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Not All Water Stored Underground is Groundwater: Aquifer Privatization and California's 2014 Groundwater Sustainable Management Act

Adam Keats
Center for Food Safety

Chelsea Tu
Center for Biological Diversity

NOT ALL WATER STORED UNDERGROUND IS GROUNDWATER: AQUIFER PRIVATIZATION AND CALIFORNIA'S 2014 GROUNDWATER SUSTAINABLE MANAGEMENT ACT

*ADAM KEATS**
*CHELSEA TU***

I. INTRODUCTION

California's Sustainable Groundwater Management Act of 2014 ("Act") has been heralded as a "once-in-a-century achievement."[1] While some have criticized the Act's relatively modest regulatory goals, long compliance deadlines, and weak enforcement powers,[2] others have hailed the mere accomplishment of the state passing some form of

*Adam Keats is a senior counsel at the Center for Food Safety, where he focuses on water privatization issues. He is lead counsel on several major water infrastructure lawsuits, including *Central Delta Water Agency v. Department of Water Resources* (3d Appellate District Case No. C078249), concerning the Monterey Amendments to the State Water Project and the privatization of the Kern Water Bank, and *Center for Biological Diversity v. County of San Bernardino* (4th Appellate District Case No. G051058), concerning the Cadiz water mining project. He received his J.D. from UC Davis School of Law.

**Chelsea Tu is a staff attorney at the Center for Biological Diversity. She works on limiting land development and preserving freshwater resources for the public and endangered species. Ms. Tu received her J.D. from the American University Washington College of Law with a focus on Environmental Law and holds a Bachelor of Science in Environmental Sciences from the University of California at Berkeley.

[1] *See* Quinn, Timothy and Snow, Lester, *Viewpoints: Groundwater legislation marks turning point to achieve reliable water supply*, THE SACRAMENTO BEE (Sept. 27, 2011), http://www.sacbee.com/latest-news/article2613371.html; Sustainable Groundwater Management Act, CAL. WATER CODE § 10720 et seq. (Westlaw 2015)[hereinafter "2014 Act"].

[2] Jeremy Miller, *California's Sweeping New Groundwater* Regulations, HCN.ORG (Nov. 10, 2014), http://www.hcn.org/issues/46.19/californias-sweeping-new-groundwater-regulations; Rob DiPerna, *Groundwater Legislation is Not Strong Enough* (Sept. 11, 2014), http://www.wildcalifornia.org/blog/groundwater-legislation-is-not-strong-enough/; *see also* Bettina Boxall, *Bills Regulating State's Groundwater Not an Instant Fix for Aquifers*, LATIMES.COM (Sept. 8, 2014), http://www.latimes.com/science/la-me-groundwater-20140908-story.html.

groundwater legislation[3] and celebrated the Act's stated goals of protecting existing water rights and local control of groundwater supplies.[4] Some groundwater basins may prove to be well-suited for the regulatory scheme imposed by the Act,[5] but equitable regulation of other groundwater basins may be challenged by current and future efforts to privatize these groundwater resources. Specifically, several major basins, including the Paso Robles and the Kern, are threatened by the development of water banking operations which function to replace groundwater resources with privatized, banked water that would undermine the public interest – a threat that the Sustainable Groundwater Management Act may be promoting.

II. Groundwater Regulation in California – Local Control?

While California's groundwater has historically been mostly unregulated, there have been exceptions, primarily through court adjudication of groundwater rights for specific basins. Twenty-three groundwater basins, mostly in southern California, have court-ordered limits on pumping and court-appointed water-masters to manage the basins.[6] The Sustainable Groundwater Management Act of 2014 does not change this basin-by-basin (or "local") approach to regulation, as it seeks to accomplish its goal of making California's groundwater resources more sustainable by empowering local agencies to regulate their local groundwater basins.[7]

Under the Act, any local agency or combination of local agencies overlying a groundwater basin may now elect to become or form a

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[3] Lisa Lien-Mager, *ACWA Applauds Passage of Groundwater Legislation*, California Farm Bureau Federation (Aug. 29, 2014), http://www.cfbf.com/CFBF/CFBFNews/NewsRelease/2014/Groundwater_bills_will_cause_harm__farm_leader_says.aspx.

[4] Office of the Governor, Signing Message (Sept. 16, 2014), http://gov.ca.gov/docs/Groundwater_Signing_Message.pdf; s*ee also* 2014 Act, Uncodified Legislative Findings (a)(6) ("Groundwater resources are most effectively managed at the local or regional level"); *see also* Cal. Water Code §113 ("Sustainable groundwater management is best achieved locally through the development, implementation, and updating of plans and programs based on the best available science.")

[5] For example, groundwater in Glenn County is managed jointly by 17 sub-areas that have adopted and operate by mutually agreed upon basin management objectives. *See Glenn County Gets Ready for Action on Groundwater Management*, ChicoER.com (Feb. 28, 2015), http://www.chicoer.com/general-news/20150228/glenn-county-gets-ready-for-action-on-groundwater-management; *Development of a Locally Driven Groundwater Management Plan*, County of Glenn, Water Advisory Committee, http://www.glenncountywater.org/management_plan.aspx; Allan Fulton, et al., *Possible Approaches to Groundwater Management in the Northern Sacramento Valley*, Univ. of Cal. Agric. & Nat'l Res.Newsletter (Aug. 2003), http://www.glenncountywater.org/documents/PossibleApproaches-Aug03.pdf.

[6] *Groundwater Management*, Groundwater Information Center (California Dept. of Water Resources), http://www.water.ca.gov/groundwater/groundwater_management/index.cfm.

[7] See 2014 Act, Uncodified Legislative Findings (a)(6); Cal. Water Code § 10723.

Groundwater Sustainability Agency (GSA), with certain specific agencies designated as the exclusive agencies within their boundaries, unless they choose to opt out.[8] The Act confers significant regulatory powers on the local GSAs, including the power to assess fees on users,[9] impose monitoring and reporting of groundwater pumping,[10] and impose controls and limits on groundwater pumping.[11] GSAs are required to create and implement Groundwater Sustainability Plans (GSPs) for certain high- and medium-priority basins in order to accomplish the goals of the Act.[12] The state Department of Water Resources is tasked with evaluating and assessing the GSAs and GSPs,[13] while the State Water Resources Control Board is empowered to step in when no GSA has been established for a basin or when a GSA fails to meet its obligations.[14]

Ensuring local regulation of groundwater resources was likely essential to the Act's passage, and it makes some sense given the wide variations of water use, needs, and geography across the state. But "local control" can have different meanings and very different consequences, depending on which agency ultimately assumes the GSA role for a particular groundwater basin. While many water agencies in California serve a wide variety of users and operate democratically, other water agencies are completely or largely controlled by a few users, or even just one, making them less like regulatory agencies and more like functional extensions of their particular members.[15]

The best known water bank in California is the Kern Water Bank, a 19,990 acre groundwater reservoir under Bakersfield that has the capacity to store 1.5 million acre-feet of water.[16] Originally owned and devel-

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[8] CAL. WATER CODE §10723(a), (c)(1), (c)(2).

[9] CAL. WATER CODE § 10725.4(a)(3).

[10] CAL. WATER CODE §§ 10725.6 and 10725.8.

[11] CAL. WATER CODE § 10726.4(a)(1) and (2).

[12] CAL. WATER CODE § 10727(a).

[13] CAL. WATER CODE § 10733.

[14] CAL. WATER CODE § 10735.2.

[15] *See Salyer Land Co v. Tulare Water Dist.*, 410 U.S. 719 (1973) (finding because a water storage district does not exercise normal governmental authority, and its actions disproportionately affect landowners because the economic burden of its operations is confined to landowners, it is not a denial of equal protection to withhold the right of franchise from those who do not own land); *but see Choudhry v. Free*, 17 Cal. 3d 660, 668 (1976) (distinguishing facts from *Salyer* since residents of the Imperial Irrigation District rely on the district for all their water and power needs, about two-thirds of the county's residents are from urban communities, and only half of these own their own homes; thus concluding that CAL. WATER CODE § 21100's limitation on the district's board member eligibility is "unconstitutional as applied to real parties in interest on the ground that it deprives both candidates and voters in Imperial Irrigation District of equal protection of the laws in violation of the United States Constitution and the California Constitution.").

[16] WATER HEIST: HOW CORPORATIONS ARE CASHING IN ON CALIFORNIA'S WATER, PUBLIC CITIZEN 7 (Dec. 2003), https://www.citizen.org/documents/Water_Heist_lo-res.pdf; *see also Kern Water Bank Authority FAQ,* http://www.kwb.org/index.cfm/fuseaction/Pages.Page/id/352#faq_13.

oped by the Department of Water Resources, the water bank was transferred to private control through the Monterey Agreement in 1995.[17] The Kern Water Bank is now managed by a joint powers authority composed of several water districts and one private company, Westside Mutual Water Company.[18] Westside Mutual Water Company is a holding of Paramount Farming Company, which is owned by Lynda and Stewart Resnick.[19] Through Paramount Farming Company and Westside Mutual Water Company, the Resnicks own or control a majority (approximately 59 percent) of the total shares of the Kern Water Bank.[20] Another major interest in the bank is the large agribusiness and real estate interest, Tejon Ranch Company which completely controls the Tejon-Castac Water District, a member of the joint powers authority.[21]

In recent years, water districts and water users near the Kern Water Bank have complained about the bank's operation, alleging that it was causing their wells to go dry.[22] In 2010, several lawsuits were filed over the transfer of the bank from the state to the joint powers authority, including a suit by neighboring water districts.[23] In 2014, Judge Frawley of the Superior Court of California for the County of Sacramento held that environmental review regarding the Kern Water Bank failed to adequately analyze the potential environmental impacts of the transfer of the bank from state to local control and failed to adequately analyze the potential impacts of the use and operation of the bank as a water bank operation.[24] The Kern Water Bank serves as a cautionary tale of what may happen to the state's groundwater resources and the environment when a "locally" controlled, unregulated water bank is in fact run by powerful agribusinesses and developers.

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[17] Steven Mayer, *Judge Orders Review of Kern Water Bank*, BAKERSIFELD CALIFORNIAN (Oct. 3, 2014), http://www.bakersfieldcalifornian.com/local/x782595801/Judge-orders-review-of-Kern-Water-Bank. .

[18] WATER HEIST, 7-8.

[19] WATER HEIST, 7-8.

[20] *Id.*

[21] *Id.*

[22] *Lois Henry: More wells go dry in Rosedale*, THE BAKERSFIELD CALIFORNIAN (July 31, 2010), http://www.bakersfield.com/News/2010/08/01/LOIS-HENRY-More-wells-go-dry-in-Rosedale.html

[23] *Central Delta Water Agency, et al. v. California Department of Water Resources*, Sacramento County Superior Court Case No. 34-2010-80000561; *Rosedale-Rio Bravo Water Storage District, et al. v. California Department of Water Resources*, Sacramento County Superior Court Case No. 34-2010-80000703; *Central Delta Water Agency, et al. v. Kern County Water Agency*, Sacramento County Superior Court Case No. 34-2010-80000719.

[24] *Central Delta Water Agency, et al. v. California Department of Water Resources*, Sacramento County Superior Court Case No. 34-2010-80000561; *Rosedale-Rio Bravo Water Storage District, et al. v. California Department of Water Resources*, Sacramento County Superior Court Case No. 34-2010-80000703; *ruling available at*: http://www.cp-dr.com/sites/default/files/KWB%20ruling%20100214.pdf.

With local interests being given the responsibility – and the power – to regulate "their" local groundwater basins, the question is: how effective will local agencies be in meeting the sustainability goals of the Act, especially when long-term sustainability may directly conflict with a corporation's short-term profit goals? While the Act provides for some state oversight of local GSAs, without explicit benchmarks and defined metrics there is a good chance that this oversight will be ineffective. Ultimately, statewide groundwater regulation that relies on locally-controlled agencies, many of which, while ostensibly public agencies, are controlled or dominated by their private industry members, is not likely to succeed in achieving an equitable and sustainable groundwater management system on a statewide level.

The Act's lofty goals face another considerable hurdle: in addition to the privatization of water agencies, aquifers are increasingly becoming privatized through increased use and growth of water banking and water exchanges. Those who represent agricultural land developers and investors argue that water trading mechanisms will "increase flexibility and resilience in water management," and call on local, state, and federal governments to establish water banks and exchanges.[25] In fact, the Act appears to endorse water banking and exchanges by providing for blanket, discretionary authority of GSAs to "perform any acts necessary or proper to enable the agency to purchase, transfer, deliver, or exchange water or water rights of any type of any person [ ]."[26]

Water banks operate in the same aquifers that will become regulated under the Act, but with a critical difference: while the Act provides a GSA the broad authority to regulate a water basin, including the authority to orchestrate water exchanges and water banking, it does not address the fact that banked water remains governed by surface water rights and is not subject to traditional groundwater laws regarding percolated

[25] *See* Culp, P., et al., SHOPPING FOR WATER: HOW THE MARKET CAN MITIGATE WATER SHORTAGES IN THE AMERICAN WEST 7 (Oct. 2014), http://waterinthewest.stanford.edu/sites/default/files/market_mitigate_water_shortage_in_west_paper_glennon_final.pdf ("In order to preserve essential groundwater reserves, protect important environmental values, and support the development of effective markets, states should better regulate the use of groundwater by monitoring and limiting use to ensure sustainability, and by bringing groundwater under the umbrella of water trading opportunities . . . To facilitate and promote longer-term water transactions and transfers, state and local governments should establish essential market institutions, such as water banks and exchanges."). Mr. Culp, one of the authors of this policy paper, represents agricultural and other land development and investment interests. *See* Squire, Patton, Boggs, LLP, *Peter W. Culp* (Partner), http://www.squirepattonboggs.com/professionals/c/culp-peter-w.

[26] CAL. WATER CODE § 10726.2(d) (A GSA may "Perform any acts necessary or proper to enable the agency to purchase, transfer, deliver, or exchange water or water rights of any type with any person that may be necessary or proper to carry out any of the purposes of this part, including, but not limited to, providing surface water in exchange for a groundwater extractor's agreement to reduce or cease groundwater extractions.")

groundwater.[27] Thus, if a medium or highpriority groundwater basin becomes a multi-use basin that includes imported water rights, overlying rights, and interconnected instream rights, the relationship between those rights, and the priority given to each of the rights-holders, remains unresolved by the Act.[28] The responsibility for identifying and addressing the foreseeable legal and use conflicts between imported water, overlying use, and/or in-stream use where groundwater interconnects with surface water is thus left to the GSAs, or ultimately, the courts.

This potential conflict will become acute in the likely scenario where artificial recharge inhibits natural recharge so that it is difficult, if not impossible, to determine the relative quantity of each. Given explicit provisions in the Act and statewide policy favoring storing surface water underground,[29] it is not difficult to envision a privately-controlled GSA systematically drawing down percolated groundwater to create storage space in the basin, and then replenishing the basin with imported water,

[27] 2014 ACT, §10726.2 (A groundwater sustainability agency may "(b) Appropriate and acquire surface water or groundwater and surface water or groundwater rights, import surface water or groundwater into the agency, and conserve and store within or outside the agency that water for any purpose necessary or proper to carry out the provisions of this part, including, but not limited to, the spreading, storing, retaining, or percolating into the soil of the waters for subsequent use or in a manner consistent with the provisions of Section 10727.2."); 2014 ACT, § 10726.2 (providing that a groundwater sustainability agency has flexible authority to implement conjunctive use or storage programs, but that it "shall not alter another person's or agency's existing groundwater conjunctive use or storage program except upon a finding that the conjunctive use or storage program interferes with implementation of the agency's groundwater sustainability plan."; *see also* 2014 ACT, § 10720.5 (b) ("Nothing in this part, or in any groundwater management plan adopted pursuant to this part, determines or alters surface water rights or groundwater rights under common law or any provision of law that determines or grants surface water rights.").

[28] *See* CALIFORNIA WATER PLAN 2013 UPDATE, CHAPTER 9: CONJUNCTIVE MANAGEMENT AND GROUNDWATER STORAGE, 9-9 to 9-10 (2014), http://www.waterplan.water.ca.gov/docs/cwpu2013/Final/Vol3_Ch09_ConjMgmt-GW-Storage.pdf.

[29] 2014 ACT, § 10720.1(g) provides that it is the intent of the Legislature "[t]o increase groundwater storage and remove impediments to recharge"; GSAs need to manage groundwater basins without causing an "undesirable result," which would be triggered by one or more of several effects including "Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon . . ." and "Significant and unreasonable reduction of groundwater storage." 2014 ACT, § 10721(v) & (w). *See also* CALIFORNIA WATER PLAN 2013 UPDATE HIGHLIGHTS (OCT. 2014), http://www.waterplan.water.ca.gov/docs/cwpu2013/Final/00-Highlights_v24_WEB_Accessible_01-28-2015_FINAL.pdf (The California Water Plan "Roadmap for Action" includes the policy goal of "Expand[ing] Conjunctive Management of Multiple Supplies: Advance and expand conjunctive management of multiple water supply sources with existing and new surface and groundwater storage to prepare for future droughts, floods, and climate change."); CALIFORNIA WATER ACTION PLAN 14 (2014), http://resources.ca.gov/docs/california_water_action_plan/Final_California_Water_Action_Plan.pdf ("The administration will support a comprehensive approach to local and regional groundwater management by funding distributed groundwater storage projects that are identified in groundwater management plans and removing barriers to implementation.").

with little consideration of the ability for overlying users to access the basin or the long-term health of the surrounding ecosystem.

The Paso Robles Groundwater Basin is a prime example of a basin for which equitable groundwater management is threatened by private and water banking interests.

III. Privatization of the Paso Robles Groundwater Basin

The Paso Robles Groundwater Basin ("Paso Robles Basin") is a high priority basin[30] beneath more than 500,000 acres of land in northern San Luis Obispo County ("County").[31] Agriculture constitutes 68.6 percent of the total use of the Paso Robles Basin on average, and for agriculture and many other uses, groundwater is the sole source of water.[32] The San Luis Obispo County Board of Supervisors has declared that groundwater demand has met or exceeded the dependable supply of approximately 89,600 acre-feet per year in the Paso Robles Basin.[33] Data collected and analyzed from 1981 to 2011 indicate that groundwater pumping of the Paso Robles Basin is near or at perennial yield,[34] and the basin may be overdrafted in areas east and north of the City of Paso Robles.[35] Coincidentally, land use has changed dramatically in the region from dryland agriculture to irrigated agriculture and residential uses.[36] The number of acres designated for vineyard uses, for example,

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[30] *See* CASGEM Groundwater Basin Prioritization Results: South Central Region (June 2014), http://www.water.ca.gov/groundwater/casgem/pdfs/lists/SCRO_Priority_05262014.pdf.

[31] CASGEM Groundwater Basin Prioritization Results: South Central Region (June 2014), http://www.water.ca.gov/groundwater/casgem/pdfs/lists/SCRO_Priority_05262014.pdf; *see also* San Luis Obispo Board of Supervisors and Planning Commission, Resource Capacity Study: Water Supply in the Paso Robles Groundwater Basin 2 (Feb. 2011), http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/rcs.pdf (estimating the Basin to cover 505,000 acres) [hereinafter "2010 RCS"].

[32] Geoscience Support Services, Inc., Paso Robles Groundwater Basin Model Update 84 (Dec. 2014), http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/Computer%20Modeling/pdf/Final%20Report%20Text%20redacted.pdf [hereinafter 2014 Groundwater Report] (urban users make up 11.0%, rural users make up 2.5%, and small commercial users make up 1.9% of the water demand for the basin); Paso Robles Groundwater Basin Management Plan 34 (Mar. 2011), http://www.prcity.com/government/departments/publicworks/water/pdf/GBMP/plan/PasoBasin_FinalGMP.pdf.

[33] 2014 Groundwater Report ES-9.

[34] *Id*. at 1.

[35] San Luis Obispo Board of Supervisors and Planning Commission, Resource Capacity Study: Water Supply in the Paso Robles Groundwater Basin 4 (Feb. 2011), http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/rcs.pdf [hereinafter "2010 RCS"].

[36] Water in the West, Before the Well Runs Dry: Improving the Linkage Between Groundwater and Land Use Planning: Appendix A (Case Study 1: Paso Robles Aquifer, Northern San Luis Obispo County) 19-24 (2014), http://waterinthewest.stanford.edu/sites/default/files/Before%20The%20Well%20Runs%20Dry%20-%20Water%20in%20the%20West%20Stanford.pdf.

has almost tripled between 1997 and 2007.[37] While water use pressure has increased in the past two decades, it is unlikely that the entire basin is currently overdrafted.[38]

One prominent investor of vineyards in the Paso Robles Basin is Brodiaea, Inc., a company solely owned by Harvard Management Company.[39] Brodiaea's strategy is to invest "in natural resources by purchasing millions of dollars' worth of vineyard land in central California."[40] The company was estimated to have spent at least $61 million to purchase 10,176 acres in Santa Barbara and San Luis Obispo Counties.[41] In fact, Brodiaea currently owns over 14,600 acres in the Shandon-Carrizo area in San Luis Obispo County alone.[42] Another large investor in the area is Roll Vineyards, LLC, which purchased the 160-acre Justin Wineries in 2010 and the 742-acre Hardham Ranch in 2011, and currently owns at least 1,307 acres in the Paso Robles area.[43] Roll Vineyards is a subsidiary of The Wonderful Company, Inc., which is owned by Stewart and Lynda Resnick and is one of the country's largest privately owned agribusiness companies.[44] The opportunities to market

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[37] *Id*.

[38] For instance, the December 2013 draft version of the groundwater basin update concluded that "Noticeable declines occur in the confined portion of the aquifer but do not reflect a large volume of change in storage." However, this conclusion was omitted in the final version from Dec. 2014. *See Paso Robles Groundwater Model Update PowerPoint Presentation* (Dec. 2013), http://agenda.slocounty.ca.gov/agenda/sanluisobispo/2868/UFJHQiAyIC0gUHJlc2VudGF0aW9uLvVdhdGVyIEJhbGFuY2UgRXN0aW1hdGlvbi5wZGY=/12/n/22518.doc; *see also* 2014 GROUNDWATER REPORT, *supra* note 32.

[39] The Harvard Management Company was valued at $36.4 billion in 2014. *See* HARVARD MANAGEMENT COMPANY, INC., SEPTEMBER 2014 ANNUAL ENDOWMENT REPORT 1 (Sept. 2014), http://www.hmc.harvard.edu/docs/Final_Annual_Report_2014.pdf.

[40] Valdmanis, R., *Harvard Buys Up Water Rights in Drought-hit Wine Country*, REUTERS.COM (Jan. 22, 2015), http://www.reuters.com/article/2015/01/22/harvard-water-idUSL1N0V02Z320150122.

[41] Fritz, M., *Harvard Pushing Further Into Farm Sector with California Central Coast Vineyard Play*, FARMLANDINVESTORCENTER.COM (Mar. 14, 2014), *http://www.farmlandinvestorcenter.com/?p=722&option=com_wordpress&Itemid=171*; *Harvard Investors Buying Up Local Vineyards*, PASO ROBLES DAILY NEWS (Apr. 16, 2014), http://pasoroblesdailynews.com/harvard-investors-buying-local-vineyards/17896/.

[42] San Luis Obispo County Property Information Search, *http://assessor.slocounty.ca.gov/pisa/Search.aspx* (last visited Feb. 1, 2015).

[43] Blackburn, D., *Water Bankers Purchase Paso Robles' Hardham Ranch* (July 15, 2013), http://calcoastnews.com/2013/07/water-bankers-purchase-paso-robles-hardham-ranch/; Lam, J.O., *$21 Million for Justin Winery Land*, THE TRIBUNE (Apr. 19, 2011), http://www.sanluisobispo.com/welcome_page/?shf=/2011/04/19/1569266_21-million-for-justin-winery-land.html; San Luis Obispo County Property Information Search, *http://assessor.slocounty.ca.gov/pisa/Search.aspx* (last visited Feb. 1, 2015).

[44] *Wonderful Company Who We Are*, *http://www.wonderful.com/who-we-are* (Oct. .03, 2015); Berfield, S., *A Pistachio Farmer, Pom Wonderful, and the FTC*, BLOOMBERG NEWS (Nov. 11, 2010), http://www.bloomberg.com/bw/magazine/content/10_47/b4204068352545.htm (last visited March 17, 2015).

Paso Robles Basin water has also attracted the attention of Scott Slater, a well known water rights attorney and President of Cadiz, Inc. (which is developing plans to store water in the aquifer underneath the Mojave Desert). [45]

Land purchased by Brodiaea, Roll Vineyards, and other investors have been driving up local water demand, further reducing the Paso Robles Basin's groundwater levels. The Agricultural Commissioner estimated approximately 4,000 acres of new vineyards were planted in the basin in 2012-2013, which added 4,000 to 5,000 acre-feet of water demand to the asin during that time alone.[46]

IV. How Governance of the Paso Robles Basin Took Shape Around Big Agricultural and Groundwater Privatization Interests

Since Paso Robles Basin is a high priority basin, a GSA that will conduct mandatory groundwater management must be designated under the Act. A structure for a GSA in this basin has already been established: in conjunction with passing the Act, in 2014 the State Legislature also passed Assembly Bill 2453 (AB 2453) that established a process by which a groundwater district for the Paso Robles Basin would be formed by the approval of a majority of landowners, as opposed to residents, within the Paso Robles Basin area.[47] The new water district will likely serve as the GSA for the Paso Robles Basin.[48] While the formation of the water district will be initially based on a one-owner, one-vote election, the formation of the board of directors of the future water district will be based on a hybrid system, with six of the nine directors elected by landowners on a one-acre, one-vote basis and three directors elected by registered voters in the basin.[49] In addition, of the six landowner-elected directors, two will be elected by "large" landowners (owners of title to

[45] Scott Slater negotiated agreements for transfer of 277,000 acre-feet per year for San Diego County Water Authority. *See Brownstein Hyatt Farber Schreck Shareholder: Scott Slater*, http://www.bhfs.com/people/attorneys/p-s/sslater. Mr. Slater is also the CEO and President of Cadiz, Inc., which seeks to extract over 2 million acre-feet of groundwater underneath the Mojave Desert in San Bernardino County. Center for Biological Diversity, *The Cadiz Water Project*, http://www.biologicaldiversity.org/campaigns/Cadiz/. On July 30, 2013, Scott Slater tweeted "@LPA Water: Paso Robles. High value beneficial use, lack of certainty, developing regulations, politicized, no market trades; change is coming." Scott Slater (@SlaterWaterLaw), Twitter, https://twitter.com/slaterwaterlaw/status/362244731478089728.

[46] San Luis Obispo County Board of Supervisors, San Luis Obispo Urgency Ordinance No. 3246, at 2 (adopted Aug. 27, 2013), http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/prfinalord.pdf.

[47] Cal. Water Code §37905(c)(6); A.B. 2453, 2013-2014 Leg., Reg. Sess. (Cal. 2014).

[48] 2014 Act, § 10723.

[49] Cal. Water Code § 37911(b) - (c).

400 acres or more), two by "medium" landowners (owners of title to between 40 and 400 acres), and two by "small" landowners (owners of title up to 40 acres).[50] The directors elected by landowners may come from any landowner class.[51] The legislation thus represents a sort of compromise between small landowners, large landowners, and non-owning residents (who will still be subject to any district taxes and assessments). The initial legislation, without the compromise election system, was spearheaded and supported by people and organizations closely associated with water privatization efforts, including the Paso Robles Agricultural Alliance for Groundwater Solutions (PRAAGS).[52] It remains to be seen how the compromise system will affect the membership of the board.

Section 10723.2 of the Act provides that a GSA shall consider the interests of all beneficial uses and users of groundwater.[53] However, the governance structure for the potential Paso Robles Basin GSA, likely weighing in favor of big agribusiness and water privatization interests, raises serious concerns regarding use equity and potential water rights conflicts, especially in light of increasing water demand within the heavily-tapped groundwater basin. While a GSA should represent all types of water users, including non-landowning residents and the environment, the governance structure of the likely Paso Robles GSA suggests that will not be the case. Rather than managing various users' interests and reducing conflict within the Paso Robles Basin, a future GSA dominated by directors supported and elected by medium- and large-landowners would likely enflame those conflicts and exasperate the basin's already-existing problems. Overlyers like smaller agricultural interests and non-agricultural residents could see their interests in percolated groundwater diminished while the GSA authorizes the drawing-down of the aquifer to increase the basin's storage capacity and enhance the basin's water banking potential, something that would benefit the larger landowners' poten-

[50] CAL. WATER CODE § 37911(b)(1)-(2).

[51] CAL. WATER CODE § 37911(b)(3).

[52] The constituents of PRAAGS include those who also work on behalf of Brodiaea and Roll Global. For instance, Matt Turrentine and Ernest Conant are two key members in PRAAGS who are also associated with Brodiaea and Roll Global, respectively. Matt Turrentine is a member of the board of directors of PRAAGS, has been responsible for assembling and purchasing Brodiaea's Investments. *See* Fritz, M., *Harvard Pushing Further Into Farm Sector with California Central Coast Vineyard Play*, FARMLANDINVESTORCENTER.COM (Mar. 14, 2014), *http://www.farmlandinvestorcenter.com/?p=722&option=com_wordpress&Itemid=171.* Ernest Conant is a partner at Young Woodridge, LLP, who advises both PRAAGS and the Kern Water Bank Authority, *See Who's Who in Kern County Water*, http://www.wakc.com/index.php/whos-who?pid=3&sid=82:Kern-Water-Bank-Authority (last visited Mar. 15, 2015).

[53] 2014 ACT, § 10723.2.

tial water banking profits while harming smaller, non-banking farms and residents dependent on percolated groundwater.

The increasing ownership of land in the Paso Robles Basin by larger agricultural and investment interests has escalated groundwater rights conflicts between non-residential landowners and residents. Recent land purchases have resulted in the drilling of a number of new wells, many of which are much deeper than existing wells. For instance, Brodiaea has recently acquired rights to drill 16 wells between 700–900 feet deep, securing rights for seven 800-foot wells just days before a ban on new wells went into effect.[54] Brodiaea's wells will be twice as deep as the average residential well in the region.[55] Local residents provided testimony in Summer 2013 regarding significant drops in well levels and wells going dry, especially in the Estrella, Creston, and Shandon sub areas where companies like Brodiaea have begun planting and operating new vineyards.[56] On August 27, 2013, the Board of Supervisors adopted an Urgency Ordinance that prohibits new water uses without 1:1 offsetting and metering requirements.[57] But the ordinance contains significant loopholes, including an exemption for an applicant who has secured a vested right to complete site preparation, planting, or sale of product by the date the ordinance became effective.[58] Many of the larger interests, including Justin Winery, applied for these exemptions before the ordinance went into effect.[59] The ordinance is due to expire in Fall 2015, which will likely unleash a wave of applications for new wells that could dramatically worsen the continued drawdown of the basin.

As the larger landowners and investor-backed interests secured the passage of AB 2453, over 500 individual landowners representing over

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[54] Valdmanis, R., *Harvard Buys Up Water Rights in Drought-hit Wine Country*, REUTERS .COM (Jan. 22, 2015), http://www.reuters.com/article/2015/01/22/harvard-water-idUSL1N0V02Z320150122.

[55] Valdmanis, R., *Harvard Buys Up Water Rights in Drought-hit Wine Country*, REUTERS .COM (Jan. 22, 2015), http://www.reuters.com/article/2015/01/22/harvard-water-idUSL1N0V02Z320150122; *see also* Case Study 1: Paso Robles Aquifer, Northern San Luis Obispo County, at 1, http://waterinthewest.stanford.edu/sites/default/files/Case%20Study%201.%20Paso%20Robles.pdf.

[56] San Luis Obispo County Board of Supervisors, San Luis Obispo Urgency Ordinance No. 3246, at 2 (adopted Aug. 27, 2013), http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/prfinalord.pdf.

[57] *See generally*, San Luis Obispo County Board of Supervisors, San Luis Obispo Urgency Ordinance No. 3246 (Adopted Aug. 27, 2013), http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/prfinalord.pdf.

[58] San Luis Obispo County Board of Supervisors, San Luis Obispo Urgency Ordinance No. 3246, at 6-7 (adopted Aug. 27, 2013), http://www.slocounty.ca.gov/Assets/PL/PR+Groundwater/prfinalord.pdf.

[59] Sneed, D., *Vineyards, Olive Farm Ask for Exemptions from Moratorium*, SAN LUIS OBISPO TRIBUNE (Oct. 2, 2013), http://www.sanluisobispo.com/2013/10/02/2714656/paso-robles-groundwater-basin.html.

16,000 acres filed two quiet title actions to defend the superior priority of their overlying water rights.[60] While immediately focused on the rights of the litigants, the actions could lead to adjudication of the entire basin.[61] Adjudication could neutralize some of the Act's provisions, and depending on the outcome could prevent some of the more inequitable scenarios discussed above from becoming reality.

Regardless of the outcome of the quiet title actions, the Paso Robles Basin will face tremendous pressure to convert some of its capacity from a percolated water resource to a groundwater banking operation. For example, landowners in the basin with access to State Water Project water (for the most part, the larger investor-owned agriculture interests) will have a strong incentive to draw down the basin to create capacity for banked water. After establishing a quasi-governmental agency such as a GSA, landowners with access or who desire access to SWP water will then be able to exchange SWP water allocations with groundwater from the basin using broad water transfer, exchange, and banking authorities from the Act.[62]

A 2008 groundwater banking feasibility study commissioned by the County Flood Control and Water Conservation District already explored potential locations and scenarios for water banking by first recharging the basin directly with imported surface water and indirectly via in lieu recharge, then recovering water from the basin in drier conditions.[63] The feasibility study explained that water banking "may serve an outside interest that pays either water and/or money to store water in the 'bank' for their time of need," and estimates that 55 percent of recharged water in the basin, which equals 90,000 AF, would be "recovered and delivered for outside of the basin" during dry conditions.[64] More than 252,000 AF

[60] Steinbeck Vineyards #1, LLC *et al. v.* County of San Luis Obispo *et al.* (Case No. 1-14-CV-265039, filed 05/08/2014 in Superior Court of California County of Santa Clara) (consolidated with *Eidemiller v. County of San Luis Obispo, et al.* (*Case* No. 1-14-CV-269212, filed 08/11/2014)).

[61] Nearby groundwater basins, like the Los Osos Groundwater Basin and the Santa Maria Groundwater Basin, are currently in adjudication. *See* What Role Does Adjudication Play in Groundwater Management, http://www.pasobasin.org/groundwater-management/judicial-oversight/ (last visited Feb. 3, 2015).

[62] *See* Cal. Water Code § 10726.2(d).

[63] San Luis Obispo County Flood Control and Water Conservation District, Paso Robles Groundwater Subbasin Water Banking Feasibility Study Final Report 3-8 & 3-9 (Apr. 2008), http://www.slocountywater.org/site/Water%20Resources/Reports/pdf/Paso%20Robles%20Groundwater%20Subbasin%20Water%20Banking%20Feasibility%20Study.pdf (acknowledging that "A water banking program differs from a groundwater recharge program by storing water for others that may or may not overlie the portion of the groundwater basin involved in the groundwater recharge activities. A water banking program requires an accounting system to distribute the costs and benefits of the program among the participants (including the banking partners and overlying groundwater users).") [hereinafter "2008 Water Banking Feasibility Study"].

[64] *Id*.

of dry year water supply may be sold to out-of-basin water users over the course of a 40-year project.[65] Thus, if groundwater banking materializes in Paso Robles Basin, overlying and interconnected in-stream uses may not have access to groundwater during times of drought because the majority of water saved in the basin would be allocated to out-of-basin users, unless they also pay into the bank during times of plenty. The 2008 groundwater banking feasibility study then recommended that specific banking partners be identified who might be interested in storing water in the basin or using banked water.[66]

Water banking will likely be greatly facilitated by the formation of a GSA for the Paso Robles Basin.[67] The GSA will have enormous power; while the Act contains some limitations on existing groundwater conjunctive use and storage programs,[68] there are no current imported water programs in the Paso Robles Basin. More importantly, the GSA will have the authority to acquire surface and groundwater rights and import and store water in the Basin.[69] In fact, the Paso Robles Groundwater Advisory Committee is actively exploring groundwater recharge opportunities, including agricultural irrigation and recharging the groundwater basin via recycled water.[70] The San Luis Obispo County Flood Control

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[65] *Id*. at 6-19.

[66] San Luis Obispo County Flood Control and Water Conservation District, Paso Robles Groundwater Subbasin Water Banking Feasibility Study Final Report ES-7 (Apr. 2008), http://www.slocountywater.org/site/Water%20Resources/Reports/pdf/Paso%20Robles%20Groundwater%20Subbasin%20Water%20Banking%20Feasibility%20Study.pdf.

[67] It is not surprising that the PRAAGS website explicitly promotes groundwater banking. *See* Paso Robles Agriculture Alliance for Groundwater Solutions Q & A, http://www.praags.org/FAQs/ (last visited Mar. 16, 2015).

[68] 2014 Act, § 10726.2 (A GSA "shall not alter another person's or agency's existing groundwater conjunctive use or storage program except upon a finding that the conjunctive use or storage program interferes with implementation of the agency's groundwater sustainability plan.")

[69] 2014 Act, § 10726.2 (A GSA may "(b) Appropriate and acquire surface water or groundwater and surface water or groundwater rights, import surface water or groundwater into the agency, and conserve and store within or outside the agency that water for any purpose necessary or proper to carry out the provisions of this part, including, but not limited to, the spreading, storing, retaining, or percolating into the soil of the waters for subsequent use or in a manner consistent with the provisions of Section 10727.2.")

[70] In May 2014 the County of San Luis Obispo signed a $657,502 contract with Carollo Engineers, Inc., to evaluate supplemental water supply options for use in the Paso Robles Basin. *Agreement for Professional Engineering Services*, executed May 8, 2014, http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/SOS/pdf/Supply%20Options%20Carollo%20Agreement%20Executed.pdf ("Carollo Contract"). The February 2015 administrative draft of this evaluation discusses options to recharge the basin with up to 3,300 AF of recycled water from wastewater treatment plants in the Paso Robles area, with the potential of blending recycled water with Nacimiento Project water. Carollo Engineers, Inc., Paso Basin Supplemental Water Supply Options Technical Memorandum No. 4: Recycled Water Supply Options and Points of Delivery 4-28, 4-29 (Feb. 2015), http://oceanocsd.org/agendas/03112015%20Agenda%20Item%2010C%20Paso%20Basin%20Recycled%20Water.pdf. Recent advisory board meetings also reflect ef-

and Water Conservation District is apparently also contemplating water banking options, although it is difficult to assess its progress since no recent studies or documents have been disclosed to the public.[71] Although advocates for the new water district, including PRAAGS, assure that groundwater in the basin will not be exported,[72] the proposed ordinance contains language that merely regulates such actions by requiring a permit for exportation.[73]

The future GSA will likely be dominated by larger, non-residential landowners. Non-residential landowners and future banking partners may find it in their common interest to interpret the legislative intent[74] and lax definitions of safe yield and overdraft provided in the Act[75] based on the opinion in *Los Angeles v. San Fernando*, which encourages drawing down basins to create additional storage space and prevent water "wasting."[76] Thus, in addition to exports, it is foreseeable that a future GSA will encourage drawdown of the aquifer to satisfy massive crop thirst as the drought continues, which will then create extra storage space

forts to obtain additional water resources for the basin, including releasing water to the Salinas River, which will provide additional recharge to the northern portion of the Paso Robles Groundwater Basin. Paso Basin Advisory Committee Meeting Agenda (Feb. 19, 2015), http://www.slocountywater.org/site/Water%20Resources/Water%20Forum/PRGWB%20Advisory%20Committee/Agendas/pdf/PBAC%20Agenda%202015_2_19.pdf.

[71] The Carollo Contract provides the San Luis Obispo County Flood Control and Water Conservation District has entered or will enter into a contract with another consulting firm regarding groundwater banking. *See* Carollo Contract, at Ex. 1, p.1.

[72] Paso Robles Agriculture Alliance for Groundwater Solutions Q&A, http://www.praags.org/FAQs/ (last visited Mar. 16, 2015).

[73] *See* Draft Ordinance Regulating the Exportation of Groundwater, http://www.slocounty.ca.gov/Assets/BOS/District+5/PDF/Draft+Export+Ordinance.pdf; *see also* David Sneed, *Supervisors Move to Restrict Groundwater Exports*, San Luis Obispo Tribune (Mar. 17, 2015), http://agenda.slocounty.ca.gov/agenda/sanluisobispo/2868/UFJHQiAyIC0gUHJlc2VudGF0aW9uLVdhdGVyIEJhbGFuY2UgRXN0aW1hdGlvbi5wZGY=/12/n/22518.doc.

[74] 2014 Act, § 10720.1(g) (It is the intent of the Legislature "[t]o increase groundwater storage and remove impediments to recharge.").

[75] 2014 Act, § 10721(v) ("Sustainable yield" is defined as "the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result."); 2014 Act, § 10735(a) ("Condition of long-term overdraft" means the condition of a groundwater basin where the average annual amount of water extracted for a long-term period, generally 10 years or more, exceeds the long term average annual supply of water to the basin, plus any temporary surplus. Overdraft during a period of drought is not sufficient to establish a condition of long-term overdraft if extractions and recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.").

[76] *Los Angeles v. San Fernando* 14 Cal. 3d 199, 280 (1975) ("We agree with plaintiff that if a ground basin's lack of storage space will cause a limitation of extractions to safe yield to result in a probable waste of water, the amount of water which if withdrawn would create the storage space necessary to avoid the waste and not adversely affect the basin's safe yield is a temporary surplus available for appropriation to beneficial use. Accordingly, overdraft occurs only if extractions from the basin exceed its safe yield plus any such temporary surplus.").

for imported waters to "recharge" the Basin. As a result of future water exchanges and banking, local residents will bear the additional cost of digging deeper wells just to maintain their straws in the aquifer, and will increasingly compete with each other over a diminishing percolated supply while banked supplies increase.

To prevent this outcome, a future GSP must be transparent by requiring that all water users be accountable for their overlying water use and groundwater-surface water interactions, as well as track the environmental and neighboring well impacts of potential exports.

V. Human Uses vs. Environmental Uses

While landowners and residents have been at the forefront of the water battles in the Paso Robles Basin, groundwater-dependent ecosystems will be the first to be negatively impacted from further groundwater drawdown and the implementation of water transfers and banking schemes. The Paso Robles Basin discharges to interconnected riparian and aquatic ecosystems: twelve percent of the basin naturally discharges into the Salinas River and other rivers, and three percent of it sustains riparian vegetation through evaporation.[77] Despite substantial hydrological connections between surface and groundwater in the Paso Robles Basin, no study regarding managing the Paso Robles Basin has evaluated the effects of groundwater withdrawal have and will have on groundwater-dependent riparian and aquatic systems in the area. The operation of the future groundwater sustainability plan (GSP) will result in environmental impacts that need to be addressed in order to avoid undesirable results, including significant and unreasonable land subsidence, seawater intrusion, water quality degradation, and depletions of interconnected surface waters.[78] The future Paso Robles GSA will also need to comply with Section 10727.2, requiring GSPs to include groundwater levels, groundwater quality, subsidence, and groundwater-surface water interaction.[79] Potential adverse environmental impacts from pumping groundwater, water exchanges, and water banking within Paso Robles Basin could be addressed only when the basin completes additional hydrological analyses and monitors pumping as discussed above, in order to comply with its obligations under the Act to avoid undesirable results including the depletion of interconnected surface waters and the species that depend on them to survive.

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[77] 2014 Groundwater Report, ES-5.

[78] 2014 Act, § 10721(w).

[79] 2014 Act, § 10727.2 (a)(1)-(5).

VI. Conclusion

In the wake of an unprecedented drought that has devastated communities and ecosystems throughout California, comprehensive groundwater legislation was finally enacted in 2014, granting local agencies control over the state's largest remaining water resources. While local management of groundwater resources may appear ideal, diverse interests at the local level will likely be undermined by those of powerful agribusiness owners, investors, and water brokers who view water not as a human right or environmental necessity, but a fungible commodity that can be captured and sold in a market or exchange. Paso Robles Basin is just one of many basins across the state poised to convert to privately controlled, for-profit water banks. As California will continue to grapple with increasingly frequent and severe drought due to climate change, the major policy decision to privatize groundwater basins is not being acknowledged, let alone discussed. Water–whether in our streams, rivers, lakes, or beneath our ground– is the ultimate public trust resource. California cannot afford to give water resources away to the highest bidder.