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Kevin M. O'Brien Downey Brand LLP

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The Governor's Commissions Recommendations on Groundwater: Treading Water Until the Next Drought

Kevin M. O'Brien*

"And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way." 1

I. INTRODUCTION

As once stated, the "essential ingredient of politics is timing," and the timing of the issuance of the Final Report of the Governor's Commission to Review California Water Rights Law ("Commission") could not have been worse from a political standpoint. The severe drought of 1976-1977 had ended, and dry conditions would not return to California until the 1987-1992 drought. Not coincidentally, the principal legislative recommendations of the Commission regarding groundwater received little attention from the Legislature until 1992. Furthermore, the groundwater statutes that eventually emerged from the legislative process bore little resemblance to the Commission's recommendations.

Why did the Commission achieve so little in the field of groundwater? The answer lies in part with the Commission's recommendations. For example, the Commission proposed groundwater management legislation that was ostensibly based on the principle of local primacy over groundwater management,⁵ but that gave the State Water Resources Control Board ("SWRCB") a prominent role in the development and oversight of local groundwater management programs. The groundwater management legislation that eventually emerged from the Legislature, 1992's Assembly Bill 3030,⁶ rejected the Commission's proposal for SWRCB involvement in groundwater management.

The legislative proposal for adjudication of water rights provides another example of a Commission recommendation that missed the mark. With little fanfare, the Commission proposed a rather radical change in the conceptualization of

^{*} Partner, Downey Brand LLP, Sacramento, California; J.D., University of Denver (1980); A.B., University of California, Davis (1977). The author gratefully acknowledges the assistance of Robia Chang in the research and preparation of this article.

^{1.} JOHN STEINBECK, EAST OF EDEN 6 (Penguin Books 2002) (1952).

^{2.} Pierre Elliot Trudeau, Creative Quotations from Pierre Elliot Trudeau, at http://creativequotations.com/one/2555.htm (last visited Sept. 15, 2004) (copy on file with the McGeorge Law Review).

^{3.} DEP'T OF WATER RES., CALIFORNIA'S GROUNDWATER UPDATE 2003, at 24 (Bulletin 118) [hereinafter DWR BULLETIN 118].

^{4.} See infra notes 6, 32-34 and accompanying text.

^{5.} See GOVERNOR'S COMMISSION TO REVIEW CALIFORNIA WATER RIGHTS LAW, FINAL REPORT 171 (Dec. 1978) [hereinafter Final Report].

^{6. 1992} Cal. Stat. ch. 947 (enacting the Groundwater Management Act codified at CAL. WATER CODE §§10750-10755.4 (West Supp. 2004)).

^{7.} See infra Part II.D.

groundwater rights, recommending that "the basis of future groundwater adjudications is fair and equitable apportionment of rights to extract groundwater, with considerable discretion to be left in the court to avoid races-to-the-pumphouse and other problems." In hindsight, the Commission's failure to discuss the implications, from a property rights standpoint, of its "equitable apportionment" proposal is difficult to comprehend. Notably, a unanimous California Supreme Court rejected the theory of "equitable apportionment" in the adjudication of groundwater rights in *City of Barstow v. Mojave Water Agency*.

The Commission's recommendations on groundwater are also noteworthy for what they failed to address. Many of the current "hot" topics in groundwater—the scope of county authority to regulate groundwater; appropriate hydrogeologic criteria for distinguishing percolating groundwater from subterranean stream flow; unanswered questions in the law of groundwater rights; rules governing water transfers based on groundwater substitution—received scant attention from the Commission. In many instances, of course, these topics had not risen to the surface of water policy debate in California at the time of the Commission's deliberations. It is nonetheless surprising (at least to this practitioner) that the Commission did not anticipate the emergence of some of these issues or attempt to influence their development.

Perhaps it was a mistake to include the vast topic of groundwater within the Commission's charter in the first instance. Historically in California, rightly or wrongly, the administration of rights to groundwater and surface water has been treated separately. Whereas the law of surface water rights is largely codified and administered at the state level, the law of groundwater rights is essentially based on common law principles and the administration and management of groundwater is left to local authorities or the courts. In addition, while much is known scientifically about the functioning of surface water systems, especially the complexities of the Sacramento-San Joaquin Delta, relatively little is known about the hydrogeology of certain important groundwater systems. ¹⁰ In many respects, the vast subject of groundwater warrants the establishment of its own Governor's Commission, focused on the development of solutions to the thorny problems that continue to emerge in relation to this critical resource.

^{8.} FINAL REPORT, supra note 5, at 169.

^{9. 5} P.3d 853, 864-69 (Cal. 2000).

^{10.} The most significant example of this lack of knowledge is the vast Sacramento Valley where the nature and extent of the hydrologic interconnection between the Sacramento River and its tributaries, on the one hand, and local groundwater basins, on the other, is now receiving its first comprehensive study. The study is in connection with the implementation of the Sacramento Valley Water Management Agreement, which pertains to the legal responsibility, if any, of Sacramento Valley water users to forego water diversions to assist in the attainment of water quality objectives in the Sacramento-San Joaquin Delta. See DWR BULLETIN 118, supra note 3, at 69.

II. THE COMMISSION'S SUCCESSES AND FAILURES

The central premise underlying the Commission's work on groundwater was stated succinctly: "California's extensive and extremely valuable groundwater resources are not adequately protected." As discussed in detail elsewhere in this symposium, the Commission recommended legislation in four subject areas: groundwater resources management; groundwater management districts; adjudication. If the following discussion examines the Commission's successes and failures in these areas.

A. Groundwater Resources Management

The Commission based its recommendations concerning groundwater management on the view that "local groundwater management entities . . . have primary responsibility for the protection and management" of the State's groundwater resources. ¹⁷ But the legislation proposed by the Commission made clear that two state agencies—the SWRCB and the Department of Water Resources ("DWR")—would play a prominent role in the development and implementation of local groundwater management programs. In the author's view, the designation of the SWRCB as the agency with primary responsibility for oversight of local groundwater management significantly contributed to the failure of the Commission's proposal to gain traction during the subsequent legislative process. The SWRCB is principally a regulatory agency, charged by statute with the responsibility of overseeing water quality and the administration of water rights in relation to surface water; it has neither the expertise nor the institutional capability to serve as a resource management agency.

The Commission's proposed legislation provided that the report to the Governor and the Legislature be submitted by the DWR pursuant to Water Code section 12924, which required identification of groundwater basin boundaries throughout the State, and would establish groundwater management area boundaries for all purposes unless disapproved by a concurrent resolution of the Legislature within one-hundred legislative days. It further empowered the

^{11.} FINAL REPORT, supra note 5, at 136.

^{12.} See generally Karen D. Bettencourt, Below the Surface: An Introduction to the Governor's Commission's Recommendations on the Management of Groundwater Resources, 36 McGeorge L. Rev. 405 (2005).

^{13.} See FINAL REPORT, supra note 5, at 170-93.

^{14.} See id. at 194-230.

^{15.} See id. at 231-36.

^{16.} See id. at 237-50.

^{17.} Id. at 171.

^{18.} CAL. WATER CODE § 12924 (West 1992).

^{19.} FINAL REPORT, supra note 5, at 179. Under the proposed legislation, the SWRCB was granted authority to recommend and establish groundwater management area boundaries for areas encompassing basins identified by the DWR whose establishment as groundwater management areas was disapproved by the

Legislature, by statute, to modify boundaries identified by the DWR.²⁰ Under the proposed legislation, groundwater management areas were to "encompass all areas of the State with significant groundwater resources." However, the SWRCB would be given authority to "classify as inactive" those areas that would "not be subject at that time to groundwater management authority designation and program requirements."²²

Following the establishment of groundwater management areas, local entities within the area would be provided an opportunity "to identify a responsible [agency] to carry out the groundwater management program" and send its nomination to the SWRCB. ²³ In addition, local entities with jurisdiction over all, or substantially all, of the area could "petition the [SWRCB] to designate the local entity as the groundwater management authority for the area." ²⁴ If local entities failed to step forward, then the SWRCB would be required to "designate one such local entity as the groundwater management authority for the area" and "submit its designation . . . to the Legislature." ²⁵ The designation would become effective unless disapproved by the Legislature within a specified time period. ²⁶ If the SWRCB determined that no local entity covered all, or substantially all, of the groundwater management area, and "no joint powers authority [was] organized for the area . . . , then a groundwater management district . . [would] be formed in the area, and . . . designated [the] groundwater management authority for the area."

With respect to the content of groundwater management programs, the proposed legislation provided that the groundwater management authority would adopt a groundwater management program. Again, the SWRCB received a prominent role—to evaluate each program and determine whether the groundwater management objectives stated in the program conform to specified legislative policies and "whether the implementation plan [would] be adequate to achieve the groundwater management objectives stated in the program." If no local authority transmitted a groundwater management program to the SWRCB for an area, or if a program was considered inadequate, the SWRCB was authorized to request that the Attorney General seek judicial relief. Once requested to do so, the Attorney General could file in the superior court an action

Legislature. Such recommended boundaries would become the designated boundaries for all purposes unless disapproved by the Legislature. *Id.* at 180.

^{20.} Id.

^{21.} Id. at 179.

^{22.} Id. at 181.

^{23.} Id. at 183-84.

^{24.} Id. at 185.

^{25.} *Id.* at 185-86.

^{26.} Id.

^{27.} Id. at 187.

^{28.} Id. at 188.

^{29.} Id. at 190.

^{30.} Id.

for: (1) an adjudication of rights to groundwater in the area; (2) "imposition of an appropriate groundwater management program, and for issuance of a preliminary injunction against increased extraction in the groundwater management area until a program is prepared; or (3) other appropriate relief."³¹

It took more than a dozen years following issuance of the Commission's Final Report for the Legislature to adopt generally-applicable groundwater management legislation. The statutory scheme that eventually emerged—1992's Assembly Bill 3030³²—bears little resemblance to the legislation proposed by the Commission. While the Legislature retained the principle of local primacy advanced by the Commission, it rejected the mandatory elements of the Commission's proposal in favor of a program that is, in effect, voluntary. More significantly, the Legislature gave the SWRCB no authority to review or approve groundwater management programs and essentially eliminated the DWR's role in plan development. Page 1992 and 1992 and 1992 are planted to the Commission's proposal in favor of a program that is, in effect, voluntary.

Did the Commission have the better approach to groundwater management? The DWR recently observed:

How successful groundwater management has been throughout the State is a difficult question and cannot be answered at present. While there are many examples of local agency successes . . . , there are neither mandates to prepare groundwater management plans nor reporting requirements when plans are implemented, so a comprehensive assessment of local planning efforts is not possible. Additionally, many plans have been adopted only recently, during a period of several consecutive wet years, so many of the plan components are either untested or not implemented. 35

Given the lack of comprehensive state legislation addressing the administration of private rights to groundwater in California,³⁶ it is imperative that local mechanisms for groundwater management be fostered and developed. But the "command and control" model proposed by the Commission, in which the

^{31.} Id. at 190-91.

^{32. 1992} Cal. Stat. ch. 947 (enacting the Groundwater Management Act codified at CAL. WATER CODE §§10750-10755.4 (West Supp. 2004)).

^{33.} In 2002, new legislation, Senate Bill 1938, modified Assembly Bill 3030. 2002 Cal. Stat. ch. 603 (codified at CAL. WATER CODE §§ 10753.1, 10753.4, 10753.7-10753.10, 10795.4). Among other things, Senate Bill 1938 imposed new standards for groundwater management plans and provided that a local agency that completes an upgrade of its plan to meet the requirements of the new legislation within one year of applying for state funds for certain groundwater projects shall be given "priority consideration" for state funds administered by the DWR over local agencies that are in the process of developing a groundwater management plan. *Id.* (as codified in CAL. WATER CODE § 10753.7(b)(1)(A)).

^{34.} Senate Bill 1938 requires that all local agencies that adopt a groundwater management plan pursuant to Senate Bill 1938 submit a copy of the plan to the DWR, and that the DWR make copies of these plans available to the public. 2002 Cal. Stat. ch. 603.

^{35.} DWR BULLETIN 118, supra note 3, at 44 (citation omitted).

^{36.} Gregory S. Weber, Forging a More Coherent Groundwater Policy in California: State and Federal Constitutional Challenges to Local Groundwater Export Restrictions, 34 SANTA CLARA L. REV. 373, 377 (1994).

SWRCB would assume the role of chief overseer of local groundwater management efforts, would, in the author's view, likely trigger a political backlash that would ultimately retard the development of effective groundwater management programs at the local level. The current incremental approach, while at times frustratingly slow in its progress, is more likely to achieve positive long-term results.

A key issue in the development of local groundwater management programs is funding. In recent years, agricultural water districts in California have been forced to accept a variety of new fees and assessments which, in the aggregate, have exacerbated the problem of lack of funding for local groundwater management programs.³⁷ Recent legislation has established funding mechanisms for the development and expansion of local groundwater management programs³⁸ and it appears that local agencies throughout the State are becoming more aware of the need to upgrade their management efforts. The legislation also requires that groundwater management plans include specific components to establish agency eligibility for public funds for groundwater projects.³⁹ It remains to be seen whether the "carrot" approach to groundwater management advanced by the Legislature achieves sufficient results to avoid the "stick" approach proposed by the Commission.

B. Groundwater Management Districts

As a companion to its legislative proposals for groundwater resources management, the Commission proposed enabling legislation for the formation of groundwater management districts. ⁴⁰ In the absence of an existing groundwater management authority for an area, the Commission proposed to require the establishment of groundwater management districts, which would develop and implement groundwater management programs for the area. ⁴¹

The proposed legislation drew heavily from the provisions of existing water district laws with respect to organizational structure and procedural requirements. But the Commission also included several new provisions to aid in the develop-ment of effective groundwater management programs. First, the legislation provided that groundwater management districts may require extraction facilities situated within the groundwater management area to register with the groundwater management district, and to provide bi-annual statements setting forth the total amount of water

^{37.} One example, applicable to districts that contract for water through the Central Valley Project, is the restoration fund payments required under section 3407 of the Central Valley Project Improvement Act ("CVPIA"), Pub. L. 102-575, 106 Stat. 4600 (1992).

^{38.} A.B. 303, 2000 Cal. Stat. ch. 708, sec. 2 (enacting the Local Groundwater Management Assistance Act of 2000 codified at CAL. WATER CODE §§ 10795-10795.20 (West 2004)).

^{39.} S.B. 1938, 2002 Cal. Stat. ch. 603 (as codified in CAL. WATER CODE § 10753.7).

^{40.} See FINAL REPORT, supra note 5, at 194-230.

^{41.} Id. at 187.

extracted during the preceding six-month period. Second, it gave the groundwater management district "authority to control groundwater storage rights within the groundwater management area, and to enter into groundwater storage agreements." Third, it authorized the imposition of groundwater extraction charges and "basin equity assessments" on all groundwater extraction facilities within the groundwater management area, except the extraction of water stored pursuant to a groundwater storage agreement or other storage commenced before the designation of the groundwater management authority for the area.

The Commission's proposed groundwater management district legislation was never adopted. The enactment of Assembly Bill 3030 in 1992 provided an alternative mechanism for developing groundwater management plans by existing local agencies. In those areas where existing local agencies either did not exist or declined to promulgate groundwater management plans, the Legislature has selectively enacted special legislation authorizing the formation of local groundwater management entities. Special legislation has been shown to be an effective mechanism for establishing local groundwater management efforts, particularly in areas that have specific groundwater problems such as seawater intrusion or overdraft.

C. Conjunctive Use of Groundwater and Surface Water

The Commission proposed legislation to promote greater conjunctive use of groundwater and surface water by clarifying: (1) the nature and extent of rights to use groundwater basin storage space;⁴⁷ (2) the role of groundwater storage agreements;⁴⁸ (3) the rules governing extraction of stored water;⁴⁹ and, (4) the relative priority for use of a groundwater basin for purposes of replenishing and managing local groundwater supplies versus use of the basin for storage of water.⁵⁰ The Commission's conjunctive use proposals met with very little success in the Legislature.

^{42.} Id. at 211, 213.

^{43.} Id. at 216.

^{44.} Id. at 216-17, 220-24.

^{45.} CAL. WATER CODE app. chs. 40, 60, 100, 118, 119, 121, 124, 128, 129, 131, 135 (West 1995 & Supp. 2004); CAL. WATER CODE §§ 10700-10717 (West Supp. 2004).

^{46.} One example is the Salinas Valley, where seawater intrusion has been a problem for more than fifty years. Following many years of local effort, the Monterey County Water Resources Agency, a district established pursuant to special legislation, CAL. WATER CODE app. ch. 52, § 4 (West 1999), recently approved the Salinas Valley Water Project, which is designed to halt seawater intrusion and provide for water supply needs in the Salinas Valley over the next several decades.

^{47.} See FINAL REPORT, supra note 5, at 231-33.

^{48.} Id. at 233-35.

^{49.} Id. at 235.

^{50.} Id. at 236.

1. Underground Storage Rights and Storage Agreements

The Commission proposed that the groundwater management authority for each groundwater management area be given the authority; first, "to control all groundwater storage rights within the groundwater management area" and, second, "to determine the amount of groundwater basin storage space available and to allocate groundwater basin storage space within the area." The Commission also proposed legislation requiring that all groundwater basin storage by a person, who is not the area's groundwater management authority, be done through a groundwater storage agreement between that person and the groundwater management authority. Finally, the legislation provided that:

the groundwater management authority shall give priority to the reasonable water supply needs of the area overlying the basin and the area historically supplied by the basin's water supply and to replenishment of the basin pursuant to a management program. Any remaining basin storage space shall be available for the use and benefit of other users outside of the groundwater management area. ⁵³

None of these proposals became law.

Was the Commission correct in attempting to clarify the law on ownership of underground storage space? In the author's view, given the rather confusing and unsettled state of California law in this area,⁵⁴ and the need for clear rules defining ownership rights if conjunctive use programs are to proliferate, the Commission was correct in attempting to address this issue. The following discussion briefly highlights the key unresolved issues.

Many western states provide, by statute or case law, that the owner of land in fee has the right to the surface and everything situated beneath it.⁵⁵ On its face, this rule of law would seem to provide landowners with a strong claim to compensation for public use of the storage space underlying their property. But the cases decided to date have tended to limit the liability of public recharge project operators, at least in situations where the private landowner cannot

^{51.} Id. at 231.

^{52.} Id. at 233.

^{53.} Id.

^{54.} For general commentary on this topic, see, e.g., Victor E. Gleason, Water Projects Go Underground, 5 ECOLOGY L.Q. 625 (1976); Norman W. Thorson, Storing Water Underground: What's the Aqui-Fer? 57 NEB. L. REV. 581 (1978); see also William A. Hillhouse II, Integrating Ground and Surface Water Use in an Appropriation State, 20 ROCKY MTN. MIN. L. INST. 691 (1975); Susan M. Trager, Emerging Forums for Groundwater Dispute Resolution in California: A Glimpse at the Second Generation of Groundwater Issues and How Agencies Work Towards Problem Resolution, 20 PAC. L.J. 31 (1988).

^{55.} E.g., CAL. CIV. CODE § 829 (West 1982) ("The owner of land in fee has the right to the surface and to everything permanently situated beneath or above it."); 5 RICHARD R. POWELL, POWELL ON REAL PROPERTY ¶ 64A.01[6] (2004) (landowner has cause of action in trespass for intrusion into subsurface of land).

demonstrate that the public use has interfered with a valid private use of the subsurface.

The most frequently-discussed case addressing the rights of a private landowner vis-à-vis the rights of a public entity engaged in artificial recharge is *Niles Sand & Gravel Co. v. Alameda County Water District*, ⁵⁶ decided prior to issuance of the Commission's Final Report. *Niles* has been cited by some commentators for the broad proposition that public entities need not compensate overlying landowners for using groundwater basin storage space. ⁵⁷ Due to the unique facts of the case, however, *Niles* is questionable authority for such a broad proposition. ⁵⁸

Niles was a dispute between a commercial sand and gravel company trying to dewater its gravel pits and a water district importing water to recharge the groundwater basin to prevent saltwater intrusion and augment local water supplies.⁵⁹ The court found that the sand and gravel company, by dewatering its gravel pits and causing the discharged water (approximately five million gallons per day) to run off into San Francisco Bay, was engaged in an unreasonable use of water,⁶⁰ in violation of California's constitutional prohibition against unreasonable use.⁶¹ The court held that private lands are subject to a "public servitude" that allows the underlying aquifer to be recharged by a public water district.⁶² This is so long as the recharge does not raise the water table above the "state of nature" level that would have existed without diversions from the watershed or extractions from the basin.⁶³

The gravel company argued that the trial court had arranged "to create a new property interest for the benefit of a public agency, label it a 'servitude,' and thereby allow that agency to escape liability to the landowner for damages in inverse condemnation." The appellate court rejected this argument based on a rather breathtaking analytical leap. The court reasoned that, although the servitude is a burden on the property owner's subsurface land, the doctrinal basis for the servitude is the right to use the percolating groundwater rather than the right to use the subsurface land itself. By deriving the servitude from California's correlative rights doctrine, which originated in 1903, the court was able to conclude that it had not created a new property interest, but that it had

^{56. 112} Cal. Rptr. 846 (Ct. App. 1975), cert. denied, 419 U.S. 869 (1974).

^{57.} See, e.g., Ronald B. Robie & Patricia R. Donovan, Water Management of the Future: A Ground Water Storage Program for the California State Water Project, 11 PAC. L.J. 41, 53 (1979) (stating Niles held that public entities need not pay to use groundwater basin storage space).

^{58.} Professor Trelease observed that Niles "is not quite in point" as to this proposition. Frank J. Trelease, Conjunctive Use of Groundwater and Surface Water, 27 ROCKY MTN. MIN. L. INST. 1853, 1882 (1981).

^{59.} Niles, 112 Cal. Rptr. at 847.

^{60.} Id. at 853.

^{61.} CAL. CONST. art. X, § 2.

^{62.} Niles, 112 Cal. Rptr. at 852-53.

^{63.} Id. at 853-54.

^{64.} Id. at 852.

^{65.} Id.

merely recognized a burden on the gravel company's water rights which had existed all along.⁶⁶

Because *Niles* involved a private use of water that was expressly found to be unreasonable, and thus not subject to constitutional protection, the case may not resolve the important issue of whether a public entity may spread groundwater in a manner that precludes an overlying landowner from making a valid use of the subsurface of his real property without compensation.⁶⁷ Given the recent direction of federal takings jurisprudence,⁶⁸ it is unclear whether the courts would sanction public use of an aquifer to the detriment of a landowner's valid private use without the requirement of compensation.

City of Los Angeles v. City of San Fernando⁶⁹ also addressed the issue of use of underground storage space, albeit in a context that essentially involved only competing public entities. The court reaffirmed the ruling in City of Los Angeles v. City of Glendale⁷⁰ which had extended the provisions of California Water Code section 7075⁷¹ to "the addition and withdrawal of water in an underground basin." In its analysis of this issue, however, the San Fernando court failed to draw a clear distinction between the right to use underground storage space and the right to recapture stored water. Moreover, by relying on Water Code section 7075, the court implicitly recognized that the right of a public entity to store water in an underground aquifer is subject to certain limitations, including the requirement that the storage of imported water underground not impair native groundwater rights.⁷³

Finally, in Central and West Basin Water Replenishment District v. Southern California Water Company,⁷⁴ the court characterized subsurface storage space as a "public resource," rejecting the argument of a water utility that the right to store water in a basin is "linked" to the right to extract water.⁷⁵

Given the unsettled state of the law regarding rights to the use of underground storage space, it is not surprising that artificial recharge project operators in California have tended to rely on *contractual* mechanisms to bridge the gap between existing law and project needs.⁷⁶ But where consensual arrangements providing for

^{66.} Id. at 853.

^{67.} See Trager, supra note 54, at 68.

^{68.} E.g., Dolan v. City of Tigard, 512 U.S. 374 (1994).

^{69. 537} P.2d 1250 (Cal. 1975).

^{70. 142} P.2d 289, 294-95 (Cal. 1943).

^{71.} CAL. WATER CODE § 7075 (West 1992) ("Water which has been appropriated may be turned into the channel of another stream, mingled with its water, and then reclaimed; but in reclaiming it the water already appropriated by another shall not be diminished.").

^{72.} San Fernando, 537 P.2d at 1295.

^{73.} See Gleason, supra note 54, at 640.

^{74. 135} Cal. Rptr. 2d 486, 496 (Ct. App. 2003).

^{75.} Id. at 496.

^{76.} For example, the groundwater storage program conducted by the Semitropic Water District in Kern County utilizes recorded agreements executed by overlying landowners to confirm the rights of the District to utilize the underground storage space (copy of agreement on file with the McGeorge Law Review).

the use of underground storage space are not obtainable, conjunctive use program operators may be at risk of claims for compensation by affected landowners. The viability of such claims will depend on the future course of development of the law in this critical area. Clarifying legislation would presumably remove some of the uncertainty in this area, and promote the goal of expansion of conjunctive use of groundwater and surface water.

2. Extraction of Stored Water and Rights to Replenish and Manage

The Commission proposed legislation stating that:

[t]he amount of water stored in a groundwater basin shall be subject to recapture by the person who stored the water or pursuant to an agreement with the person who stored the water. It shall be presumed that the person who stores water in a groundwater basin intends to recapture that water from the basin.⁷⁷

The legislation further provided that "[l]osses of native water caused by storage shall be allocated to the stored water to the extent the water causes the loss, unless otherwise provided in an applicable groundwater storage agreement." The determination of native water losses caused by storage was subject to judicial review under section 1094.5 of the Code of Civil Procedure. Finally, the legislation provided that "[u]se of a groundwater basin for the purpose of replenishing and managing local groundwater supplies shall have priority over the use of a basin for storage of water," and that "[t]he person placing the replenishment water in the basin shall have the authority to manage the use of that water." Again, none of these proposals became law.

In California, the rights of public entities engaged in underground storage operations to recapture water that has been stored underground have typically been defined through detailed agreements governing the importation, storage, and extraction of water, often in the form of a stipulated judgment entered in a groundwater adjudication action.⁸¹ But in unadjudicated basins, the lack of a legal framework of priorities for allocating storage rights among various agencies raises difficult issues which, in at least one instance, has triggered litigation.⁸²

^{77.} FINAL REPORT, supra note 5, at 235.

^{78.} Id.

^{79.} Id.; CAL. CODE CIV. PROC. § 1094.5 (West Supp. 2004).

^{80.} FINAL REPORT, supra note 5, at 236.

^{81.} E.g., Chino Basin Mun. Water Dist. v. City of Chino, No. 164327 (Cal. Super. Ct. San Bernadino County Jan. 27, 1978).

^{82.} See, e.g., supra text accompanying note 10 (discussing the Sacramento Valley Water Management Agreement); In Re Santa Maria Valley Groundwater Litig., No. 1-97-CV-770214 (Cal. Super. Ct. Santa Clara County) [hereinafter "the Santa Maria Litigation"] (copy on file with the McGeorge Law Review). The Santa Maria Litigation involves, inter alia, competition between municipal users engaged in the importation of water via the State Water Project and a local water conservation district which operates a surface storage and

Professor Trelease foresaw this problem in an early article:

Not all of California's conjunctive use problems have been solved by Niles and San Fernando. The next phase of the State Water Project (SWP) will be to maximize its deliveries to the southern counties, and this will require storage at the lower end of the California Aqueduct to meet peak demands and provide supplies for use during dry periods or in case of prolonged disruption of SWP service. Prominently lacking, in the eyes of the project director, is a legal framework of priorities for allocating storage rights among the various agencies that may have concurrent powers to store water within a particular basin. For instance, the Chino Basin on the eastern fringe of Los Angeles is covered by four districts that have some powers over parts of the overlying land. An illustration portraying one possible plan for ultimate solution of the basin's groundwater problems that would include these rights, some private rights and some new SWP water shows a veritable pousse-café of seven layers of water stacked one above the other. While the Department of Water Resources now has the authority to undertake the physical project, it has recommended clarifying legislation on these priorities and on procedures and safeguards for implementing the program.⁸³

Niles and San Fernando "seem[] to imply that overlying water agencies have a prior right to store enough water underground to assure an adequate annual water supply for the overlying community." Such a limitation would be consistent with the correlative rights doctrine on which Niles is purportedly based. Where a basin contains more storage capacity than is required by overlying users, and more than one agency desires to utilize such capacity, the priority rules remain unclear. Legislation addressing the latter issue would be useful, given the proliferation of conjunctive use projects throughout the State.

D. Groundwater Rights Adjudication

The Commission made a series of recommendations concerning the adjudication of groundwater rights.⁸⁶ Although the bulk of the recommendations involved proposed changes in the rules of civil procedure, aimed at reducing the

groundwater recharge project. For further information regarding the Santa Maria Litigation, see Eric L. Garner & Jill N. Willis, Right Back Where We Started From: The Last 25 Years of Groundwater Law in California, 36 McGeorge L. Rev. 413 (2005).

^{83.} Trelease, supra note 58, at 1883-1884 (citations omitted).

^{84.} Gleason, supra note 54, at 665.

^{85.} Under the correlative rights doctrine, absent prescription, overlying landowners have priority over appropriators as to a basin's native yield. Katz v. Walkinshaw, 74 P. 766 (Cal. 1903).

^{86.} FINAL REPORT, supra note 5, at 237-50.

length and cost of adjudications, ⁸⁷ the recommendations also included changes in the substantive law of groundwater rights. Again, the Commission recommendations met with little success in the Legislature.

The Commission's procedural recommendations attempted to address the myriad of procedural and logistical issues that confront litigants in groundwater adjudications. First, the Commission proposed the mandatory disqualification of a judge when a portion of the groundwater adjudication area lies within the county of his/her superior court, ⁸⁸ and the mandatory assignment, by the chairperson of the Judicial Council, of one judge to preside over all proceedings relating to the action. ⁸⁹ Under the Commission's recommendations, Code of Civil Procedure sections 170.6, ⁹⁰ relating to disqualification of judges, and 394, ⁹¹ relating to change of venue in cases involving a county, city, or local agency, would not apply to groundwater adjudications. ⁹²

Second, the procedural recommendations established strict time requirements for seeking reference to the SWRCB pursuant to section 2001 of the Water Code, ⁹³ and special procedures for identification of persons or entities known to own or operate a well within the adjudication area. ⁹⁴ Significantly, the Commission proposed that so long as the plaintiff included as named parties in the action all persons or entities known, or who with reasonable diligence can be determined, to own or operate a well within the jurisdiction, the action would not be subject to dismissal for failure to join indispensable parties. ⁹⁵ Also included was a recommended procedure for publication of notice that the adjudication had been commenced and for the filing of a proof of claim by "all claimants of present or future rights to use groundwater" within a specified timeframe. ⁹⁶

Finally, the Commission addressed the subject of remedies. The Commission first proposed a subtle but important modification of the rules of evidence, providing that, in a proceeding on a motion for preliminary injunction involving allegations of long-term overdraft, bulletins or other reports of the DWR studies "indicating that a long-term overdraft exists shall be admissible and shall constitute prima facie evidence of the overdraft." In the author's view, this rather substantial modification of the rules of evidence in relation to the admissibility of hearsay, raises significant due process concerns. This is due to the fact that, typically, the authors of early DWR reports on purportedly over-

^{87.} Id. at 169.

^{88.} Id. at 240.

^{89.} Id

^{90.} CAL. CODE CIV. PROC. § 170.6 (West Supp. 2004).

^{91.} Id. § 394.

^{92.} FINAL REPORT, supra note 5, at 240.

^{93.} Id. at 241.

^{94.} Id.

^{95.} *Id*.

^{96.} Id. at 242-45.

^{97.} Id. at 245.

drafted basins are not available for cross-examination, and the methodologies and definitions of overdraft utilized by such early investigators may be highly questionable given current-day legal definitions and hydrologic knowledge. ⁹⁸ The Commission also proposed special procedures for *lis pendens*, which provided that the court shall order a *lis pendens* giving notice of the initiation of groundwater adjudication proceedings and including a description of the area of the adjudication, to be recorded in the office of the county recorder of the county or counties in which the groundwater basin or management area is situated. ⁹⁹ The *lis pendens* would include a statement that "all landowners claiming present or future rights to extract groundwater, and their successors in interest, [would] be bound by the adjudication." ¹⁰⁰ Lastly, the proposal included provisions for court imposition of a physical solution, ¹⁰¹ which appears to codify existing law; ¹⁰² for binding successors to judgments entered in groundwater adjudications; ¹⁰³ and, for continuing jurisdiction. ¹⁰⁴

While the goal of streamlining the groundwater adjudication process is a worthy one, California trial court judges possess ample authority to adopt special procedures for groundwater adjudications under existing rules relating to complex litigation. The Commission's "one size fits all" approach to groundwater adjudications would not significantly improve, and indeed might hinder, the administration of justice in this area. A better approach would be to establish recommended general procedures for the conduct of groundwater adjudications. Because groundwater adjudications differ significantly from case to case with respect to the nature and complexity of the legal and factual issues, it is important that trial judges retain flexibility to craft procedural mechanisms that fit the circumstances of the case.

As noted, the Commission also recommended a series of changes in the substantive law of groundwater rights, applicable only in the context of groundwater adjudications. Taken as a whole, these changes, if adopted, would have resulted in a fairly radical reformulation of the law of groundwater rights in California.

^{98.} The author is aware of one case in which litigants attempted to establish overdraft through the introduction of early reports by the DWR and the United States Geological Survey. The trial court ruled such reports inadmissible hearsay on the issue of overdraft. See supra text accompanying note 80 (discussing the Santa Maria Litigation).

^{99.} FINAL REPORT, supra note 5, at 246.

^{100.} Id.

^{101.} Id. at 248.

^{102.} See, e.g., Peabody v. Vallejo, 40 P.2d. 486, 498-99 (Cal. 1935); City of Lodi v. E. Bay Mun. Util. Dist., 60 P.2d 439, 450 (Cal. 1936); Hillside Water Co. v. City of Los Angeles, 76 P.2d 681, 685-86 (Cal. 1938); Rancho Santa Margarita v. Vail, 81 P.2d 533, 563 (Cal. 1938); Allen v. Cal. Water & Tel. Co., 176 P.2d 8, 18-19 (Cal. 1946); City of Los Angeles v. City of San Fernando, 537 P.2d 1250, 1316 (Cal. 1975).

^{103.} FINAL REPORT, supra note 5, at 248.

^{104.} Id. at 248-49.

^{105.} See CAL, CODE CIV. PROC. §§ 128, 187 (West 1982 & Supp. 2004); CAL. R. CT. 1800-1830 (2000).

The Commission first proposed that "[i]n a groundwater adjudication, where there is a long-term overdraft, rights to the use of the available supply of groundwater shall be allocated primarily on the basis of recent use." The Commission proposed a hierarchy of priorities based on the premise that "[e]xtraction of groundwater based on a pueblo right and extraction to recapture imported water stored in a groundwater basin directly or indirectly [would] have priority over all other rights." In the same vein, the Commission proposed that "[n]o right shall be reserved for any prospective overlying use unless the prospective overlying user has, prior to the filing of the complaint in the adjudication, obtained a declaratory judgment that establishes that right."

The Commission apparently failed to consider the due process issues raised by its proposal to subordinate rights to "prospective" overlying use. In Wright v. Goleta Water District, 109 the trial court determined, in the context of a court adjudication of groundwater rights, that unexercised overlying rights had lower priorities than rights actually exercised. 110 The trial court relied principally on In re Waters of Long Valley Creek Stream System, 111 which held that, in the context of a statutory adjudication of all claimed rights to the use of water in a stream system conducted pursuant to Water Code section 2500 et seq., 112 the SWRCB had the power to define and otherwise limit prospective riparian rights. 113 But the Court of Appeal held that "the application of Long Valley to a private adjudication would allow prospective rights of overlying landowners to be subject to the vagaries of an individual plaintiff's pleading without adequate due process protections." Thus, absent the establishment of procedures for the comprehensive adjudication of groundwater rights akin to the procedures for adjudication of surface water rights established by Water Code section 2500 et seq., 115 it appears that due process requirements would bar adoption of the Commission's recommendations in this regard.

The Commission also proposed that, in a groundwater rights adjudication where there is a long-term overdraft, "[a]ll groundwater right holders, except holders of a pueblo right or a right to recapture imported water stored in a groundwater basin directly or indirectly, shall share proportionately in any aggregate reduction in extractions"¹¹⁶ This allocation scheme was subject to the trial court's discretion to "consider factors in addition to recent use to avoid

^{106.} FINAL REPORT, supra note 5, at 237.

^{107.} Id.

^{108.} Id.

^{109. 219} Cal. Rptr. 740 (Ct. App. 1985).

^{110.} Id. at 745.

^{111. 599} P.2d 656 (Cal. 1979); Wright, 219 Cal. Rptr. at 745.

^{112.} CAL. WATER CODE §§ 2500-2850 (West 1971 & Supp. 2004).

^{113.} Long Valley, 599 P.2d at 668-69.

^{114.} Wright, 219 Cal. Rptr. at 750.

^{115.} CAL. WATER CODE §§ 2500-2850.

^{116.} FINAL REPORT, supra note 5, at 238.

placing inequitable or undue burdens on any party "117 Finally, in determining rights to groundwater in a basin that is not in overdraft, the Commission noted that:

rights to groundwater shall be allocated first for extraction of groundwater based on a pueblo right and for extraction to recapture imported water stored in a groundwater basin directly or indirectly, then for extraction for overlying uses on a correlative basis, and then for extraction for appropriative uses on a first in time, first in right basis, subject to any prescription which may have occurred. 118

The Commission's proposal to adopt "equitable apportionment" as the touchstone for adjudication of groundwater rights in an overdrafted basin, and its failure to recognize and discuss the implications of its proposal from a property rights standpoint is, in hindsight, rather startling. More than two decades following the issuance of the Commission's Final Report, public water purveyors, relying principally on a footnote in *City of Los Angeles v. City of San Fernando*, asserted that groundwater rights are subject to equitable apportionment in a groundwater adjudication involving a basin that has been in long-term overdraft. In *City of Barstow v. Mojave Water Agency*, a unanimous California Supreme Court held that the courts may not wholly disregard the priorities of existing water rights in favor of equitable apportionment in groundwater adjudications.

The decision in *City of Barstow* underscores a consistent theme in the Commission's work on groundwater—failure to acknowledge the body of appellate case law that defines the attributes of groundwater rights, in particular overlying groundwater rights, under California law. In several instances, the Commission's proposals seek to redefine the attributes of groundwater rights without acknowledging such redefinition or discussing its constitutional implications. The Commission's approach in this regard calls to mind Justice Stewart's often-discussed concurring opinion in *Hughes v. State of Washington*¹²⁴ in which he observed that:

a state cannot be permitted to defeat the constitutional prohibition against taking property without due process of law by the simple device of asserting retroactively that the property it has taken never existed at all. Whether the decision here worked an unpredictable change in state law

^{117.} Id. at 237.

^{118.} Id. at 239.

^{119.} The Commission's Final Report uses the term "equitable apportionment" in describing the proposed legislation. *Id.* at 169. The term, however, is not used in the Commission's legislative proposal.

^{120. 537} P.2d 1250, 1298 n.61 (Cal. 1975).

^{121.} City of Barstow v. Mojave Water Agency, 5 P.3d 853, 867 (Cal. 2000).

^{122.} Id.

^{123.} Id. at 869.

^{124. 389} U.S. 290 (1967) (Stewart, J. concurring).

thus inevitably presents a federal question for the determination of this Court. 125

While the Commission's efforts to clarify California groundwater law was laudable in several respects, its attempts to redefine established rights simply went too far, and ultimately resulted in failure in the Legislature. Future commissions would be well-advised to stay within the framework of groundwater rights as defined by the courts in developing recommendations and legislative proposals.

III. THE FUTURE OF CALIFORNIA GROUNDWATER LAW

While a comprehensive review of future issues in California groundwater law is beyond the scope of this article, the following brief discussion examines three issues that are likely to arise in future years. Unless legislation is enacted clarifying the applicable rules of law, it would appear that each of these issues will ultimately be resolved by the courts.

A. In Lieu Storage

Many of the artificial recharge projects developed in California rely in whole or in part on so-called "in lieu" storage—"the underground storage that results when a groundwater right owner forgoes the extraction of a certain amount of groundwater by substituting imported *surface* water supplies. ¹²⁶ This widespread reliance on in lieu storage is remarkable in light of the absence of legal authority recognizing and defining the in lieu storage right. ¹²⁷ As discussed earlier, the response in California has been the development of contractual mechanisms to bridge the gap between legal authority and practical necessity. ¹²⁸

There are compelling policy arguments on both sides of the in lieu storage debate. In the typical factual setting, underground storage is accomplished through a

^{125.} Id. at 296-97.

^{126.} Gleason, *supra* note 54, at 664 (defining exchange, or lieu, storage). For example, the storage operations conducted by the Semitropic Water Storage District in Kern County, California currently rely exclusively on in lieu storage. *See* Sample Contract Between Semitropic Improvement District of Semitropic Water Storage District and for Intermittent Water Deliveries In Lieu of Groundwater Pumping (1997) (copy on file with the *McGeorge Law Review*).

^{127.} One leading California commentator states: "[S]ince neither San Fernando nor Niles involved claims for in-lieu storage, additional judicial, legislative or contractual authority will apparently be necessary to provide the protection necessary for storing water underground by surface water exchange provisions." Gleason, supra note 54, at 665. No subsequent California case or statute clarifies the law in this regard, although the issue has been the subject of litigation in California. See San Benito County Water Dist. v. Del Piero, No. 18123 (Cal. Super. Ct. San Benito County filed Aug. 19, 1994). The unpublished opinion of the Court of Appeal in the San Benito Litigation did not reach the in lieu storage issue because the court concluded that there was no surplus water in the subject basin even when considering the imported water. Id. at 23 n.9. The Court, after recognizing the "keen interest" in the in lieu storage issue of certain amici, stated: "We are not inclined to decide these important and difficult issues until a case requires us to do so." Id.

^{128.} See supra Part II.C.1.

reduction in pumping made possible by the delivery of imported surface water; recapture is accomplished by pumping from private wells, for which the importing district charges a water toll. The difference between the price of imported surface water and the pumped water charge is a tool for managing groundwater levels. The importing district can achieve the same result of groundwater management and replenishment by this in lieu storage, it is argued, without the expense and environmental disruption caused by the construction of percolating ponds, injection wells, recovery wells, or more extensive distribution systems. It is further argued that neither legal nor policy considerations justify penalizing the importing district for using a more efficient means of achieving the same goal (artificial recharge) that was recognized and protected in cases such as *San Fernando* and *Niles*. Finally, proponents of the in lieu concept argue that the "entity bearing the cost of substituted surface water supply should logically have a claim to the resulting groundwater augmentation, and should be permitted to preserve, lease or sell its rights to the exchange waters." ¹²⁹

On the other side of the coin, the question arises: if in lieu storage is such a good idea, why have the legislatures of most western states declined to endorse the principle? The answer may lie in considerations of maximum utilization of water resources.

Under California's correlative rights doctrine, one of two sets of allocation rules will apply, depending on the condition of the basin from which groundwater is to be extracted. If the basin water supply exceeds the reasonable needs of overlying landowners, the basin is deemed to be in "surplus" condition and non-overlying users are entitled to appropriate the surplus for use on non-overlying lands. ¹³⁰ If the basin supply is insufficient to meet the reasonable needs of all overlying users, then the overlying users are entitled to share the available supply in correlation to their respective needs. ¹³¹ Absent proof of prescription, appropriators have no right to utilize water from a basin where no surplus exists.

The policy debate over in lieu storage is brought into clear focus in the following factual scenario: A basin is in overdraft¹³² condition for a period of many years. Importation of supplemental surface water to the basin commences and water users begin substituting surface water for groundwater. The basin returns to surplus condition as a result of the importation of supplemental water. A non-overlying user (or an overlying user with a previously inadequate water

^{129.} Gleason, supra note 54, at 665.

^{130.} Katz v. Walkinshaw, 74 P. 766, 772 (Cal. 1903).

^{131.} *Id*.

^{132.} Under California law, "overdraft" occurs when extractions exceed safe yield plus any "temporary surplus." "Safe yield" is:

the maximum quantity of water which can be withdrawn annually from a ground water supply under a given set of conditions without causing an undesirable result. The phrase 'undesirable result' is understood to refer to a gradual lowering of the ground water levels resulting eventually in depletion of the supply.

City of Los Angeles v. City of San Fernando, 537 P.2d 1250, 1308 (Cal. 1975) (citation omitted).

supply) who does not share in the cost of importing the supplemental water proposes to utilize the newly-created basin surplus. The importing district has no current need for the surplus basin water because there is sufficient imported water to meet its water supply requirements and the district is bound by "take or pay" contract requirements to purchase the supplemental water. If groundwater levels continue to rise, there will eventually be a discharge of surplus water from the basin to the ocean or other non-usable source. It is not necessary to maintain such discharge to prevent seawater intrusion or other undesirable conditions.

In this scenario, the importing district would argue that the non-overlying user should not receive an economic free ride and should not benefit from the district's efforts and investment. It would further argue that conjunctive use of groundwater and surface water is urgently needed to maximize available water supplies and that no responsible agency would consider risking the major public expenditures necessary for water importation if the resulting groundwater storage would be subject to recapture by others. The non-overlying user would counter that the state's constitutional or statutory requirement of maximum utilization of water resources will be severely undermined if the district is allowed to "lock up" the basin surplus without any demonstration of immediate need or injury if the appropriation of surplus were to occur.

There are no simple answers to this policy conundrum. While there may be instances in which the protection of public investment in imported water supplies is of paramount concern, the constitutional prohibition against waste and unreasonable use 134 would seem to control, at least in situations where the failure to capture basin surplus will result in waste through discharge to a non-usable source, and such discharge is not necessary to prevent other undesirable consequences. The more difficult question involves the rights of the non-overlying user to capture and use that increment of basin surplus that would exist prior to discharge and waste. Although the constitutional requirement of maximum utilization remains implicated, the practical effect of that requirement is difficult to predict absent a comprehensive assessment of the hydrologic, economic and legal aspects of a particular case.

B. Nature of the Recapture Right

The San Fernando decision defines the right to recapture artificial recharge as "an undivided right to a quantity of water in the ground reservoir equal to the net amount by which the reservoir is augmented by [imported water]." The "measure of the recapture right is thus the net amount of additional groundwater attributed to the imported supply, so that the storer bears the risk of loss."

^{133.} In California, this requirement is embodied in CAL. CONST. art. X, § 2.

^{134.} *Id*

^{135.} City of Los Angeles v. City of San Fernando, 537 P.2d 1250, 1296 (Cal. 1975).

^{136.} Gleason, supra note 54, at 645.

Current litigation, pending in California, places at issue the meaning and effect of these basic rules. 137

An important and unresolved issue is the extent to which native water rights may be impaired when stored imported waters are recaptured from the underground. San Fernando appears to subordinate the rights of private landowners to the rights of public agencies to recapture imported water stored underground. But the effect of this subordination is not yet known. For example, where an importing agency recaptures stored water through massive pumping from a well field that severely impacts neighboring pumpers through, for example, water level drawdown and inducement of migration of salts, is the injury non-compensable due to the paramount nature of the recapture right? Similarly, does an importing agency's paramount recapture right give it the authority to maintain water levels at a high level for the convenience of its recapture program, even though such high levels result in damage to neighboring landowners through liquefaction or other processes? These issues remain unresolved.

C. Scope of County Authority to Regulate Groundwater

In *Baldwin v. County of Tehama*,¹⁴⁰ the Third Appellate District held that a county ordinance that required a permit to extract groundwater for the purpose of use on land other than where the extraction occurs was not preempted by state law.¹⁴¹ In the wake of *Baldwin*, numerous California counties have adopted ordinances aimed at regulating the extraction and use of groundwater.¹⁴²

The facts of *Baldwin* were rather unique, however, and important questions remain as to the scope of the decision. In *Baldwin*, the plaintiffs owned land in Tehama County and wanted to extract groundwater for use in irrigating land in two neighboring counties.¹⁴³ Thus, the decision in *Baldwin* does not address, at least directly, the issue of whether county regulation of a groundwater

^{137.} See supra text accompanying note 80 (discussing the Santa Maria Litigation). One of the central issues in the Santa Maria Litigation is whether, in the context of a groundwater basin that is spilling continuously to the ocean, imported water stored underground is deemed the first to spill.

^{138.} San Fernando, 537 P.2d at 1314.

^{139.} An interesting dispute has arisen in California between Water Replenishment Districts, which operate an artificial recharge project in an adjudicated basin in Los Angeles County, and the California Department of Transportation (Caltrans), which constructed the I-105 freeway near Los Angeles International Airport. In 1995, shortly after the opening of the freeway, Caltrans suffered damage to the freeway as a result of the intrusion of groundwater from the basins in which recharge activities are ongoing. Caltrans has incurred costs amounting to over \$60 million for repairs to the freeway, including replacement of a sub-surface drainage system, and installation and operation of de-watering wells. Virginia Ellis, Century Freeway: Caltrans' 'Dirty Little Secret'; Built Too Close to the Water Table, Part of the I-105 is Threatened With Collapse. Agency's Multimillion-Dollar Repair Efforts Have Been Hidden From Legislature, Public, L.A. TIMES, Mar. 28, 1999, at A1.

^{140. 36} Cal. Rptr. 2d 886 (Ct. App. 1994).

^{141.} Id. at 888.

^{142.} DWR BULLETIN 118, supra note 3, at 36.

^{143.} Baldwin, 36 Cal. Rptr. at 889.

substitution water transfer—in which groundwater is pumped in substitution for surface water and the surface water is conveyed for sale to a transferee—is subject to county regulation or whether such transfers are preempted by statutes granting authority over surface water transfers to the SWRCB. Because groundwater substitution transfers are likely to be an important element of water resource management in California in the future, resolution of this issue is critical to the further development of active water markets within the State.

A comprehensive analysis of the issue of preemption in the context of groundwater substitution transfers is beyond the scope of this Article. In the author's view, substantial and difficult preemption questions are raised when a county purports to regulate a water transfer that is subject to regulation by the SWRCB. Moreover, aside from the issue of preemption, there are important policy issues raised by county regulation in this area. In the author's experience, most California counties are ill-equipped, both from the standpoint of funding and expertise, to engage in the regulation of groundwater substitution transfers. From a policy standpoint, it would be preferable to have local public entities that are engaged in groundwater regulation under Assembly Bill 3030 or other statutes take the lead role in the review of technical elements of groundwater substitution transfers.

IV. CONCLUSION

The Commission's efforts in the field of groundwater achieved few concrete results principally due to its failure to work within the established water rights framework. Future efforts to promote the effective management of California's critical groundwater resources must acknowledge, and work within, this established legal framework. The considerable achievements of many local public entities in the field of groundwater management can provide an important platform for future success in this arena.