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Managing California's Groundwater: Issues and Challenges

California Groundwater Law: An Overview

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> "It must seem surprising to people elsewhere that California, unlike other western states, continues to treat surface water and groundwater under separate and distinct legal regimes, even though everyone today acknowledges that water comprises a continuum through which the water moves wherever gravity takes it."
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> --Joe Sax, *We Don't Do Groundwater: A Morsel of California Legal History,* 6 U. Denver L. Rev. 269 (2003)

Chair Pavley and Members of the Committee:

Thank you for the opportunity to testify today. I am honored to do so.

I have been asked to provide the Committee with a brief overview of current California law relating to the state's groundwater resources. Those resources are of critical importance to California's people and resources: recent accounts indicate that in a "normal" water year, approximately 35% of California's water supplies come from groundwater. In periods of drought such as those California is currently experiencing, that annual percentage can exceed 40% statewide and up to 60% or more in some regions of the state. Those same accounts report that some 85% of California residents rely on groundwater for at least a portion of their drinking water. (Other Committee witnesses and source materials recount the environmental, economic and geological consequences of that heavy reliance on groundwater extraction in California, and I will not repeat that evidence here.)

As the late, distinguished water and natural resource Professor Joe Sax and many other water law authorities have noted, California groundwater is fundamentally different, in two distinct ways. First, California is the only remaining state in the American West that does not regulate its groundwater resources in any comprehensive and systematic fashion. Second, the California legal system's relatively laissez faire approach to its groundwater resources stands in stark contrast to the state's relatively comprehensive regulation of its *surface* water resources: the latter are extensively regulated through an administrative permit system that has been in place for nearly a century.

<u>There Are Three Categories of Water Under California Law</u>

For over a century, California statutes and water law generally have recognized three distinct categories of water resources: surface water (that derived from surface lakes, rivers and similar waterways); "subterranean streams flowing through known and

definite channels"[1]; and other groundwater resources, generally referred to as "percolating groundwater."

It is generally conceded that the above-quoted terms bear little, if any, relationship to geological realities. To the contrary, the legal distinction between "subterranean streams" and "percolating groundwater" is, according to Professor Sax, "fundamentally at odds with science's understanding of water's movement."[2]

Nevertheless, that distinction remains of critical importance to California's water rights system, even as it is spurned by hydrologists. That is because California regulators have long administered a detailed system of permitting and regulation of diversions of both surface water and related "subterranean streams." Percolating groundwater, by contrast, is not subject to statewide permitting and regulation. Indeed, current Water Code section 1221 expressly precludes California regulators from creating such a program.[3]

Statewide "Regulation" of California Groundwater

Accordingly, California has in place no statewide system that regulates the drilling of wells and the pumping of percolating groundwater. Most property owners of land overlying a groundwater basin can simply drill and pump groundwater without state permission.

To the extent that there is any ongoing government "regulation" and "management" of groundwater in California, those activities are undertaken by local governments and special districts, as summarized below. Additionally, most legal control over groundwater pumping in California is currently left to state courts and individual adjudications, as also discussed below.

This is not to say that state regulators lack any authority to control or limit groundwater pumping in California. While Water Code sections 1220 and 1221 preclude the Water Board's permitting jurisdiction over groundwater, those provisions do not limit other sources of authority the Board has to regulate uses of groundwater. At least two potential sources of such authority exist.

The first is Article X, section 2 of the California Constitution, which prohibits the waste, unreasonable use, unreasonable method of use and unreasonable method of diversion of California water. While groundwater is not specifically referenced in

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[1] California Water Code § 1200.
[2] J. Sax, *We Don't Do Groundwater: A Morsel of California Legal History*, 6 U. Denver L. Rev. 269, 273 (2003).
[3] Water Code § 1221 provides, "[The legislatively-mandated system of appropriative water rights licenses and permits] shall not be construed to authorize the [State Water Resources Control B]oard to regulate groundwater..."

this constitutional provision,[4] there is little doubt that Article X, section 2 encompasses groundwater resources.[5] There is similarly no reasonable doubt that the Board, acting through California's Attorney General, can institute litigation to control or halt groundwater use that constitutes waste, unreasonable use, method of use or unreasonable method of diversion under Article X, section 2. Inasmuch as the Board and the courts have concurrent jurisdiction to adjudicate water rights in California,[6] the Board has similar constitutional and statutory authority to initiate administrative proceedings to address perceived violations of Article X, section 2 relating to the state's groundwater resources.[7]

The second principle under which the state can assert control over percolating groundwater resources is California's public trust doctrine. Under that foundational principle of natural resources law, certain resources are held in a special legal status—in "trust"—for present and future generations of Californians. The public trust doctrine further provides that government agency "trustees" responsible for overseeing those trust resources have an affirmative obligation to manage and preserve them for the long-term benefit of California's environment and residents.

In its landmark *National Audubon Society v. Superior Court* decision,[8] the California Supreme Court ruled that the state's water resources are one such natural resource encumbered by the public trust; that the State Water Resources Control Board serves as trustee over those resources when it administers California's water rights system; and that the Board has a "continuing duty" to evaluate existing water rights and to adjust them when circumstances warrant.

National Audubon and subsequent public trust decisions have specifically applied the doctrine to the state's surface waters. However, strong arguments support the view that the public trust is similarly applicable to state groundwater. Longstanding Water Code provisions indicate that the people of the State of California have a strong public interest in preserving the integrity of groundwater basins,[9] and 2009 amendments to the California Water Code declare that, along with Article X, section 2, "the public trust doctrine shall be the foundation of state water management policy"[10]--broad statutory language that presumably encompasses groundwater.

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[4] The operative reference in Article X, section 2 is simply to "the water resources of the state."
[5] Peabody v. Vallejo (1935) 2 Cal.2d 351, 370-372.
[6] National Audubon Society v. Superior Court (1983) 33 Cal.3d 419, 451.
[7] See Water Code § 275.
[8] 33 Cal.3d 419 (1983).
[9] See Water Code § 12922 ("It is hereby declared that the people of the State have a primary interest in the correction and prevention of irreparable damage to, or impaired use of, the ground water basins of this State caused by critical conditions of overdraft, depletion, sea water intrusion or degraded water quality."); see also, Water Code §§ 102, 104, 105.
[10] Water Code § 85023.

Other states, including Vermont and Hawaii, have expressly applied the public trust doctrine to their groundwater resources, either via legislation or court decision.

(Unlike the applicability of Article X, Section 2 to California surface waters, some parties dispute the applicability of the public trust doctrine to the state's groundwater resources. Litigation is currently pending in which the applicability of the public trust doctrine to groundwater having a hydrological connection to surface river flows is being contested; the State Water Board, a party to that litigation, takes the position that such groundwater resources are in fact subject to the public trust doctrine.[11])

The Legislature has codified the same principles embodied in Article X, section 2, and the public trust doctrine in express provisions of California's Water Code. Several of those statutory provisions make specific reference to groundwater.[12]

It is noteworthy that the Board's authority over groundwater under Article X, section 2, and the public trust doctrine exists more on paper than it does in practice. The Board has rarely if ever asserted this authority in the past, at least in the absence of explicit legislative or judicial direction that it do so. Board representatives have recently attributed this lack of activity under Article X, section 2 and the public trust doctrine to a lack of necessary staff and funding. The Governor is currently seeking a budget augmentation for FY 2014-15 to address that perceived deficiency.

Finally, it is well-settled that the Board may use its authority to protect groundwater resources and uses when it exercises jurisdiction over permit applications to appropriate surface waters.[13] The Board similarly has explicit authority to condition surface stream appropriation permits to protect third-party groundwater rights.[14]

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[11] Environmental Law Foundation, et al. v. County of Siskiyou, et al., Sacramento County Superior Court No. 34-2010-80000583-CU-WM-GDS. In the interest of full disclosure, the author and presenter of this testimony currently serves as co-counsel for petitioners Environmental Law Foundation, et al., in that litigation.

[12] See, e.g., Water Code §§ 100, 102, 104 (referencing groundwater), 105 (same), 275 and 85023.

[13] Water Code §§ 1253, 1255, 1257.

[14] J. Sax, "We Don't Do Groundwater: A Morsel of California Legal History," 6 U. Denver L. Rev. 269, 315 (2003).

The Lack of Express State Authority to Monitor Groundwater Pumping

> "We are seriously lacking in the data and information necessary for planned utilization of groundwater."
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> --Harvey O. Banks, Director, California Department of Water Resources (1957)

In addition to the absence of any statewide permit system governing groundwater pumping, California law fails as a general proposition to require those who pump state groundwater to measure and report the amounts of water they extract from groundwater basins. While some local jurisdictions require such reporting in various regions, neither the State Water Resources Control Board nor any other state agency has express statutory authority to require the compilation, reporting or maintenance of groundwater pumping data on a statewide basis.

In recent years, however, some modest efforts have been made to begin to address the issue of statewide data reporting concerning California groundwater. In 2009, for example, the Legislature enacted legislation requiring that local agencies develop and maintain records of groundwater basin elevations throughout the state—as opposed to amounts of water extracted from individual groundwater wells. To the extent that local districts are unable or unwilling to develop and maintain the required groundwater elevation information, the California Department of Water Resources (DWR) is directed to perform the groundwater elevation monitoring functions. The same legislation directs DWR to maintain the groundwater elevation data base on a statewide basis.[15]

Over the past half-century, the Legislature has enacted certain laws requiring that state regulators adopt groundwater well standards. Those standards, however, focus primarily on groundwater well construction and the maintenance of subsurface water quality rather than quantification of groundwater extractions.[16]

Significantly, the Legislature in the 1950's adopted legislation requiring groundwater pumpers in four Southern California counties—Riverside, San Bernardino, Los Angeles and Ventura—to file annual "Notices of Extraction and Diversion of Water" with the State Water Resources Control Board.[17] Those notices include such information as the location of wells and the amount of water pumped from each of them. Over the years, there have been several attempts to expand the coverage of

[15] SB 6 (7th Ex. Sess.) (Steinberg), codified as Water Code § 10920 et seq.
[16] See discussion in A. Schneider, *Groundwater Rights in California,* Governor's Commission to Review California Water Rights Law (1977) at pp.78-84.
[17] Water Code § 5000 *et seq.*

these "Recordation Act" requirements beyond the four enumerated counties, but those efforts have proven unsuccessful.[18]

With these exceptions, however, California law does not provide express authority for the State Water Resources Control Board or other state agencies to require the monitoring and reporting of information regarding the volume of groundwater pumping from individual wells in the State of California. It seems unlikely that any contemplated system of statewide groundwater regulation could prove successful in the absence of parallel legislation requiring the comprehensive reporting, collection and maintenance of such data.

In stark contrast, state statutes and authority delegated to state regulators under the federal Clean Water Act afford state regulators extensive legislative and regulatory authority to address groundwater pollution and groundwater basin contamination remediation efforts. An examination of these water quality provisions are beyond the scope of this testimony.[19]

Local & Regional Regulation of Groundwater Resources in California

At present, there thus exists no statewide system of groundwater management, data collection or permitting. To date, the Legislature has instead left management and regulation of groundwater to local and regional control. That has resulting in a patchwork of local ordinances, regulations and management plans.

A number of local governments and special districts in California have in fact adopted ordinances and management plans addressing—to widely varying degrees--groundwater resources within their respective jurisdictions. In an important 1994 decision, *Baldwin v. County of Tehama*, the California Court of Appeal upheld a county's authority to regulate pumping and use of groundwater under its delegated police powers, rejecting a landowner's challenge that state law preempts and precludes local regulation of groundwater.[20]

A majority of California's 58 counties have adopted at least some sort of local groundwater ordinances. Some of these measures, particularly those enacted in Southern California, have considerable substance. Several are the product of "groundwater adjudications" by the local courts, a procedure discussed in more detail in the following section. Other local ordinances have been facilitated by the groundwater reporting requirements contained in the above-described "Recordation

[18] A. Schneider, supra n. 16, at pp.81-82.
[19] For a general discussion of this topic, see K. Manaster & D. Selmi, 2 *California Environmental Law* (Matthew Bender 2013) at Chapters 32-33.
[20] 31 Cal.App.4th 166.

Act" statutes applicable to Los Angeles, Riverside, San Bernardino and Ventura Counties.

An example of such a "muscular" local groundwater ordinance is one enacted by Imperial County. That measure requires prospective groundwater pumpers within Imperial County to seek and obtain conditional use permits before drilling new groundwater wells or re-drilling previously inactive wells. In one reported case, when Imperial County officials granted such a well permit but conditioned it upon a maximum groundwater extraction level, the property owner sued, claiming the limits imposed by the ordinance resulted in an unconstitutional "taking" of its property requiring monetary compensation. The Court of Appeal rejected that challenge and upheld the groundwater permit limits imposed by the county under the ordinance.[21]

By contrast, most county groundwater ordinances enacted and currently in place in Northern and Central California are far narrower in scope. The majority focus exclusively on the potential export of groundwater extracted within a county to other regions of the state via water transfers. These ordinances seek to limit or prohibit such transfers, in part to implement so-called "area of origin" rights claimed by the affected counties under state statutes.[22]

In 1992, the Legislature enacted legislation, "AB 3030," affirmatively authorizing—but not requiring--local water management agencies to adopt "groundwater management plans."[23] Under this legislation, local groundwater management plans can include provisions relating to control of salt water intrusion; regulation of the migration of contaminated groundwater; mitigation of conditions of groundwater overdraft; and replenishment of groundwater extracted by water producers. However, the statute does not permit local agencies to make binding determinations of the water rights claimed by any person or entity. Nor does it authorize local agencies to limit or suspend groundwater extractions unless they first determine that groundwater replenishment programs or other alternative sources of groundwater have proven infeasible.

The Important Role of the Courts in Managing California Groundwater Resources[24]

Most of California's groundwater law has been developed by the courts, rather than by the Legislature or state regulators.

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[21] Allegretti & Co. v. County of Imperial (2006) 42 Cal. Rptr. 3d 122.
[22] See, e.g., Water Code § 1215 *et seq.*
[23] Stats. 1992, ch. 947, codified as Water Code § 10752 *et seq.*
[24] Much of the discussion in this section is derived from A. Littleworth & E. Garner, *California Water II* (Solano Press 2007).

The judiciary has played a relatively larger role in controlling groundwater resources in California than the courts have played with respect to surface and subterranean stream water resources. This is due, as noted above, to the lack of a statewide permitting and monitoring system for groundwater under current California law, coupled with the spotty and varying nature of local government/special district efforts to regulate or manage groundwater .

As a result, most of the current "law" relating to California groundwater is to be found either in published decisions of the appellate courts or trial court decrees resolving respective legal claims among groundwater rights claimants. Those court decisions resolve groundwater disputes between particular individuals, companies or groups, rather than taking the form of decrees binding large groups of groundwater pumpers or users on a statewide basis.

Over the years, California courts have ruled that rights to the use of groundwater fall within one of three categories: overlying rights, appropriative rights and prescriptive rights. An overlying right is associated with land ownership and the use of the water on the land overlying the groundwater basin from which the water was pumped. An appropriative groundwater right, by contrast, takes the water off the land, or is the right of a public agency or public utility to pump water to supply its customers. A prescriptive right is established by an individual's adverse use of groundwater against prior groundwater rights holders.

Generally, an owner of land overlying a groundwater basin in California has an "overlying right" to drill one or more wells and pump water from the basin for use on his or her land. As noted above, no state permit is required to drill a well and pump groundwater unless it is part of a subterranean stream. Early in the state's history, it was assumed that groundwater pumping was a reasonable use of water, even if such pumping resulted in harm to another landowner seeking to exploit the same groundwater resource.

That notion was rejected by the California Supreme Court in the landmark 1903 case *Katz v. Walkinshaw*.[25] In *Katz*, the Court ruled that the doctrine of "reasonable use" should apply to percolating groundwater resources.

From *Katz*, the doctrine of correlative groundwater rights developed in California—the governing rule for overlying uses of groundwater. In groundwater disputes among overlying landowners, all have equal rights. If the supply of groundwater is insufficient for all of their needs, each user is entitled to a fair and just proportion of the water.[26] There are no senior overlying users who gain priority by being the first

[25] 141 Cal. 116.
[26] Katz, 141 Cal. 116, 134, 136; City of Barstow v. Mojave Water Agency (2000) 23 Cal.4th 1224, 1241.

to pump water from a groundwater basin; and overlying rights to use groundwater are not lost by nonuse.[27] Any groundwater that is surplus to the needs of overlying users is available for appropriation for uses off the land; critically, however groundwater needed on overlying lands has priority over the appropriation of groundwater for offsite uses.[28]

Unlike the comprehensive state permit system governing appropriative water rights for surface waters, there is no statutory permit system for appropriating percolating groundwater.[29] Therefore, an appropriative right to groundwater is acquired merely by taking the water for non-overlying use, or for use in a municipal water system. (Public use of groundwater is generally not an overlying use; municipalities, for example, usually have appropriative rights to groundwater.)

As noted, appropriative rights to groundwater apply only to surplus water not needed to satisfy overlying users. To resolve disputes among competing appropriative groundwater rights holders, the courts have borrowed the "first in time, first in right" doctrine from stream system appropriations law. However, priorities among appropriators are difficult to establish in a groundwater basin that is overdrafted, for numerous reasons.

Like other water rights, groundwater rights may be obtained by adverse use, known in the legal system as "prescription." The taking of water rights by prescription, to be recognized by the courts, must be hostile and adverse to a prior groundwater rights holder, and must be actual, open and notorious, continuous and uninterrupted for a period of at least five years, under a claim of right. Prescription in groundwater basins can occur when any surplus groundwater has been exhausted and the "safe yield" of the basin is being exceeded. In recent years, however, courts have held that overlying users retain their groundwater rights against potential prescription by virtue of their own groundwater pumping.[30]

The California Supreme Court has grappled over the years with the vexing problem of priorities between and among overlying and appropriative groundwater users in a long-overdrafted basin. These disputes are especially intractable when they involve urban areas and public agencies or public utilities serving thousands or even millions of urban users.[31]

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[27] Tehachapi-Cummings County Water District v. Armstrong (1975) 49 Cal.App.3d 992, 1001; Wright v. Goleta Water District (1985) 174 Cal.App.3d 74.
[28] City of Barstow v. Mojave Water Agency, 23 Cal.4th 1224, 1241.
[29] Water Code § 1200 *et seq.*; Pasadena v. Alhambra (1949) 33 Cal.2d 908.
[30] Los Angeles v. San Fernando (1975) 14 Cal.3d 199, 293 fn. 101.
[31] See, e.g., Pasadena v. Alhambra (1949) 33 Cal.2d 908; Los Angeles v. San Fernando (1975) 14 Cal.3d 199; City of Barstow v. Mojave Water Agency (2000) 23 Cal.4th 1224.

Sorting out the prescriptive claims to California groundwater asserted by overlying landowners, appropriators and other claimants is left primarily to the courts. This is generally accomplished by individual claimants filing a lawsuit, so that the competing groundwater claims can be resolved in litigation.

California law provides three alternative procedures by which groundwater rights under varying conditions may be adjudicated. The first is a civil action filed in state or federal court. The second is a "reference," by which a court refers a particular groundwater dispute to the State Water Resources Control Board for administrative resolution, pursuant to legislative authorization. (Under state statute, an initial civil filing in court is required, after which the court—either on its own motion or at the request of the parties—can choose to refer the dispute to the Board.[32]) Third and finally, the State Water Resources Control Board is authorized to itself file an action in state court to restrict pumping "to prevent destruction of or irreparable injury to" groundwater quality under Water Code section 2100 *et seq.* (This latter procedure has seldom if ever been invoked by the Board.)

Groundwater adjudications are generally conducted on a decentralized, groundwater basin-by-basin basis. These proceedings are frequently criticized as being lengthy, complicated and expensive for all concerned. Such adjudications become especially complex and protracted when hundreds or even thousands of individual claimants to groundwater from a particular basin are involved. And they are exceedingly fact-specific, so it is difficult to generalize or apply groundwater adjudication rulings and principles in one region of the state to groundwater disputes in another. At the same time, once concluded, these groundwater adjudications are able to resolve multiparty, complex and seemingly intractable groundwater disputes on a comprehensive, long-term basis—a result not otherwise achievable under existing law.

Under California law, courts have not only the authority but also the obligation to investigate (and, if necessary, devise) a "physical solution" to groundwater disputes in order to further Article X, section 2's mandate that state water resources be put to beneficial use "to the fullest extent to which they are capable." Sometimes, the parties to such a court-supervised groundwater adjudication are able to negotiate such a physical solution, which is designed to restore an overdrafted groundwater basin, allocate finite groundwater resources among multiple users on an equitable basis, and maintain a safe yield from the basin on a long-term basis.

In some instances, final groundwater adjudications by the courts include among their terms the creation of watermasters or new water agencies to manage a particular

[32] See Water Code § 2000 *et seq.*

groundwater basin (or sub-basin), consistent with the terms of the judicial adjudication.[33]

Conclusion

> "It's a myth that groundwater is separate from surface water and also a myth that it's difficult to legally integrate the two. People say it's too complicated, but Australia has figured it out; virtually every other state also has figured out how to do this....The law always catches up to science but we ultimately do learn. In fact we have to learn; we can't have laws that are inconsistent with the science itself."
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> --Professor Barton Thompson, Stanford Law School

Despite the fact that water scientists and engineers overwhelmingly consider surface and groundwater resources to be interconnected and part of a single, inextricably-related system, California water law treats surface waters and groundwater in fundamentally differently ways.

Standing in stark contrast to California's comprehensive system of regulating its surface waters and administering surface water rights through a detailed permit system, California's groundwater resources are essentially unregulated at the state level. Individual users can generally pump groundwater without serious state oversight. Historically, the somewhat limited legal remedies that state water regulators do possess over groundwater have rarely been exercised.

In the absence of a comprehensive state system of groundwater monitoring, management, regulation and permitting, local and regional agencies have legal authority to fill the void. Only a handful of counties or water agencies—most of them in Southern California—do so, however. The majority of local groundwater ordinances in the state simply impose limits on the ability of groundwater pumpers within their jurisdictions to move the groundwater out of the local area via water transfers.

As a result, most groundwater law in the State of California is, by default, created by the courts. This is done in the form of ad hoc adjudications of individual groundwater disputes, which are often cumbersome, time-consuming and expensive to resolve. Sometimes, however, those groundwater adjudications culminate in

[33] See, e.g., Pasadena v. Alhambra (1949) 33 Cal.2d 908, 916, 935 (creating Watermaster to allocate and manage proportionate shares of water from Raymond groundwater basin among users in Pasadena area, as determined in adjudication and enforceable by court order).

appellate court decisions that establish important legal precedents having statewide significance.

Sources

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