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TRANSBASIN DIVERSION

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NEBRASKA SOIL & WATER CONSERVATION COMMISSION

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This report is based upon a paper written by Ronald A. Kastanek while a senior law student at the Nebraska College of Law. After graduation in June of 1967 Mr. Kastanek reviewed the article and should accordingly be credited for its ultimate publication.

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I N T R O D U C T I O N

This transbasin diversion article constitutes a special recommendation as an integral part of the State Water Plan.

The purpose of this article is to explain the status of transbasin diversion in Nebraska, to critique Nebraska's position and recommend necessary changes to insure the full development of our natural resources.

The Nebraska Constitution provides, in part, "[T]he use of the water of every natural stream within the State of Nebraska is hereby dedicated to the people of the State."¹ Thus the people of the state as a whole should be benefited from the use of this resource.

The population of Nebraska is unevenly distributed.² Omaha, with 301,598 people, is the only Metropolitan Class City;³ Lincoln, with a population of 128,521, is the only one in the Primary Class.⁴ There are 23 First Class Cities,⁵ i.e., those whose population exceeds 5,000 but is less than 40,000. Thus, Lincoln and Omaha, with a combined population of 430,119, constitute roughly one-third of the state's 1,411,330 inhabitants. Further, of the 23 cities of the First Class, 14 are located east of Nebraska's north-south highway #281 (connecting O'Neill, St. Paul, Grand Island, Hastings, and Red Cloud), and these constitute a combined population of 156,901.⁶ The concentrated population areas, therefore, are located primarily in the eastern one-third of the state; and the trend in Nebraska during the last 20 years has been toward more urbanization, with a resultant decrease of rural inhabitants.⁷ This points toward an even more disproportionate dispersal of population in the future.

The annual precipitation distribution is somewhat analogous to population in that the higher annual rate occurs in the east and southeast regions of the

1. Neb. Const., Art. XV, section 5.

2. Nebraska Legislative Council, Nebraska Blue Book 636 (1964).

3. Id. at 476.

4. Id. at 476.

5. Id. at 476.

6. Id. at 505.

7. Id. at 636.

state where the higher population centers are.

The streams of the state mainly flow to the east and southeast providing higher runoff for the areas of greatest population. However, use of the surface water in transit may diminish its quantity and deteriorate its quality. The streamflow is quite irregular, being comprised mostly of flood flows during the spring months. This provides a highly irregular source of surface water and creates a need for additional water in many areas of the state. A possible solution is transportation of water from one basin or watershed for use in another, usually referred to as transbasin diversion.

Large scale movement of water from a basin of origin to an outside area naturally concerns those who live in the basin of origin area; and as water demands grow, transbasin diversions increasingly involve larger amounts of water transported over longer distances. Perfected methods of water transfer, however, make water a mobile factor of production.⁸ Transbasin diversions in Nebraska have been allowed. However, under what circumstances and when this may be done is not entirely clear. Discussion must begin with a review of the statutory law. In this regard two Nebraska statutes are of special interest. The first, section 46-206, provides:

The water appropriated from a river or stream shall not be turned or permitted to run into the waters or channel of any other river or stream than that from which it is taken or appropriated, unless such stream exceeds in width one hundred feet, in which event not more than seventy-five per cent of the regular flow shall be taken.⁹

Section 46-265, the second relevant law, states that:

The owner or owners of any irrigation ditch or canal shall carefully maintain the embankments thereof so as to prevent waste therefrom, and shall return the unused water from such ditch or canal with as

8. Brewer, Economics of Water Transfer, 4 Natural Resources J. 522 (1964-65).

9. Neb. Rev. Stat., section 46-206 (Reissue 1960).

little waste thereof as possible to the stream from which such water was taken, or to the Missouri River.¹⁰

Both statutes have been considered by the Nebraska Supreme Court in decisions which are discussed below. It should be noted that section 46-265 does not forbid transbasin diversions, but only requires a return of unused waters. Statutes in other states encourage transbasin diversions by providing that water need be returned only when it is reasonably practical to do so by gravity flow. For example, the Texas law states:

All surplus water taken or diverted from any running stream and not used by the appropriator or disposed of to consumers for the purposes stated in this chapter shall be conducted back to the stream from which taken or diverted, whenever such water may be returned by gravity flow, whenever reasonably practicable.

Section 46-265 could be drafted to reach a similar result. In any event the Nebraska section does not unequivocally require a return of unused waters to the original source because it also provides for return "to the Missouri River."¹² A broad interpretation of the Missouri River basin would include the entire state, and, of course, all unused waters eventually reach the Missouri River regardless of transbasin diversions within the state.

Three Supreme Court decisions have interpreted the Nebraska statutes. In 1936 the court ruled the statutes did not authorize the Department of Roads and Irrigation to grant applications for transbasin diversions. In Osterman v. Central Neb. Pub. Power & Irr. Dist.,¹³ the principal question was the validity of an order¹⁴ granting to Central Nebraska Public Power &

10. Neb. Rev. Stat., section 46-265 (Reissue 1960).

11. Tex. Rev. Civ. Stat. Ann., Art. 7579 (1954).

12. Neb. Rev. Stat., section 46-265 (Reissue 1960).

13. Osterman v. Central Neb. Pub. Power & Irr. Dist., 131 Neb. 356, 268 N.W. 334 (1936).

14. Such order was made pursuant to Neb. Comp. Stat. c. 81, Art. 63 (1929).

Irrigation District a water right permitting diversion of 600,000 acre feet of water from the Platte River. Approximately sixty percent was to be employed in irrigating lands located in the basins of the Blue and Republican Rivers. Objectors included appropriators and down-stream riparians in the Platte Valley. The riparians were permitted to object on the basis of their interest in maintaining natural sub-irrigation of their lands.

The court cited Meng v. Coffee ¹⁵ for the proposition that water usage by riparian owners was to be based upon equality, and that each riparian was required to exercise his rights reasonably and with due regard for the rights of other riparians. From this the court concluded the right to use water at common law was limited strictly to riparian lands, and that at common law there was usually no right to transport waters over a divide or watershed that enclosed the source from which it was obtained. Thus, if the common law prohibited transbasin diversion, the validity of such diversions must come from legislative enactment.

Recognizing this, the defendant Tri-County Irrigation District contended that legislative enactments allowed diversions from one watershed to another. The court disagreed and cited the original statute of 1889 which provided, in part, that "the water appropriated from a river or stream shall not be turned or permitted to run into the waters or channel of any other river or stream than that from which it is taken or appropriated." ¹⁶ The court pointed out that four years later, in 1893, the legislature amended certain sections of the law, and added the following language to the above statute: "Unless such stream exceeds in width one hundred (100) feet, in

15. Meng v. Coffee, 67 Neb. 500, 93 N.W. 713 (1903).

16. Neb. Comp. Stat. c. 93 a, Art. 11, section 6 (1889).

which event not more than seventy-five (75) per cent, of the regular flow shall be taken."¹⁷ Both statutes were combined into section 46-206¹⁸ and are in effect today, as they were when Osterman was decided.¹⁹

The court continued by noting that in 1895, the legislature enacted another provision which read as follows:

The owner or owners of any irrigation ditch or canal shall carefully maintain the embankments thereof so as to prevent waste therefrom, and shall return the unused waters from such ditch or canal with as little waste thereof as possible to the stream from which such water was taken, or to the Missouri River.²⁰

This statute, which also is still in effect,²¹ did not amend the earlier law²² according to the court. Rather, it was to be regarded as part of the Act of 1895. The Act of 1895 being the later one necessarily controlled, but the court stated that it also found an intent in both enactments to preserve the unused waters for the benefit of the source from which they were obtained.²³ As for the words "or to the Missouri River", the court held they had no bearing whatsoever on the issue under consideration.²⁴

Construing the above statutes, the court considered section 46-265²⁵ as controlling the operation of all irrigation ditches, and held it applicable to transbasin diversion because the water transported had to be carried away

17. Neb. Comp. Stat. c. 93 a, Art. II, section 6 (1893).

18. Neb. Rev. Stat., section 46-206 (Reissue 1960).

19. Neb. Comp. Stat., section 46-508 (1929).

20. Neb. Comp. Stat. c. 93 a, Art. II, section 59 (1895).

21. Neb. Rev. Stat., section 46-265 (Reissue 1960).

22. Neb. Comp. Stat. c. 93 a, Art. II, section 59 (1895).

23. Doyle, Water Rights in Nebraska, 29 Neb. L. Rev. 385 (1950).

24. 131 Neb. at 368, 268 N.W. at 340.

25. Neb. Rev. Stat., section 46-265 (Reissue 1960).

from its source by the use of irrigation canals. The court noted this created a practical limitation to the extent water could be removed from its source of supply. In line with this reasoning, the court held that a divide or watershed could not be crossed by an irrigation ditch or canal where the unused waters would not be returned to the source from which they were taken.

It is possible to read section 46-206 to permit transbasin diversions, and section 46-265 could be read as only qualifying it in providing for the return of surplus water either to the stream from which it was taken or to the Missouri River. However, due to considerations peculiar to the situation faced by the court in Osterman, such a reading was not given the above statutes. The effect of a wholesale diversion of water beyond the watershed upon the agricultural economy of the Platte Valley below the point of diversion was an important factor. The return flow augments the supply of ground and surface water and tends to protect the valuable rights of riparians to the benefits of sub-irrigation. If riparians possess such rights it seems to follow that the legislature may not abrogate them except by a procedure insuring the payment of just compensation. Thus the construction given these provisions of the irrigation code avoided a constitutional question.²⁶ Furthermore, the proposed diversion would have resulted in taking water from Nebraska via the Blue and Republican Rivers, and allow it to enter the state of Kansas, thereby creating a detriment to the local Nebraska economy.

The court, in holding for the riparian and appropriative interests, was forced into a difficult situation since the surplus from diversions to the

26. Doyle, note 23 supra.

Republican and Blue Basins would eventually reach the Missouri River. To avoid this the court simply declared that the words "or to the Missouri River" were not applicable in the Osterman case.²⁷ The result is that such a construction of section 46-265 which prohibits transbasin diversions and section 46-206 which permits them, creates an incongruous result.²⁸ In any event, the legal effect of Osterman seemed to bar transbasin diversions in all cases, even in situations where the benefits to the receiving basin would clearly outweigh the detriment suffered in the basin of origin.

The statutes were not again considered by the court for twenty-four years. Then, in 1960, the Nebraska Supreme Court decided Ainsworth Irrigation District v. Bejot.²⁹ As might be expected, it was forced to retreat from the position taken in Osterman.³⁰ In the Bejot case the plaintiffs had sought a permit to appropriate water from the Snake River for irrigation purposes. The appropriation was for one-seventieth of a cubic foot of water per second of time for each acre of land to which the water was actually usefully applied. The Ainsworth unit, which had the highest benefit-cost ratio of seven other units, was an integral part of the comprehensive Missouri River Basin Project, and was to irrigate some 33,960 acres. The Snake River Valley was not a farming area; sub-irrigation was not an issue; and the only two downstream appropriators on the Snake were small power plants that were to be compensated for any damages suffered.

27. Osterman v. Central Neb. Pub. Power & Irr. Dist., 131 Neb. 356, 368, 268 N.W. 334, 340 (1936).

28. Yeutter, A Legal-Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11 (1965).

29. 170 Neb. 257, 102 N.W.2d 416 (1960).

30. 131 Neb. 356, 268 N.W. 334 (1936).

The Snake River flows north and slightly east into the Niobrara River, which empties into the Missouri River. The plaintiff's canal was to run for about 56 miles to and through the lands to be irrigated, with the unused waters emptying into the Niobrara River where they would have been eventually carried in any event. En route, the canal would intersect and cross several smaller streams, all of which streams were tributaries of and empty into the Niobrara River. None of the water was to be returned to the Snake River.

In objection to granting a permit, the defendants claimed the appropriation would violate section 46-265³¹ because some of the water taken from the Snake River would cross the divide and eventually flow into the Niobrara--an unauthorized attempt to transport water by canal over a watershed or divide. Defendants' primary reliance was on the Osterman decision.³²

The court referred to³³ its decision in Osterman but declined to consider it controlling. It noted³⁴ the record did not show any substantial dispute concerning the fact that the Snake and Niobrara Rivers were in fact and in law a single stream, basin or watershed. The court recognized the following definition of a watershed:

. . . A river and all its tributaries constitutes a watershed, which may be defined as all the area lying within a divide, above a given point on a river or stream. The term watershed is synonymous with river basin, drainage basin, or catchment area, except in some instances, where by definition for specific purposes, in connection with specific agreements, the basin may have been extended upon the natural watershed.³⁵

31. Neb. Rev. Stat., section 46-265 (Reissue 1960).

32. 170 Neb. at 265, 102 N.W.2d at 422.

33. Ibid.

34. While both sides presented evidence, the court quoted almost entirely from the evidence presented by the Ainsworth Irrigation District. The only evidence produced by the defendant, which the court mentioned, was refuted by the plaintiff's evidence. The court noted in particular that the defendant's expert witness agreed that the definition of a watershed used by the plaintiff was an accepted one.

35. 170 Neb. at 273, 102 N.W.2d at 426.

Because the court was of the opinion that the Snake and Niobrara Rivers were one stream, basin or watershed, it concluded that the Osterman decision was entirely distinguishable as to both the facts and the law.³⁶ The court, therefore, was not required to give sections 46-206 and 46-265 a construction which varied from that given them in the Osterman case. Superficial analysis indicates the difference between the Osterman and Bejot decisions is merely one of defining watershed limits. But that is not the case. The court balanced equities in Bejot, and in so doing upheld what might otherwise have been construed to be a transbasin diversion.³⁷

The Snake River Valley is not a farming area, sub-irrigation rights do not exist there, and the court in Bejot was not confronted with allowing valuable water to prematurely leave the state should transbasin diversion be upheld. Rather, the diverted water eventually would empty into the Missouri River. However, the two decisions did involve one important similarity. In neither would the diverted water ever return to the stream of origin. In Osterman the water would have been diverted from the Platte River to the Blue and Republican Rivers; in Bejot, from the Snake into the Niobrara.

Of equal significance is the fact that the Platte, Blue, Republican, Snake and Niobrara Rivers all empty into the same river--the Missouri. Under such facts, the statutory requirements of section 46-265 would not be violated regardless of the river under consideration. Due to this, the basis of the Bejot decision has been subject to serious question. In fact, it has been suggested that the Bejot decision has nullified the watershed limitation doctrine as espoused in the Osterman case.³⁸ Perhaps the diverse holdings of

36. Id. at 276, 102 N.W.2d at 427.

37. Yeutter, A Legal-Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11, 59 (1965).

38. Johnson and Knippa, Transbasin Diversion of Water, 43 Tex. L. Rev. 1035 (1965).

the two decisions point out the lack of wisdom--indeed the futility--of attempting to deal with problems of transbasin diversion by blanket statutory prohibitions.³⁹

The magnitude of the transbasin diversion problem which faces Nebraska is illustrated by Metropolitan Utilities District v. Merritt Beach Company (hereinafter referred to as the M.U.D. case).⁴⁰ The case was an appeal from an authorization by the Director of Water Resources which permitted Metropolitan Utilities District of Omaha (M.U.D.) to supplement its daily water supply in a maximum amount of 60,000,000 gallons of ground water from a well field. The proposed wells were to be located on the north bank of the Platte River and on an adjacent island in Sarpy County, approximately five miles west of the confluence of the Platte and Missouri Rivers. The water was to be pumped, treated, and conveyed by pipeline to the service area of M.U.D. in and around the city of Omaha. No direct diversion of water from the river was contemplated, as the entire supply was to be pumped from the ground. The aquifer from which the water was to be pumped underlies some 1,200 acres of land. Expert testimony indicated that the source of the aquifer's recharge would be 4,000,000 gallons per day from underground waters and 56,000,000 gallons per day from surface waters of the Platte River. Other evidence established that the pumping would reduce the level of flow in the Platte River to some extent, but that it would not directly affect the level of underground water beneath the defendant's lands.

The defendants objected to the M.U.D. permit upon the grounds that: (1)

39. Id. at 1039.

40. 179 Neb. 783, 140 N.W.2d 626 (1966).

it would violate vested rights of riparian property owners by lowering the water table under their lands; and (2) the grant of the application amounted to an unlawful diversion of water from the Platte River watershed. As to the first objection the court stated that Nebraska had never passed upon a situation in which the right of the riparian owners to take percolating waters constituted an interference with the prior appropriation rights of persons on a nearby stream.⁴¹ However, after reviewing decisions from California⁴² and Utah,⁴³ the court concluded⁴⁴ that since the defendants failed to show they were damaged, it followed that they were not in a position to raise the objection.

In arguing the second objection, defendants relied upon the holding of the Osterman case⁴⁵ that water cannot be transported and used outside a watershed. Once again the court was forced to deviate from its holding in Osterman. The opinion began by citing Meng v. Coffee⁴⁶ which held that the common law is in force in Nebraska except as altered or modified by statute. It was then pointed out⁴⁷ that under the common law governing ground water, a riparian landowner could withdraw whatever quantity he desired for any purpose without regard to the effect on his neighbors. However, the court concluded by stating⁴⁸ that while riparian rights still exist, they have been limited by rules of reasonable use and public interest so where a riparian

41. Ibid.

42. Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 45 P. 2d 972 (1935).

43. Silver King Consol. Mining Co. v. Sutton, 85 Utah 297, 39 P. 2d 682 (1934).

44. 179 Neb. at 796, 140 N.W.2d at 634.

45. 131 Neb. 356, 268 N.W. 334 (1936).

46. 67 Neb. 500, 93 N.W. 713 (1903).

47. 179 Neb. at 797, 140 N.W.2d at 635.

48. Id. at 801, 140 N.W.2d at 637.

landowner's reasonable use is not impaired, the public interest demands that water be applied to a needed public purpose rather than be wasted.

Having laid the above foundation, the court analyzed again the rationale of the Osterman decision. It did not consider⁴⁹ it controlling because there the taking of water would have damaged the rights of others, while in the M.U.D. case no damage had been caused to either riparians or appropriators. In fact, had the water not been taken by M.U.D., it would have flowed unused out of the state. The court concluded by saying that where the taking of water beyond a watershed does not injure appropriators or riparians, then no reason exists for not permitting a transbasin diversion for a public and beneficial purpose. The court formulated the following rule: The question of allowing transbasin diversions is to be decided upon the ground of reasonable use and all the factors that enter into such a consideration including the reasonableness of a watershed diversion.⁵⁰

The court in the M.U.D. case assumed that it was dealing with ground water rather than a diversion from a stream. This made discussion of sections 46-206⁵¹ and 46-265⁵² unnecessary. The question arises concerning whether the case can be considered authority for only the transportation of ground water across a divide or watershed or whether it has equal applicability to transbasin diversions of stream water. It is of interest that the court in the M.U.D. case stated⁵³ that underground waters, whether they be percolating waters or underground streams, are a part of the water referred to in the

49. Ibid.

50. Ibid. (The material cited is not a direct quotation, but has been paraphrased by the author.)

51. Neb. Rev. Stat., section 46-206 (Reissue 1960).

52. Neb. Rev. Stat., section 46-265 (Reissue 1960).

53. 179 Neb. at 799, 140 N.W.2d at 636.

Constitution,⁵⁴ and that ground or stream waters form part of the same hydro-logic cycle. The opinion said:

It is true that such waters are not concentrated as in a river nor do they move with the velocity of a river, but they do percolate through underground formations and have the same source and termination as surface water flowing in a river. Underground waters are a part of the source of water supply to a growing population and an expanding economy the same as the surface waters flowing in a live stream on the surface of the ground.⁵⁵

Furthermore, evidence in the M.U.D. case indicated that pumping ground water near the river directly influenced the level of flow to some extent and that the aquifer was dependent upon the river for recharge. In fact, 56,000,000 gallons of the needed 60,000,000 gallons for recharge purposes would be obtained from the Platte River. Finally, if a watershed limitation is valid in the case of surface water, there seems to be no reason why it should not apply as well to ground water. For these reasons, it appears that the M.U.D. decision may be applicable to transbasin diversions of stream waters.

Several conclusions may be drawn from an analysis of the M.U.D. case. First, the court recognized that waste would occur if Platte River water was allowed to pass out of the state without being used. This factor was not a consideration in the Bejot⁵⁶ case, yet in Osterman the court was mindful of the fact that the proposed diversion would have allowed water to pass prematurely out of Nebraska into Kansas. Furthermore, the court in the M.U.D. case, as in Bejot, was not confronted with any riparian or appropriation rights which would be damaged were the intended diversion allowed. However, in Osterman valuable riparian rights would have been damaged.

54. Neb. Const., Art. XV, section 4.

55. 179 Neb. at 800, 140 N.W.2d at 636.

56. 170 Neb. 257, 102 N.W.2d 416 (1960).

A common thread seems to connect all of the above decisions, i.e., to achieve equitable distribution of the state's water resources and keep them within its boundaries for use by the people of the state. Yet the court in the M.U.D. case achieved this result by the use of a unique method. No longer did it speak of transbasin diversion in terms of legal or illegal or in terms of outside or inside a particular designated watershed. Rather, for the first, time, it used the term "reasonable use" and based its opinion on the equitable concept that where the taking of water beyond the watershed causes no substantial injury to appropriators or riparian landowners, no reason exists for not permitting the diversion. In combining the concepts of "reasonable use" with no injury to vested rights, the court in the M.U.D. case balanced the equities in determining the propriety of a particular water use.

The court in the M.U.D. case indicated that legislation is needed in this area.⁵⁷ Large scale expensive projects cannot be planned and implemented so long as uncertainty exists concerning their legality. Such an important use of Nebraska's water resources deserves more stability. It is noteworthy in this connection that after the Osterman decision, plans for other transbasin diversions in Nebraska were abandoned.⁵⁸ The legislature should create a statutory framework for transbasin diversions in Nebraska, for only then will projects be safe and worthwhile ventures. It appears that sections 46-206⁵⁹ and 46-265⁶⁰ are insufficient to legalize transbasin diversions. Furthermore,

57. 179 Neb. at 801, 140 N.W.2d at 637.

58. Hutchins & Steele, Basic Water Rights Doctrines and Their Implications for River Basin Development, 22 Law & Contemp. Prob. 276, 296 (1957).

59. Neb. Rev. Stat., section 46-206 (Reissue 1960).

60. Neb. Rev. Stat., section 46-265 (Reissue 1960).

these statutes might be questionable on other grounds. The wisdom of setting blanket statutory prohibitions on diverting from a stream of less than one hundred feet in width, or only up to 75% of any stream which is in excess of one hundred feet in width, is debatable. Such statutory limitations can hardly take into consideration all the situations which might occur when transbasin diversion of water is being contemplated. Factors such as the quantity and the quality of the irrigable land, deposits of natural resources, industrial development, projected population growth, proposed beneficial uses and perhaps other factors should have more to do with the regulation of transbasin diversion than does how large a stream is or how much of any stream is to be used for such diversions.

Legislation should be drafted to accomplish three objectives: (1) create a firm legal basis permitting transbasin diversions in Nebraska; (2) designate a central state agency to regulate these diversions; and (3) adopt specific standards for use in determining the feasibility of each project.

Transbasin diversions present problems which are similar to those now handled by state administrative agencies in other areas. The feasibility of granting permits to appropriate water and construct facilities for transbasin diversion can only be determined on a project by project basis, and the state agency should be guided by legislatively created standards. These should not be based on ambiguous terminology such as reasonable use, public interest, beneficial use, or good husbandry because such phrases create too broad a discretion in the agency.

The standards chosen should place primary emphasis upon achieving the purposes of a statewide water plan. In this connection Nebraska might consider the North Carolina⁶¹ statute which provides:

61. N. C. Gen. Stat., section 1628-7(c) (1964).

The board shall issue certificates only to projects which it finds to be consistent with the maximum beneficial use of water resources in the state and shall give paramount consideration to the statewide effect of the proposed project rather than its purely local original effect. In making this determination, the board shall specifically consider:

- (1) necessity of the proposed project;
- (2) whether the proposed project will promote and increase the storage and conservation of water;
- (3) the extent of the probable detriment to be caused by the proposed project to the present beneficial use of water in the affected watershed and resulting damages to present beneficial users;
- (4) the extent of the probable detriment to be caused by the proposed project to the potential beneficial use of water on the affected watershed;
- (5) the feasibility of alternative sources of supply to the petitioning authority and the comparative costs thereof;
- (6) the extent of the probable detriment to be caused by the use of alternative sources of supply to present and potential beneficial use of water on the watershed or watersheds affected by such alternative sources of supply.

Even though the statute refers more to detriments rather than benefits, it is flexible and considers most of the factors which are necessary to determine the feasibility of transbasin diversion projects. Through its application, a state agency could use its discretionary power fully and yet achieve consistency in granting or denying permits.

The feasibility of a transbasin diversion project is a major factor. Feasibility determinations have often been based upon a balancing of benefits to be derived from the project against the costs. The higher the ratio of benefits over costs, the more economically desirable the project and consequently, the greater its feasibility. A dynamic, flexible and far reaching approach should be utilized when assigning economic values to a project's benefit and cost factors if Nebraska's use of its water resources is to keep pace with the needs of future generations. Consequently, a project's benefits should not be analyzed on a short term basis only.

While no doubt exists that the theory of benefit-cost analysis has been subject to abuse, it remains in use and has value to the decision maker.⁶²

The difficulties with the method are not in its theory, but in its application.

In addition to being economically feasible, a transbasin diversion project must be desirable in other respects. First, all available water resources should be put to optimum use, and in this connection a prime consideration is whether the receiving basin has another untapped source of water at its disposal. For instance, Texas⁶³ requires that reasonable development of local surface waters be made before any authorization of a water diversion project is allowed. Therefore, an applicant seeking water from an outside basin must first use reasonable means to obtain the needed supply from a local source. What is reasonable depends somewhat upon: (1) whether local sources are adequate to fully satisfy the project's needs; and (2) whether local sources are being considered for another project which has greater need for the water.

Second, it is important to consider the effect of a proposed project on the basin of origin. Local businessmen and some farmers may suffer financial losses if the extent of irrigated acreage is reduced by a transbasin diversion project. However, since the basis for allowing projects is benefit to the state generally, comparison should be made of benefits being presently enjoyed with benefits which will be enjoyed in the receiving basin. It should be noted that a Texas statute⁶⁴ requires water to be left in the original basin if it can be foreseeably used there within fifty years. This has been considered as "locking up"⁶⁵ some projects, and apparently was designed to create preference for intra-basin needs regardless of the needs of other regions.

62. President's Water Resource Council, S. Doc. 97, 87th Cong. 2d Session (1962).

63. City of San Antonio v. Texas Water Commission, 392 S.W.2d 200 (Tex. Civ. App. 1965).

64. Tex. Laws (1965), Ch. 297, section 3(b).

65. Johnson & Knippa, Transbasin Diversion of Water, 43 Tex. L. Rev. 1035 (1965).

Third, consideration should be given to the physical effects of transbasin diversion on both the basin of origin and the receiving basin. The diversion of significant flows from one drainage system to another could cause severe problems. The effect on the basin of origin would be similar to that caused by construction of large reservoirs including increased sedimentation and loss of channel capacity to discharge flood waters without provision of compensating storage for reduction of flood discharge rates. Other unwanted results in the basin of origin might include occurrence of pollution conditions due to removal of dilution waters and loss of fisheries and wildlife habitat. Similarly, detrimental results may occur in the basin receiving additional waters due to unbalancing of stream regime leading to severe erosion. The use of imported water may upset the naturally developed hydrologic balance of the basin causing rising ground water levels. In addition, full utilization of imported waters will depend upon development of a system using storage to regulate and reregulate the diverted waters and make them available at a time and in locations proper for their use. In general, this will depend upon the availability of suitably located reservoir sites.

Comparison of the efficiency of various water uses also entails consideration of Nebraska's preference statute.⁶⁶ The economic implications arising from preference statutes must be kept in mind when transbasin diversion projects are proposed:

[P]references may insure the economic growth of certain types of water use deemed desirable when the statutes were enacted, but admittedly, most of today's preferences embodied the economic thinking of yesterday. To the extent that a legislature, perhaps under the guidance of a planning agency, can foresee that a certain purpose is now and will be

66. Neb. Rev. Stat., section 46-204 (Reissue 1960).

tomorrow more desirable than another use, such preferences are valid, but they should be periodically reviewed in order to keep abreast of modern thinking.⁶⁷

Some qualification of this statement is perhaps necessary. Domestic uses should be accorded first priority. However, the preference ratings assigned to irrigation, power, manufacturing, and municipal uses may be open to question. Such uses, with the possible exception of municipal use, should be rated according to economic considerations. Preference statutes would then complement other feasibility considerations. The key determinant should be marginal value productivity, and this will vary with types of use, scale of use, and other factors. In some locations power usage might have a higher marginal value than industrial usage; in others, the reverse might be true. Or power might have a higher marginal value than one type of industry, but not another. Irrigation may be above, below, or between power and industrial usage in marginal value.⁶⁸ If the most effective use of the state's water resources is to be achieved, the type of use to which the water is put must be considered. To suggest this, however, is not to imply that an agricultural state, such as Nebraska, should attempt to become a predominantly industrial state in order to achieve the most effective use of a particular resource. Other factors must be considered. However, some preliminary conclusions have been drawn:⁶⁹

- (1) the state as a whole will always benefit from the more efficient use of a natural resource;

67. Trelease, A Model State Water Code for River Basin Development, 22 Law and Contemp. Prob. 301 (1957).

68. Yeutter, A Legal-Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11, 49, 50 (1965).

69. See note 68, supra.

- (2) displaced permit holders will not suffer because preference adjustments require compensation;
- (3) Nebraska cannot legitimately be classified as a potential dustbowl--industrial, power and recreational uses which have higher marginal productivity than agricultural uses are relatively insignificant at the moment.

Fourth, the feasibility of a transbasin diversion project depends to some degree upon the project's ability to further economic growth. In this regard it is important to note that while proper water usage may attract new industry and create higher employment, these benefits are not always directly related to the use of water for industrial purposes. Farming, hydro-electric power, navigation and recreation water usage may increase the wealth and prosperity of a state. All of these, in some measure, are facets of basin development. All, in some respect, aid industrialization of an area, and consequently the economic expansion of that area.

Finally, a proposed project's feasibility depends to some extent on its effect upon recreation and wildlife. In Nebraska, as elsewhere, the amount to be assigned recreational benefits is difficult to evaluate. Little doubt exists that they have value, however. Factors such as location of the various recreation sites around the state, their use by the public generally, and the costs of maintaining such facilities must be considered.

Perhaps not any one of the above considerations alone is of sufficient importance to demand exclusive attention. Yet, the feasibility of any proposed transbasin diversion project can be more equitably and consistently determined if the above factors are used as guidelines by decision makers. Of prime importance is the fact that it is the interests of the state as a whole which are to be served.

S U M M A R Y

Although transbasin diversions in Nebraska have been allowed and it appears they will be permitted in the future, it is not clear under what circumstances and when this may be done. The two Nebraska statutes of special interest for this problem⁷⁰ do not prohibit transbasin diversions but they do present cloudy limitations. Statutes in other states encourage transbasin diversions by providing that water need be returned only when it is reasonably practical to do so by gravity flow.⁷¹

In the Osterman decision the Nebraska Supreme Court held that a divide or watershed could not be crossed by an irrigation ditch or canal where the unused waters would not be returned to the source from which they were taken. The legal effect of Osterman seemed to bar transbasin diversions in all cases, but, in 1960, the Nebraska Supreme Court in the Bejot case retreated from its position in Osterman. Although superficial analysis indicates the difference between the Osterman and Bejot decisions is merely one of defining watershed limits, such is not the case. The court balanced equities in Bejot, and in so doing upheld what might otherwise have been construed to be a prohibited transbasin diversion. In the M.U.D. case the Nebraska Supreme Court again deviated from its position in Osterman and formulated the following rule: The question of allowing transbasin diversions is to be decided upon the ground of reasonable use and all the factors that enter into such a consideration including the reasonableness of a watershed diversion. It remains uncertain whether this rule will be applied to surface water diversions because the M.U.D. decision involved diversion of ground water. However, the Supreme Court has declared that "Underground waters, whether they be percolating waters or underground streams, are a part of the water

70. Neb. Rev. Stat., § 46-206 (Reissue 1960) and Neb. Rev. Stat., § 46-265 (Reissue 1960).

71. See: Texas statute infra. p. 3.

referred to in the Constitution, and that ground or stream waters form part of the same hydrologic cycle." Furthermore, the court acknowledged that while ground waters "are not concentrated as in a river nor do they move with the velocity of a river, . . . they do percolate through underground formations and have the same source and termination as surface water flowing in a river. Underground waters are a part of the source of water supply to a growing population and an expanding economy the same as the surface waters flowing in a live stream on the surface of the ground." ⁷²

Large scale expensive transwatershed diversion projects cannot be planned and implemented while uncertainty exists concerning their legality. Such an important use of Nebraska's water resources deserves more stability. The Supreme Court has, in effect, withdrawn from the area and indicated in the M.U.D. opinion that it is the Legislature which must provide solutions to the problem. ⁷³

Legislation should be drafted to accomplish three objectives:

- (1) create a firm legal basis permitting transbasin diversions in Nebraska;
- (2) designate a central state agency to regulate these diversions;
- (3) adopt specific standards for use in determining the feasibility of each project.

72. 179 Neb. at 799, 140 N.W.2d at 636.

73. 179 Neb. at 801, 140 N.W.2d at 637.