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Commentary

By Robert Emmet Clark*
and Arthur Arguedas, Jr.**

Developments in Groundwater Law

I. INTRODUCTION

Several legislatures and courts have made partial responses to the legal and technological deficiencies found in state groundwater management by the National Water Commission. These responses focus on the major groundwater problem areas identified in the text of the Commission's 1973 final report¹ or in the report's specific recommendations for changes in existing state laws. The problem areas identified emphasize the need for comprehensive state water legislation which integrates the management of surface water and groundwater,² for increased regulation of well drilling and groundwater "mining,"³ and for elimination of legal obstacles to the transfer of groundwater rights from one use or user or place of use to another.⁴

Many of the same problems reviewed in the Commission's final report and examined in the Commission's background studies⁵ received special attention in the 1975 report of the United States Water Resources Council:

The most significant changes in existing water law must come from the States . . . because the great body of water law is State property law.

. . . [S]pecific problems are to a great extent a result of the piece-meal approach to water law historically taken by State and Federal legislatures. Needed is comprehensive legislation which

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1. NATIONAL WATER COMMISSION, WATER POLICIES FOR THE FUTURE (1973). Twenty recommendations relate specifically to groundwater.
2. *Id.* at 227-70 (recommendations 7-1 through 7-36, especially 7-1 through 7-6 and 7-10).
3. *Id.* at 242-45 (recommendations 7-7 to 7-9, 7-11, 7-16).
4. *Id.* at 261-70 (recommendations 7-24 through 7-36).
5. See, e.g., C. CORKER, GROUNDWATER LAW, MANAGEMENT AND ADMINISTRATION (National Water Commission 1971).

considers all aspects of water resources management and allocation including such matters as ground water and surface water integration, weather modification, water management and quality control.

The law has not adequately responded to the increased technical knowledge of the relationship of surface to ground water, and the relationship of ground water in one area to ground water in other areas. The right of a landowner to pump ground water frequently conflicts with the rights of other landowners to pump and with the rights of surface appropriators downstream.⁶

Before the National Water Commission report became available, Oklahoma enacted a groundwater law that became effective July 1, 1973.⁷ Nebraska groundwater legislation was amended two years later.⁸ These statutes are among the most important recent attempts to formulate comprehensive legislation and to regulate well drilling⁹ and groundwater mining. It is still too early to judge the effectiveness of these laws, or the rules and regulations designed to implement them, but their strengths and weaknesses will be observed in other jurisdictions.¹⁰

Other states have used an ad hoc approach in enacting legislation to deal with groundwater problems. During the last year an amendment¹¹ to the Idaho water code,¹² for example, requires approval of the legislature before the state's water plan becomes effective. Wyoming prohibits export without legislative approval.¹³ In the East, a Massachusetts statute¹⁴ now authorizes the licensing and regulation of well drillers. Montana has modified its notice of adjudication procedures in the interest of reducing cost and speeding the administrative process.¹⁵ Study commissions have been established by executive order in California,¹⁶ by statute in

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6. UNITED STATES WATER RESOURCES COUNCIL, SUMMARY 54,205 (U.S. Gov't Printing Office 1976).
 7. OKLA. STAT. ANN. tit. 82, §§ 1020.1-.22 (West 1972).
 8. NEB. REV. STAT. §§ 46-602 to 603, -629 to 630, -656 to 674 (Cum. Supp. 1976).
 9. See also N.D. CENT. CODE §§ 43-35-01 to 22 (Supp. 1977).
 10. This was pointed out to a groundwater conference in December 1976. Clark, *The Role of State Legislation in Groundwater Management*, 10 CREIGHTON L. REV. 469 (1977).
 11. IDAHO CODE § 42-1736 (Supp. 1977).
 12. IDAHO CODE §§ 42-101 to 4115 (Supp. 1977).
 13. WYO. STAT. § 41-10.5 (Cum. Supp. 1975).
 14. Ch. 201, 1977 Mass. Adv. Legis. Serv. 219 (Michie/Law. Co-op).
 15. MONT. REV. CODES ANN. §§ 89-875 to 877 (Cum. Supp. 1977).
 16. The Commission Report is due by December 31, 1978. The reporting date was extended from June 30 to December 31 by Executive Order B-33-77 (Aug. 26, 1977).

Arizona,¹⁷ and by resolution in Virginia¹⁸ to examine existing state water laws and to recommend new laws for enactment. Formation of these study commissions may also be symptomatic of concern in other states which have discovered that groundwater is a valuable, and in some areas such as west Texas, a unique resource which must not be mismanaged or wasted.¹⁹ If the study commissions in these three states recommend or produce workable legislation, groundwater management efforts in other states will be greatly encouraged.

Recent decisions of several state and federal courts also may have significant influence on both existing and future groundwater legislation. For example, the United States Supreme Court has recognized the inter-relationship of groundwater and surface water in *Cappaert v. United States*.²⁰ The decision, which has ramifications affecting the Western states, held that "the United States can protect its water from subsequent diversion, whether the diversion is of surface or groundwater."²¹ Another decision with possible multi-state influence is the California court of appeals wastewater decision in *Environmental Defense Fund v. East Bay Municipal Utility District*²² pending before the California Supreme Court. Other decisions in Arizona,²³ Idaho,²⁴ Texas,²⁵ and California²⁶ will have an impact on state groundwater management, on groundwater mining, and on transfers of rights to groundwater.

This commentary does not attempt to chronicle all recent legal developments relating to the management, use and conservation of groundwater. It is little more than an outline of the more important recent legislative and judicial action which may help shape future groundwater legislation as long-standing problems are confronted. A recent report to Congress by the General Accounting

17. Ch. 29, § 7, 1977 Ariz. Sess. Laws.

18. Va. H.J. Res. No. 236 (1977).

19. See, e.g., *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation Dist. No. 1*, 538 S.W.2d 659 (Tex. Civ. App. 1976).

20. 426 U.S. 128 (1976).

21. *Id.* at 143.

22. 125 Cal. Rptr. 601 (Cal. App. 1975). An appeal was granted by the California Supreme Court on February 23, 1976.

23. *Farmers Inv. Co. v. Bettwy*, 113 Ariz. 520, 558 P.2d 14 (1976).

24. *Briggs v. Golden Valley Land & Cattle Co.*, 97 Idaho 427, 546 P.2d 382 (1976).

25. *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation Dist. No. 1*, 538 S.W.2d 659 (Tex. Civ. App. 1976).

26. See, e.g., *City of Los Angeles v. City of San Fernando*, 14 Cal. 3d 199, 537 P.2d 250, 123 Cal. Rptr. 1 (1975); *County of Inyo v. City of Los Angeles*, 61 Cal. App. 3d 91, 132 Cal. Rptr. 167 (1976) (appeal rejected by the California Supreme Court).

Office and the on going water resources policy studies specify many of the problems and call attention to various methods for solving them.²⁷

II. PRINCIPAL DEVELOPMENTS

The 1972 Oklahoma Ground Water Law²⁸ has strong appeal. It calls for an ambitious program of hydrologic surveys at least every ten years²⁹ to determine the extent of each landowner's interest in the groundwater beneath his land. These surveys are to determine the total overlying acreage of each basin and the maximum annual yield of fresh water from each basin in light of the amount of water in storage, the rate of natural recharge and discharge, and other factors. The maximum annual yield is to be set based on a minimum basin life of twenty years.³⁰

The Oklahoma law requires permits to pump groundwater for other than domestic use.³¹ After public hearings on the determina-

27. General Accounting Office, *Ground Water: An Overview* (Report to Congress by the Comptroller General, June 21, 1977); Water Resource Policy Study, Task Force Reports (Dec. 6, 1977).

On April 18, 1977, President Carter reported the results of a review he had made of 32 Federal water resource projects and noted that some would bring water to areas with no State ground water management programs. In the case of one project (the Central Arizona Project), the President recommended that further Federal funding be contingent upon further study of ground water supplies and the institution of ground water regulation and management by Arizona.

The President indicated that he was recommending the development of major policy reforms in the area of water conservation, including wise ground water management. When developing major policy reform for better ground water management, questions asked in this report should be considered and studied.

General Accounting Office, *supra*, at iv.

An important area of law that should not be forgotten is the Safe Drinking Water Act, 42 U.S.C. §§ 300f-300j (Supp. IV 1974), which provides protection against injection of pollutant materials into groundwater aquifers. Although both *United States v. GAF Corp.*, 389 F. Supp. (S.D. Tex. 1975), and *Exxon Corp. v. Train*, 554 F.2d 1310 (5th Cir. 1977), held that there was no way to prevent this type of pollution, they were decided under the Federal Water Pollution Control Amendments of 1972, 33 U.S.C. §§ 1251-1376 (Supp. II 1972). See Environmental Protection Agency, *Interim Primary Drinking Water Regulations*, 43 Fed. Reg. 5755 (1978) (proposed; control of organic chemical contaminants in drinking water).

28. OKLA. STAT. ANN. tit. 82, §§ 1020.1-22 (West Supp. 1977) (effective July 1, 1973).

29. *Id.* § 1020.4.

30. *Id.* § 1020.5.

31. *Id.* §§ 1020.3, .7.

tion of the maximum annual yield of each basin³² and on applications to use groundwater,³³ permits shall be granted to allocate to the applicant "that percentage of the total annual yield of the basin or subbasin . . . which is equal to the percentage of the land overlying the fresh groundwater basin or subbasin which he owns or leases."³⁴ A 1977 amendment³⁵ to the Oklahoma law allows administrators to issue a "provisional temporary permit" to use groundwater for sixty days without following the normal procedures for temporary, special or regular permits.

The 1975 Nebraska legislation³⁶ regulates well drilling³⁷ and well spacing,³⁸ authorizes the imposition of a tax to support a management program,³⁹ and authorizes the designation of control areas⁴⁰ in which withdrawals of groundwater may be regulated through cutbacks of production, rotation of pumping, refusal of permits for new wells or other methods.⁴¹ Legislation effective July 1, 1978,⁴² establishes a Nebraska Water Conservation Fund which may grant individual landowners up to seventy-five percent of the cost of eligible water conservation projects, including construction of small dams, terraces, and other structures which allow the temporary retention of water and sediment.

Nebraska and Oklahoma, lying north and south of Kansas and in part over the same water-yielding Ogallala formation, may encounter obstacles in the application of the new laws, but the broad map for the future is implicit in this legislation. It leaves space for change and improvement compatible with management and conservation practices whether or not a "maximum utilization"⁴³ goal is pursued through a new formula, or the one adopted for eastern Colorado in 1965.⁴⁴ The judicial handling of the Kansas legislation

32. *Id.* § 1020.6.

33. *Id.* § 1020.8.

34. *Id.* § 1020.9.

35. *Id.* § 1020.10.

36. NEB. REV. STAT. §§ 46-602 to 603, -629 to 630, -656 to 674 (Cum. Supp. 1976).

37. *Id.* § 46-602.

38. *Id.* § 46-666 (1) (c).

39. *Id.* § 46-673.

40. *Id.* § 46-656.

41. *Id.* § 46-666.

42. NEB. REV. STAT. § 2-1579 (Supp. 1977).

43. COLO. REV. STAT. §§ 37-90-101 to 141 (1973 & Supp. 1976). See also Comment, *Unappropriated Water and Maximum Utilization*, 51 DEN. L.J. 127 (1974); *The Groundwater-Surface Water Conflict and Recent Colorado Water Legislation*, 43 U. COLO. L. REV. 1 (1971).

44. See *Kuiper v. Lundvall*, 187 Colo. 40, 529 P.2d 1328 (1974), cert. denied, 421 U.S. 996 (1975); *Hall v. Kuiper*, 181 Colo. 130, 510 P.2d

of 1945 and 1947, as applied to surface and groundwater,⁴⁵ was a bold step during an earlier period and there is no measurable way to determine the radius of influence in other states although *Shepard's Reporter Citations* provides some evidence.⁴⁶

Just as recent legislation has recognized the need for improved management of groundwater in water-short areas, so have court decisions in California,⁴⁷ Texas,⁴⁸ and Idaho⁴⁹ recognized that water use must be managed so as to assure equitable distribution to both existing and future water users. In *City of Los Angeles v. City of San Fernando*,⁵⁰ a unanimous California Supreme Court modified the state's complicated and often wasteful doctrine of "mutual prescription" among groundwater users in an overdrawn basin. The court held that neither the historic "pueblo right" of Los Angeles to groundwater and surface water from the Los Angeles River, nor the city's right to San Fernando basin groundwater, which was derived from water originally imported by the city into the basin, could be lost to other users by prescription.⁵¹ Yet the court held that a city or other public agency may gain water rights by prescription against a private person if the private person does not exercise his water rights for five years,⁵² the time period in which a prescriptive use ripened into a water right under the 1949 decision of *City of Pasadena v. City of Alhambra*.⁵³

The 1975 California case stated that the doctrine of prescriptive rights did not necessarily result in an equitable apportionment of water according to present and future needs,⁵⁴ and that the doctrine encouraged excessive pumping once the overdraft of a basin first

329 (1973); *Fundingsland v. Colorado Ground Water Comm'n*, 171 Colo. 487, 468 P.2d 835 (1970).

45. See *Baumann v. Smrha*, 145 F. Supp. 617 (D. Kan.), *aff'd* 352 U.S. 863 (1956); *Williams v. City of Wichita*, 190 Kan. 317, 374 P.2d 578 (1962); *State ex rel. Emery v. Knapp*, 167 Kan. 546, 207 P.2d 440 (1949).

46. The three cases cited in note 45 have been cited more than a dozen times, and by three states in addition to Kansas.

47. *City of Los Angeles v. City of San Fernando*, 14 Cal. 3d 199, 537 P.2d 250, 123 Cal. Rptr. 1 (1975).

48. *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation Dist. No. 1*, 538 S.W.2d 659 (Tex. Civ. App. 1976).

49. *Briggs v. Golden Valley Land & Cattle Co.*, 97 Idaho 427, 546 P.2d 382 (1976).

50. 14 Cal. 3d 199, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

51. *Id.* at 286-87, 537 P.2d at 1313-14, 123 Cal. Rptr. at 64-65.

52. *Id.* at 281-82, 537 P.2d at 1310, 123 Cal. Rptr. at 61.

53. 33 Cal. 2d 908, 207 P.2d 17 (1949).

54. *City of Los Angeles v. City of San Fernando*, 14 Cal. 3d 199, 265, 537 P.2d 1250, 1298, 123 Cal. Rptr. 1, 49 (1975).

began.⁵⁵ The court held that Los Angeles' pueblo right and its right to re-capture imported water in groundwater storage in the San Fernando basin extended to and was superior to the water rights of private persons whose claims to water were dependent upon ownership of overlying land or upon the physical appropriation of groundwater.⁵⁶

A 1976 decision⁵⁷ of the court of civil appeals of Texas gave significant support to the management and conservation efforts of the state's underground water conservation districts. These districts, authorized under a 1949 statute,⁵⁸ have very limited powers;⁵⁹ their main one being the power of persuasion. Yet even within the restrictions of Texas groundwater doctrine,⁶⁰ the west Texas district has been able to provide constructive leadership in the management of a groundwater source which is rapidly being depleted.⁶¹ The 1976 decision, despite some ambiguous implications, came down on the side of groundwater management. The court held that a district, as a governmental agency, cannot be barred by the statute of limitations or the equitable doctrine of laches from enforcing an order to close a well which was drilled in violation of the district's spacing regulations.⁶²

An Idaho decision,⁶³ although remanded for determination of whether the appeal was properly perfected,⁶⁴ suggests that the

55. *Id.* at 267, 537 P.2d at 1299, 123 Cal. Rptr. at 50.

56. *Id.* at 287, 537 P.2d at 1314, 123 Cal. Rptr. at 65.

57. *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation Dist. No. 1*, 538 S.W.2d 659 (Tex. Civ. App. 1976).

58. *TEX. WATER CODE ANN.* tit. 4, § 52.021 (Vernon 1972). See Snyder, *Ground Water Management: A Proposal for Texas*, 51 *TEX. L. REV.* 289 (1973).

59. Such districts have the power to make and enforce rules. *TEX. WATER CODE ANN.* tit. 4, § 52.101 (Vernon 1972). They are prohibited from restricting the production of any well that produces less than 100,000 gallons of water a day. *Id.* § 52.118.

60. The Texas Supreme Court adopted the "English rule," giving each landowner the right of unlimited withdrawals of the water beneath his land, in *Houston & T.C. Ry. v. East*, 98 Tex. 146, 81 S.W. 279 (1904). See also *TEX. WATER CODE ANN.* tit. 4, § 52.002 (Vernon 1972); *Pecos County Water Control & Improvement Dist. No. 1 v. Williams*, 271 S.W.2d 503 (Tex. Civ. App. 1954) (subsequently confirmed by statute); Harnsberger, *Nebraska Groundwater Problems*, 42 *NEB. L. REV.* 721, 757-59 (1963); Snyder, *supra* note 58, at 290-99.

61. The Cross Section, March, 1977, at 4 (publication of High Plains Underground Water Conservation Dist. No. 1, Lubbock, Texas).

62. *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation Dist. No. 1*, 538 S.W.2d 659, 663 (Tex. Civ. App. 1976).

63. *Briggs v. Golden Valley Land & Cattle Co.*, 97 Idaho 427, 546 P.2d 382 (1976).

64. *Id.* at 434, 546 P.2d at 389.

Director of the Department of Water Resources may have broad powers in implementing *Baker v. Ore-Ida Foods, Inc.*⁶⁵ This 1973 decision held that the Idaho Ground Water Act forbids the mining of groundwater and limits groundwater users to a total annual withdrawal from an aquifer equal to the average annual recharge of the aquifer.

The 1977 Arizona Legislature enacted a legislative compromise⁶⁶ among the mining, agricultural, and municipal interests that were affected by a 1976 decision⁶⁷ of the Arizona Supreme Court which severely restricted transfers of groundwater from one parcel of land overlying a mined basin to other lands overlying the same basin. In recognizing the plaintiff's right to an injunction to halt the piping of groundwater away from the land from which it was pumped, the court said:

Water may not be pumped from one parcel and transported to another just because both overlie the common source of supply if plaintiff's lands or wells upon his lands thereby suffer injury or damage. . . .

. . . If it is to the State's interest to prefer mining over farming, then the Legislature is the appropriate body to designate when and under what circumstances such economic interest will prevail.⁶⁸

The 1977 legislation, enacted as an emergency measure, largely reverses the supreme court decision and generally maintains the status quo on groundwater transfers until 1981. It begins with a statement of policy: "The Legislature of the State of Arizona finds that strict application of existing law preventing the transfer of groundwater jeopardizes the economy and well being of the people of this state and prevents certain necessary distribution of Arizona's groundwater resources."⁶⁹

The new law allows existing transfers of groundwater, including those at issue in the 1976 court decision,⁷⁰ to continue. It also allows new transfers of groundwater to be initiated from areas that are not "critical groundwater areas."⁷¹ The law prohibits the designation of new critical areas until September, 1981.⁷² This legisla-

65. 95 Idaho 575, 513 P.2d 627 (1973).

66. Ch. 29, § 1, 1977 Ariz. Sess. Laws.

67. *Farmers Inv. Co. v. Bettwy*, 113 Ariz. 520, 558 P.2d 14 (1976).

68. *Id.* at 527, 558 P.2d at 21.

69. Ch. 29, § 1, 1977 Ariz. Sess. Laws.

70. *Farmers Inv. Co. v. Bettwy*, 113 Ariz. 520, 558 P.2d 14 (1976).

71. A "critical groundwater area" is defined as "any groundwater basin . . . not having sufficient groundwater to provide a reasonably safe supply for irrigation of the cultivated lands in the basin at the then current rates of withdrawal." ARIZ. REV. STAT. ANN. § 45-301(2) (West Supp. 1977-1978).

72. Ch. 29, § 8, 1977 Ariz. Sess. Laws.

tion is intended to remain in effect "only until a comprehensive plan providing for groundwater use, allocation, and distribution is implemented in this state."⁷³ It establishes a twenty-five member groundwater management study commission,⁷⁴ which is to submit to the legislature by December 31, 1979, a comprehensive report containing "a draft of recommended constitutional and statutory amendments" to Arizona's water laws.⁷⁵ The legislation further provides: "If the Legislature shall fail to enact a groundwater management code by the first Monday in September, 1981, the code recommended by the commission shall become the effective law on that date without any further authorizing legislation."⁷⁶

Although this section encourages lively speculation it also reads as a clear legislative statement in favor of groundwater management legislation.

III. CONCLUSION

The selected court decisions⁷⁷ and the recent legislation described reveal a growing awareness of the need for improved management of the West's limited groundwater resources in order to protect the existing rights of all water users and to develop methods for dealing with future allocations of water. These examples encourage increased attention for the planning function in the relationship between water and land use, and the need for conscious and specified choices in meeting changing water demands. For example, a 1977 amendment to North Dakota's permit system established the following order of preference when the state engineer is faced with competing applications for water from a single resource which cannot satisfy all applicants: (1) domestic use, (2) municipal use, (3) livestock use, (4) irrigation use, (5) industrial use, and (6) fish, wildlife, and other outdoor recreational uses.⁷⁸

73. *Id.* § 1.

74. *Id.* § 7.

75. *Id.*

76. *Id.*

77. See *Farmers Inv. Co. v. Bettwy*, 113 Ariz. 520, 558 P.2d 14 (1976); *City of Los Angeles v. City of San Fernando*, 14 Cal. 3d 199, 537 P.2d 250, 123 Cal. Rptr. 1 (1975); *County of Inyo v. City of Los Angeles*, 61 Cal. App. 3d 91, 132 Cal. Rptr. 167 (1976); *Environmental Defense Fund v. East Bay Mun. Utility Dist.*, 125 Cal. Rptr. 601 (Cal. App. 1975); *Briggs v. Golden Valley Land & Cattle Co.*, 97 Idaho 427, 546 P.2d 382 (1976); *Lewis Cox & Son, Inc. v. High Plains Underground Water Conservation Dist. No. 1*, 538 S.W.2d 659 (Tex. Civ. App. 1976).

78. N.D. CENT. CODE § 61-04-06.1 (Supp. 1977). Cf., e.g., ARIZ. REV. STAT. ANN. § 45-147 (West Supp. 1977-1978) (similar priorities divided into four categories).

The North Dakota amendment also requires official approval if a permit holder seeks to change the purpose of his water use without losing the priority date of his initial appropriation. Under the North Dakota statute a change in the purpose of use may be authorized only from an existing use to a superior use, as determined by the preferences established by the legislature in ranking permit applicants.⁷⁹

Legislatures and courts will face an increasing number of complex economic and environmental issues as they are called upon to recognize the inseparability of water *quality* problems from water *quantity* problems and as they attempt to resolve conflicts presented when new or increased water demands are made upon water supplies that already are fully claimed or used. For example, the California Supreme Court recently rejected the appeal of Los Angeles from a court of appeals decision⁸⁰ which required the city to file an environmental impact report before it increased its pumping of groundwater from the Owens Valley.

A California court of appeals decision, *Environmental Defense Fund v. East Bay Municipal Utility District*,⁸¹ which the California Supreme Court has agreed to review, turns on questions of California's constitutional⁸² and statutory⁸³ prohibition against the waste of water and a possible affirmative duty to reclaim water. Similar prohibitions are found in the statutory law or court decisions of nearly all other states,⁸⁴ but the meaning of waste has been poorly defined and has generally been neglected in developing enforcement procedures.⁸⁵

In the pending California case the plaintiffs sought to void a contract between East Bay Municipal Utility District and the United States Bureau of Reclamation for the purchase of water which was to be diverted from the Upper American River. They claimed that the diversion would substantially diminish the flow of the river, severely and adversely affect wildlife and recreational opportunities, and increase the pollution of San Francisco Bay.

79. N.D. CENT. CODE § 61-04-15.1 (Supp. 1977).

80. County of Inyo v. City of Los Angeles, 61 Cal. App. 3d 91, 132 Cal. Rptr. 167 (1976).

81. 125 Cal. Rptr. 601 (Cal. App. 1975). An appeal was granted by the California Supreme Court on February 23, 1976.

82. CAL. CONST. art. XIV, § 3.

83. CAL. WATER CODE § 100 (West 1971).

84. See, e.g., ARIZ. REV. STAT. ANN. § 45-319 (West 1956); COLO. REV. STAT. § 37-84-107 (1974); OKLA. STAT. ANN. tit. 82, § 1020.15 (West 1972).

85. State *ex rel.* Erickson v. McLean, 62 N.M. 264, 308 P.2d 983 (1957), is one of the few examples of court enforced prohibitions against waste.

Plaintiffs argued that the East Bay Municipal Utility District did not consider adequately the availability of alternative sources of water, including the potential reclamation of the district's wastewater, to meet the district's future water needs. The court of appeals held that preservation of the environment is one of the interests protected by the prohibitions against waste or unreasonable use of water that are imposed upon all water users.⁸⁶ It remanded the case on the factual question of whether the contract resulted in a waste of water by calling for the purchase of more water than would be necessary if the East Bay Municipal Utility District were to recycle waste water.⁸⁷ The pending appeal concerns the question of whether the 1928 constitutional amendment imposes a duty to reclaim waste water where economically feasible.⁸⁸ The specific language of the California Constitution refines that question,⁸⁹ but reclamation and reuse are essential requirements in any water management program. For example, in the Roswell basin of New Mexico, artesian sources, seasonal flows of the Pecos River and its tributaries, and the recharge to the upper strata Valley Fill, which is return flow from first uses, are administered as one unit.⁹⁰ In

86. *Environmental Defense Fund v. East Bay Mun. Utility Dist.*, 125 Cal. Rptr. 601, 611-13 (Cal. App. 1975).

87. *Id.* at 615-16.

88. Lee, *Legal Aspects of Water Conservation in California* 19 (Staff Paper No. 3, Cal. Governor's Comm'n, August, 1977).

89. CAL. CONST. art. X, § 2 states:

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which [his] land is riparian under reasonable methods of diversion and use, or of depriving any appropriator of water to which [he] is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.

90. See, e.g., *Langenegger v. Carlsbad Irr. Dist.*, 82 N.M. 416, 483 P.2d 297

the Salt River Project of Arizona, groundwater recharge is recovered from wells which supply areas of the project.⁹¹

These examples call attention to the conjunctive management potential for surface and groundwaters and to actual practices that have promoted efficiency and produced substantial benefits to many people. These constructive ad hoc judicial efforts in several states, and within areas of the same state,⁹² as well as state legislation, should be examined and improved wherever possible. In many states this experience could be incorporated into comprehensive water management legislation that will meet the essential requirements outlined in the National Water Commission report and also anticipate interstate and international problems not yet before the courts.⁹³

(1971); Kelley v. Carlsbad Irr. Dist., 76 N.M. 446, 415 P.2d 849 (1966); Durand v. Reynolds, 75 N.M. 497, 406 P.2d 817 (1965); Templeton v. Pecos Valley Artesian Conservancy Dist., 65 N.M. 59, 332 P.2d 465 (1958).

91. See Berning, *Circumvention of Acreage Limitations through Use of Project Developed Groundwater* (1977) (unpublished paper on file at University of Arizona College of Law).
92. See, e.g., Mathers v. Texaco, Inc., 77 N.M. 239, 421 P.2d 771 (1966) (involving the Lea County Underground Water Basin); City of Albuquerque v. Reynolds, 71 N.M. 428, 379 P.2d 73 (1963) (involving the Rio Grande Underground Water Basin).
93. See Burman & Cornish, *Needed: A Groundwater Treaty Between the United States and Mexico*, 15 NAT. RESOURCES J. 385 (1975).

A local effort has been made in Arizona. See Clark, *Arizona Water Resources Management Act of 1977* (A proposed water resources statute, Nov. 15, 1977).