses of the water—irrigation or artificial recharge—would be beneficial, however, the transportation of the water for those uses should be beneficial as well. The agency argument previously mentioned would be particularly applicable, since the use by the principal, namely the farmer’s irrigation use, could be imputed to the agent. All irrigation water has to be transported to a destination, and the only differences here are that a separate entity transports the water and the distance the water is transported is greater than normal. Perhaps the best solution here as well would be an amendment of the Act that would provide that the transportation of water by an agency is a beneficial use.

\textsuperscript{328} \textit{Id.} § 82a-708a.

\textsuperscript{329} \textit{Id.}

\textsuperscript{330} Reclamation Act of 1902, ch. 1093, § 8, 32 Stat. 388, 390.


\textsuperscript{332} \textit{Id.} § 82a-706 (emphasis added).

\textsuperscript{333} \textit{Id.} § 82a-707.

\textsuperscript{334} \textit{Id.} § 82a-708a (emphasis added).

3. Applicability of Kansas Water Rights Law to a Federal Agency

The problems under state law would not be eliminated if a federal agency were involved, since if the projects were built under the aegis of the Reclamation Act of 1902, the federal agency would have to follow state law procedures in obtaining water rights for the project. This conclusion is supported by the recent case of California v. United States;336 in which the Bureau of Reclamation was attempting to impound unappropriated water as part of the Central Valley Project without complying with state law. The California State Water Resources Control Board had attempted to attach conditions to the permits it would issue to the Bureau.

The Act provides that:

Nothing in this Act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use or distribution of water used in irrigation, or any vested right acquired thereunder, and the Secretary of the Interior, in carrying out the provisions of this Act, shall proceed in conformity with such laws. . .337

The Supreme Court held that the Bureau had to obtain the rights connected with this project in strict conformity with state law.338 Similarly, if Kansas law presents the various problems mentioned above, those problems will have to be resolved regardless of whether the agency involved is state or federal since any agency would have to obtain its water rights under the procedure set forth in the Kansas Water Appropriation Act.

B. Eminent Domain Power for Acquisition of Land En Route

The agency most likely to do the transporting of the water would be a federal agency, although a state agency or even a local district could conceivably perform such a role.339 Do these agencies have the power of eminent domain to condemn land across the state for purposes of water transportation?

If the project were built by the Bureau of Reclamation, it would have the power "to acquire any rights or property . . . by purchase or by condemnation under judicial process, and to pay from the reclamation fund the sums which may be needed for that purpose . . ."340 Additionally, an 1890 federal law reserved to the United States a right of way for ditches and canals on all lands patented after that date west of the one-hundredth meridian.341 Since roughly one-third of the State of Kansas lies west of the one-hundredth meridian, any land patented after 1890 in that area would also be subject to this express reservation.342

If the project were instead built under state authority, Kansas would have the

338 438 U.S. at 679. A possible exception is that the federal government is not bound by a state's ordering of use preferences if that ordering is contrary to the Reclamation Act's preference for irrigation uses.
339 See infra text accompanying notes 132-33.
341 Id. § 945.
342 However, a 1964 federal statute requires that the Secretary of Interior pay just compensation for lands utilized for such ditches. 43 U.S.C. § 945a (1976).
inherent power as a sovereign to take private lands for public use. While nothing in the Kansas Constitution limits this power, the Constitution of the United States requires the state to pay just compensation and afford the landowner due process of law. The state legislature itself probably would not be the condemning authority; instead, the state would delegate the condemnation power to some state agency. Such a delegation of the condemnation power must be by an express grant of the legislature. In the State of Kansas, several relevant political subdivisions and state agencies currently have condemnation power: counties, cities, county special improvement districts, water supply and distribution districts, ground water management districts, irrigation districts, public wholesale water supply districts, and rural water districts. Even certain private irrigating and pipeline corporations holding certificates of convenience and necessity from the Kansas Corporation Commission could be given the eminent domain power for canals and for land for pipelines.

In contrast, the two main state agencies that deal with water supply policy and water rights problems—the Division of Water Resources of the Kansas Board of Agriculture and the Kansas Water Office—do not have general condemnation powers. The statutes could be amended by the legislature, however, to give either agency general condemnation powers for the purposes of this project.

It is unlikely that such a massive project as this would be undertaken by a private corporation, but Kansas law does provide for the establishment of "irrigation corporations" for the purpose of constructing, maintaining, and operating reservoirs, ditches, and canals to divert, convey, store, and deliver water for the purpose of irrigating land. These corporations are expressly granted the right to condemn "any lands or other property." Finally, there is a statute in the irrigation chapter that appears to give general eminent domain authority to any "person, association or corporation" that is "lawfully entitled to construct, maintain, and operate" certain works, including canals and ditches. While the statute does not specifically mention irrigation as a purpose for these works, it does mention works for the storage of water as well as works for raising water from any source for conveying to the place of ultimate

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343 Even though the ultimate use would be private, the project would probably be public until the project water is sold or otherwise delivered to the destination.
344 U.S. CONST. amend. V & XIV.
345 Isley v. Bogart, 338 F.2d 33, 34 (10th Cir. 1964).
346 KAN. STAT. ANN. §§ 19-2701, -2715, -2801, -15,139 (1981); id. § 68-114 (1980). Counties would have a general power under the home rule power, but have specific power for purposes such as roads and sewage projects.
347 Id. § 12-809 (Supp. 1981); id. § 13-1023 (1975); id. § 26-201 (1981).
348 Id. § 19-2765 (1981).
349 Id. §§ 19-3502 to -3511. These districts may be established in only four counties in extreme eastern Kansas.
350 Id. § 82a-1028(f) (Supp. 1981).
351 Id. § 42-711 (1981).
352 Id. § 19-3552(5).
353 Id. § 82a-619 (Supp. 1981).
354 Id. § 17-618.
355 Kansas law does give the Kansas Water Office condemnation power in one specific watershed program. KAN. STAT. ANN. § 74-2609(4) & (5) (Supp. 1981).
356 Id. §§ 17-625 to -628 (1981).
357 Id. § 17-627.
358 Id. §§ 42-101 to -730.
use.\textsuperscript{359}

If a special state agency were established for the purpose of obtaining water rights in eastern Kansas, transporting the water to the west, and distributing it there, the statutes definitely should contain express language enabling this agency to condemn the necessary water rights and to condemn land along the way.

VI. LEGAL PROBLEMS AT THE DESTINATION—WESTERN KANSAS

A lack of knowledge of the probable physical structure and layout of an intra-state water diversion scheme again limits knowledge of many of the legal problems that would arise at the western terminal of the system. The unanswered questions are manifold: for example, whether one huge canal would feed branches and lateral canals for use on individual farms; whether there would be retention reservoirs; and whether there would be replenishing of groundwater aquifers followed by well pumping, or direct irrigation from canals. Each of these possibilities would present different legal questions that would have to be answered when the planning for the project was further along. There are two questions, however, that would require answers regardless of the physical method of providing the water. First, how will individual farmers obtain their water rights? Second, would the 160-acre limitation historically imposed on reclamation projects be in effect on this particular project?

A. Water Rights for Transported Irrigation Water

If a federal agency were not involved in the water diversion project, the procedure under which the irrigator would secure his water rights would be that under the then current version of the Kansas Water Appropriation Act. Since the drafters of the current Act did not anticipate the necessity of large scale water transfers to shore up depleting resources, the Act might require amendment to effectively solve some of these problems. For example, if the irrigator already had a water right to pump from a well or to draw from a stream, could he simply get project water under his old water right? This might be the case if the transported water were used to replenish the aquifers from which the irrigator had been drawing, or sent down the same stream he had been using. The amount of water he could draw could be governed by his original appropriation rights, and the priority date could be that of his original appropriation right.

Conceivably the old right might be irrelevant, however. For example, if the irrigator were to obtain project water more than three years after his groundwater aquifer had been depleted, he might be deemed to have abandoned his water right.\textsuperscript{360} Even if the right were still valid and being used, the question would remain of how to divide the project water equitably between those with previous water rights and those with potentially equal need who, prior to completion of the project, had never obtained a water right. Perhaps a scheme could be developed within the Act to allow persons with existing water rights to exchange or transform those rights for rights to project water, the priority date of

\textsuperscript{359} Id. \textsuperscript{3} § 42-317.

\textsuperscript{360} See id. \textsuperscript{3} § 82a-718 (1977) and text supra accompanying note 31.
the old right losing its significance on the exchange, thus allowing old and new water users to be treated equally with respect to use of the project water. This, however, might violate the basic premise of the current Appropriation Act that first in time is first in right.\textsuperscript{361} Alternatively, the Act might be amended to resemble the act governing the federal Central Arizona Project,\textsuperscript{362} which will provide water from the Colorado River for irrigation and other uses in central Arizona. There, lands that have a "recent irrigation history" may receive project water.\textsuperscript{363} Irrigators who were using other sources may have to exchange their rights from those sources for rights to project water.\textsuperscript{364} Those who make this exchange are given priority on project water in times of shortage to the extent of the quantity of water exchanged.\textsuperscript{365}

Another possibility when the federal government is not involved would be a state agency that not only obtains the water rights in the east and transports the water to the west, but then, rather than transferring the water rights to individuals, would contract with the farmers for the water itself. This procedure would be similar to that followed at current federal reclamation projects. For example, the Kansas Bostwick Irrigation District, a federal reclamation project, first obtained the necessary water rights on the Republican River. The District then contracted with the individual irrigators for water on an availability basis, with no single irrigator having any preference by time over another. In a given year, each irrigator within the district receives the same number of acre inches of water for each acre of land he irrigates.

Were the federal government involved via the Bureau of Reclamation, the procedure discussed in the preceding paragraph would be the one most likely to be used. Originally, the reclamation projects had the Secretary of Interior dealing with each individual water user, but now the law requires that there be a water users' association to contract with the Secretary to undertake the repayment obligation. This undertaking must be backed by the association's power to tax lands within the project.\textsuperscript{366} These associations then deal with the individual water users.

If a problem arose concerning holders of existing rights who claimed priority due to their priority dates, the enabling legislation for the project could be drafted to protect their interests. For example, the Imperial Valley Project in California involved holders of previously obtained vested rights to water from the Colorado River transported via a privately owned canal. When the reclamation project act was passed, it protected the holders of these vested rights by providing that project works should be used for "irrigation and domestic uses and satisfaction of present perfected rights."\textsuperscript{367} Another example is the scheme mentioned above in connection with the Central Arizona Project.\textsuperscript{368} Such provisions could be put in either state legislation for a state project, or in federal legislation for a federal project.

\textsuperscript{363} Id. § 1524(a).
\textsuperscript{364} Id. § 1524(d).
\textsuperscript{365} Id. § 1524(e).
\textsuperscript{366} See id. §§ 511 & 512. See also 2 Waters and Water Rights § 110.2, at 122 (1967).
\textsuperscript{368} See infra text accompanying notes 362-65.
B. Reclamation Act 160-Acre Limitation

If this project were planned and built as a federal government reclamation project, it could include a limitation on the amount of land that could receive project water. To combat land monopoly, Congress included the “excess-land” provision in the Reclamation Act of 1902: “No right to the use of water for land in private ownership shall be sold for a tract exceeding 160 acres to any one landowner.” Later additions to the Act provide that owners must agree, before construction begins, to dispose of excess lands at a price acceptable to the Secretary of Interior. That price is fixed by the Secretary without reference to value increases caused by the proposed construction of the irrigation works. A provision such as this in this project would limit the use of the project water to small land holdings in western Kansas, or, as envisioned by the Act, would force the sale of excess land after a period of time.

Whether the acreage limitation would be a factor in this project would depend entirely upon the legislation creating the project. While most reclamation projects have had such provisions, some have been exempted entirely from the limitation, while others have had modified provisions. Yet another, the Imperial Valley Project in California, contained the limitation, but also contained a clause that project water would be used for “irrigation and domestic uses and satisfaction of present perfected rights.” When the Imperial Valley Project was conceived, a private company was already delivering water from the Colorado River to large landowners in the valley. The Supreme Court was recently asked to decide whether the 160-acre limitation applied to those landowners. The Court, in Bryant v. Yellen, held that the limitation does not apply to those private lands using water rights that were already perfected under state law when the project act became effective. Congress is currently debating various bills that would both raise the acreage limitation to either 960 acres or 1280 acres, and reform the 1902 Act in several other important respects.

VII. INSTITUTIONAL PROBLEMS

The institutional problems inherent in a proposal to transport water to western Kansas have received some attention in this Article. The probability of federal involvement in the project has also been acknowledged. Many of the constraints on using currently established institutional arrangements have therefore been discussed while examining the powers of those institutions. This section

370 Id. § 423c.
371 Id. § 418.
372 An example of an exempt project is the Colorado Big Thompson Project, Colorado. See also TRELEASE, supra note 141, at 742; 2 WATERS AND WATER RIGHTS § 120.2, at 215-16.
375 Id. at 373.
377 The various Kansas agencies and special districts that have jurisdiction over water problems were discussed in the Kansas law summary, supra text accompanying notes 12-77. The necessary powers of various existing agencies to acquire water rights and land were discussed in the section on transportation problems, supra text accompanying notes 312-38. An agency to distribute water or water rights in the west was discussed in the section on western Kansas, supra text accompanying notes 360-76.
will concentrate on the existing agencies and will ask whether the present powers and design of state agencies under Kansas law are satisfactory to handle a water diversion project of this magnitude, be it a federal or a state project.

A. Adequacy of Current State Law for a Federal Project

In a traditional federal reclamation project, the federal Bureau of Reclamation builds the project's dams, reservoirs, and canals, and contracts with a water users' association for the repayment obligation and for the distribution of the water to individual users. The Bureau purchases or condemns the rights of way for the land necessary for the project, including the land needed for canals and ditches. The Bureau may obtain the water rights directly, or, as in the case of the Bostwick Irrigation District in Kansas, an irrigation district may obtain the rights from the state.

Since there have been several reclamation projects built in Kansas, Kansas already has a mechanism, in the form of irrigation districts, to handle the repayment and the water distribution under such projects. The irrigation district statutes were enacted for this very purpose, and they contain language making specific reference to the federal reclamation laws. These districts would probably deal with a large scale federal diversion project.

The very scope of this proposed project, however, may require a closer examination of the adequacy of these districts. The size of the existing irrigation districts is reasonably uniform and relatively small. The largest, the Bostwick District, irrigates approximately 30,000 acres and covers parts of two counties. The Kirwin District irrigates fewer acres but extends over three counties. In contrast, the Ogallala aquifer is of immense size, underlying perhaps one-fifth of the state's entire area. Were water diverted westward to either replenish this aquifer or replace it for some irrigation, would the district need to be as large as the area covered by the Ogallala? Even if one district were broken up into several smaller districts, each having the size of the present groundwater management districts, these irrigation districts would still be vastly larger in size than the Bostwick District. Since the Kansas irrigation district law does not expressly limit the size of the districts, an alternative organizational structure would be a series of much smaller districts, the boundaries of which would more closely conform to actual irrigation usage. While the project would definitely require a comprehensive master plan, and perhaps a state agency to oversee the entire project, each of the smaller districts could be the contracting agency with the federal government and the distributor of water to the irrigators. Since the Chief Engineer must approve the establishment of these districts, his office could insure that the system would be functional. The Kansas Water Office and its professional staff would also be involved in the overall water resources planning efforts. Yet another alternative would be the union of several irrigation districts under the umbrella of a public wholesale water supply district. The latter would contract with the federal government and then wholesale project water to the smaller member districts.

Would the Kansas groundwater management districts have any function in

the proposed diversion project? Their sizes are much greater than those of the existing irrigation districts, and by statute they must comprise a "hydrologic community of interest." Yet their function according to statute is "proper management of the groundwater resources . . . [and] . . . the conservation of groundwater resources." Since the basic supposition of this Article is that water diversion is necessary because eventually the groundwater in western Kansas will be depleted, the groundwater management districts would appear to have a limited role to play once importation is begun. However, their very existence provides a mechanism for further activity in some capacity. For example, if the diversion project consisted in part of replenishing the aquifers, there would then be additional, although "developed," groundwater over which the groundwater management district might have jurisdiction. The existing management plans, rules, and regulations of the groundwater management districts, which provide well spacing and depletion formulae for determining which well applications are approved, could have a bearing on the allocation of the water. These matters might have to be considered in any legislation involving this project, or in the contracts between irrigation districts and the federal government, and between irrigation districts and the irrigators. The enumerated powers of the groundwater management districts would also give them a possible role. They have the power to construct, operate, and maintain works for recharge, storage, distribution, and importation of water, and they are empowered to assist in managing groundwater recharge and surface water. They may also purchase land, water rights, and personal property, and could therefore probably contract with a federal or state transporting authority for project water to be distributed to local users.

B. Adequacy of Current State Law for a State Project

At the outset, it must be recognized that, since a project of this scope would probably have to be financed totally, or at least in part, by the federal government, a purely state or private project is scarcely within the realm of possibility. However, could the project theoretically be constructed by Kansas alone under current state law?

1. Under the Authority of Irrigation Districts

Irrigation districts have broad powers, including the same rights, powers, and responsibilities of other public corporations; the power of eminent domain; the power to issue bonds, levy taxes, and assessments; and the power to do and perform all acts necessary and proper to performance of powers and duties granted and imposed by statute. They can purchase and construct canals, ditches, irrigation works, reservoirs, and dams. They may purchase and condemn water rights. They have perpetual existence. In short, they appear to have all the nec-

380 Id. § 82a-1024(b)(1) (1977).
381 Id. § 82a-1020.
382 "Developed water" is water that is brought into a water system through the efforts of man. Waters and Water Rights 284 (1976).
384 See supra text accompanying notes 48-52.
386 Id. §§ 42-702 & -711 (1981).
ecessary powers to construct the proposed project, limited only by the approval of the Chief Engineer. However, a serious question exists as to whether these districts were ever intended by the legislature to be involved in such large projects. It is doubtful that the legislature envisioned one single irrigation district, or even a combination of them, constructing a mammoth system, especially when the main canal or pipeline from the east to the west would have to be at least 100 miles long, and perhaps 200 to 300 miles long. Herein lies one legal difficulty with a purely state project under current state law. The irrigation district law does not expressly require main irrigation canals to lie within district boundaries; by negative implication it seems to give the district the broad power to purchase or condemn any property anywhere for its purposes. 387 However, landowners through whose land the main canal would pass would surely complain that the legislature did not intend to allow local irrigation districts to condemn land for the main canals outside the district boundaries. Granted, in each of the existing districts the reservoirs feeding the irrigation ditches lie anywhere from just a few miles to eighty miles away. But in each of these cases, the main delivery system is the natural flow of the river itself, not a man-made canal. Also, while the Bostwick District's forty-five mile Franklin canal parallels the Republican River in Nebraska, the canal itself forms a boundary of the district and helps to irrigate lands next to the canal along its length. Such would probably not be the case with a main canal or pipeline running from eastern Kansas to western Kansas.

2. Under the Authority of Groundwater Management Districts

The same questions can be raised with respect to using the groundwater management districts as the primary agency for constructing this project. The listed powers of the district include purchasing and condemning land and water rights; constructing, operating, and maintaining works for recharge storage, distribution, and importation of water; levying water user charges and land assessments, issuing bonds, and incurring indebtedness; contracting with persons, corporations, and governments; and assisting in managing surface water and groundwater recharge. 388 These powers are, however, limited. Land holdings acquired by eminent domain cannot exceed 1000 acres per district, and a district may not acquire land by eminent domain outside the boundaries of the district. 389 The main purpose of the districts is the management of groundwater resources, and even their name suggests that they would be an improper choice as the primary agency to handle this diversion project.

3. Under the Authority of Public Wholesale Water Supply Districts

Some parts of the Public Wholesale Water Supply District Act 390 appear to overcome several of the problems mentioned in the discussion of irrigation districts and groundwater management districts. For example, the very purpose of the Act is to allow the smaller public agencies to join and form an umbrella agency to enable them to secure water on a scale larger than is feasible for the

387 Id. § 42-711.
388 Id. § 82a-1028 (Supp. 1981).
389 Id. § 82a-1028(b).
390 Id. §§ 19-3545 to -3556 (1981). See supra notes 57-60 and accompanying text.
smaller entities acting alone.391 Such wholesale water supply districts have broad powers to buy, construct, and operate the components of water distribution systems.392 Furthermore, one of the possible deficiencies of the irrigation districts, their lack of express authority to condemn land outside the boundary of the district, is overcome in the Wholesale Water Supply District Act. These umbrella districts are expressly granted the power of eminent domain "to be exercised within or without the boundaries of the district."393

But, like the problem with irrigation districts—that the enabling legislation did not seem to envision districts of the size required by the proposed project—so also the Public Wholesale Water Supply District Act does not envision their use for irrigation waters. The intent of the Act, although not clearly stated, appears to be that the ultimate use of water delivered by the district to its agencies will be domestic or municipal use. This conclusion is based on the language of the Act, which calls the public wholesale water supply district created a "quasi-municipal" corporation,394 and says that the district "wholesales" the water to its members. Wholesaling by the district connotes ultimate "retailing" of the water to the consumer by the cities or rural water districts that formed the wholesale district.395 The Act was passed to correct a problem at one specific location, the Hillsdale Reservation area.396 Thus, while this Act could conceivably form the basis of legislation to create an interbasin water diversion authority, it should be amended to state expressly that the purpose would include irrigation water delivery.

4. Summary

In summary, while irrigation districts appear to have the necessary power, use of one or more districts might be contested because of the very size of the project. Groundwater management districts have the power within their boundaries to handle imported water, but cannot go outside their geographical boundaries to condemn land for the main canals. Public wholesale water supply districts have broad powers to develop large projects, but they were probably not intended to obtain, deliver, and wholesale irrigation water. A better scheme might be a separate state-level agency that would act in the same role as the federal government's Bureau of Reclamation. This agency would obtain and own the water rights in the east and the land en route necessary for the transportation of the water; it would then contract with various irrigation districts or groundwater management districts for project repayment and for the project water itself. The districts could thereby be kept at their intended geographic scale. Since such a state agency does not exist at the present, legislation would have to be passed to create the agency and to define its powers.

VIII. Conclusion

This Article has attempted to examine the potential legal problems inherent in

392 Id. § 19-3552(5) & (6).
393 Id. § 19-3552(5).
394 Id. § 19-3545.
395 Id.
396 Interview with Lee Wright, Kansas Water Office, by telephone in Lawrence, Kan. (Feb. 15, 1982).
major water diversions in Kansas. While it does not pretend to be an exhaustive examination, it points out some of the legal difficulties that might be encountered during the planning of such diversion projects. Other legal problems would surface during the planning, construction, and delivery of the water, as has happened on other large scale diversion projects. Additionally, this Article has not treated the economic or engineering constraints inherent in such a project. Due to the high costs of construction, the distances involved, and the technical difficulties presented by western Kansas' higher elevation, such proposals would probably be financially impractical without a policy decision from Washington that the high plains region, including Kansas and its neighboring states, should be irrigated to allow the production of as much food as possible. Such a policy decision might result from worldwide food shortages and changing international economic conditions. What seems farfetched today may appear more practical twenty years in the future.

This Article has, however, raised numerous problems concerning the legal constraints that might be encountered both at the terminals of the diversion project and at the location of the water transportation system itself. At the eastern terminal of the system, the protection of the place of origin, viewed as both a legal and a political constraint, is formidable. Legally, an existing interstate compact with Nebraska expressly forbids interbasin transfers, potentially affecting any westward exportation of the water from Tuttle Creek Reservoir. Politically, present appropriators from the Kansas River could be expected to exert pressure at both the state and national levels to preserve their interests. Nor could Kansas depend on a continuous supply of Missouri River water for westward transportation without a compact with upstream states. Congressional consent would probably be necessary to allow the use of Tuttle Creek Reservoir water for irrigation in western Kansas. The Kansas statutes would require extensive amendment to provide for acquiring water rights in the east and for transporting the acquired water to the west. Current statutes are not clear whether a water right may be condemned, whether transportation of the water itself is a permitted use, or whether the water right must attach to some land during transportation of the water. In the west, the project water would have to be delivered to the ultimate user, raising questions of acquiring project water rights, converting present water rights to project water rights, applying current priorities to project water, and using the 160-acre limitation found in current federal Bureau of Reclamation projects. A new institutional mechanism would probably be required to administer the acquisition, transportation, and delivery of the water.