

California's Curse: Perpetual Drought and Persistent Land Development

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I. INTRODUCTION

The Coachella Valley, an oasis sitting proudly in the middle of the desert, is home to sprawling communities, lush golf courses, businesses, and hotels.¹ The Coachella Valley, like the rest of California, is running out of water.²

1. *Introducing Palm Springs and the Coachella Valley*, LONELY PLANET, <http://www.lonelyplanet.com/usa/california/palm-springs-and-coachella-valley/introduction> [https://perma.cc/6PXJ-KQYG] (last visited Nov 9, 2016) (explaining the evolution of the Coachella Valley into a golf course and hotel-laden valley); Matt Stevens, *With Flush Aquifer, Coachella Valley Golf Courses Slow to Conserve*, L.A. TIMES (Dec. 20, 2014, 10:00 AM), <http://www.latimes.com/local/california/la-me-adv-golf-water-20141221-story.html> [https://perma.cc/RP5W-VVYE] (“The Citrus is one of 123 [golf] courses in the Coachella Valley, the world-renowned resort destinations that spans 45 miles from Palm Springs to Indio.”); see *Visitor's Guide to Coachella, CA*, GREATER PALM SPRINGS, <http://visitgreaterpalmsprings.com/visit/explore/our-cities/coachella/> [https://perma.cc/2YFX-4XB9] (last visited Nov. 9, 2016); see also *Coachella Valley, California*, CITY-DATA, <http://www.city-data.com/city/Coachella-Valley-California.html> [https://perma.cc/8UJS-UWWR] (last visited Nov. 9, 2016).

2. Ian James, *Building in the Desert, Counting on Water*, DESERT SUN, Aug. 31, 2014, at A1; Anna R. Schecter & Matthew Deluca, *In Palm Springs, America's 'Oasis' Grapples with Drought*, NBC NEWS (Apr. 7, 2015, 2:24 PM), <http://www.nbcnews.com/Storyline/california-drought/palm-springs-americas-oasis-grapples-drought-n337371> [https://perma.

In 2014, environmentalists and locals alike were up in arms against land development in Coachella, where developers continued planning new communities consisting of about ten thousand homes.³ Residents were concerned about where the water would come from, as the groundwater levels that sustain the Coachella Valley have been declining for decades.⁴ The Colorado River replenishes the aquifer in the valley, but the water supply is not great enough to meet the increasing demand.⁵ Under California law, development agreements for subdivisions of over 500 dwelling units require written verification from a public water system that a sufficient water supply is available.⁶ Coachella Valley's water agencies, however, have not turned down any requests to supply water to proposed developments, despite California's state of drought and water shortages felt sharply in the Coachella

cc/UB7X-ETDC] ("Periodic dry spells are nothing new for California, or for Palm Springs, and city officials say they have been active in recent years to set ambitious goals to cut down on water amid a four-year drought.").

3. James, *supra* note 2, at A12 ("One of the largest proposed developments, La Entrada, would create a new community on 2,000 acres of desert . . . [and] would use a projected 5,365 acre-feet of water per year . . .").

4. *Id.* (discussing declining groundwater levels, and resident concerns over the water agencies' assumptions about the future); *Water-Use Restrictions & Penalties*, COACHELLA VALLEY WATER DIST., <http://www.cvwd.org/261/Water-use-Restrictions-Penalties> [https://perma.cc/7VMN-H6FB] (last visited Nov. 9, 2016) (explaining the Coachella Valley Water District's goal for a 20% reduction in water by 2020).

5. James, *supra* note 2, at A12 ("And that long-term downward trend [of groundwater levels]—together with the drought and the dropping levels of reservoirs on the Colorado River—has led some to ask whether the water agencies' assumptions about the future [land developments] are sound."); Lisa M. Krieger, 'A State of Drought': Coachella Valley Grapples with Shrinking Water Supplies, *MERCURY NEWS* (Oct. 3, 2015, 6:46 AM), http://www.Mercurynews.com/drought/ci_28916909/state-drought-coachella-valley-grapples-shrinking-water-supplies?source=infinite-up [https://perma.cc/X7VS-GNCZ] (explaining that the population in Coachella Valley has grown from around 1,000 in the early 1900s to about 500,000 today, and is expected to continue to rise at a fast rate, and that at least six new major land developments have been approved since the drought began four years ago).

6. CAL. GOV'T CODE § 66455.3 (West 2009) ("[A] tentative map application for a proposed subdivision . . . shall [be sent] to any [potential] water supplier . . ."); CAL. GOV'T CODE § 66473.7 (West 2009) (defining "subdivision," in part, as a "proposed residential development of more than 500 dwelling units," and "sufficient water supply," in part, as "the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand associated with the proposed subdivision"); MICHELLE FIRMACION & ELLIS RASKIN, HASTINGS PUB. L. & POL'Y WORK GROUP, CALIFORNIA LAW AT THE INTERSECTION OF WATER USE AND LAND PLANNING: A REPORT FOR THE CALIFORNIA OFFICE OF PLANNING AND RESEARCH 1, 19, 57 (2015), <http://gov.uchastings.edu/public-law/docs/water-landuse.pdf> [https://perma.cc/T6BS-VDSS].

Valley.⁷ Coachella’s utilities general manager said that the city places the burden to locate and ensure that there is water for the development project entirely on the developer.⁸

The Coachella Valley Water District’s Manager reviewed the water supply assessment for the development and advised the city that it would not object to the La Entrada project, one of the largest proposed developments consisting of commercial buildings, schools, parks, and 7,800 homes.⁹ Therefore, there appears to be a disparity between the mandated residential cutbacks on water use, and the approval of continuous development.¹⁰ Barton Thompson, director of Stanford University’s Woods Institute for the Environment, argues that developers must consider the available water supply in an area before asking to build additional homes.¹¹ Traditionally, cities, not water

7. James, *supra* note 2, at A12; see Krieger, *supra* note 5 (explaining that Coachella Valley received only twenty percent of its State Water Project allocation in 2015 due to the drought, so it supplemented its water supply with water imported from the Yuba River); Sammy Roth, *Desert Banking on FADING RIVER*, DESERT SUN, June 7, 2015, at A7 (“While the [Colorado] river is in better shape than Coachella Valley’s fragile aquifer, it faces a slow-burning crisis of its own.”).

8. James, *supra* note 2, at A12 (“[T]he city’s pending approval of the project hinges on CVWD’s confirmation that the water district has enough water [from] its imported allotment from the Colorado River to replace the amounts of water pumped from the aquifer.”); Rosalie Murphy & Ian James, *Unchecked Growth, Questions About Water*, DESERT SUN (Apr. 17, 2015), <http://www.desertsun.com/story/news/environment/2015/04/17/unchecked-growth-questions-water/25952941/> [https://perma.cc/5HVW-SWJ7] (“[Land] developments of more than 500 homes are required to seek approval of a water supply assessment, and as part of the process, developers need to show that there are sufficient water supplies for the next 20 years.”).

9. James, *supra* note 2, at A12. The Coachella Valley Water District approved plans for a proposed development that would create another neighborhood with about 2,400 homes, shops, offices, and buildings, one of the many proposed developments across the Coachella Valley. Ian James, *CVWD Ok's Plans for Agua Caliente Land Development*, DESERT SUN (Nov. 13, 2014, 5:08 PM), <http://www.desertsun.com/story/news/environment/2014/11/13/coachella-valley-water-agua-caliente-development/18999431/> [https://perma.cc/9VPJ-ZE4J].

10. Adam Nagourney, *Losing Water, California Tries to Stay Atop Economic Wave*, N.Y. TIMES (Aug. 19, 2015), <http://www.nytimes.com/2015/08/20/us/losing-water-california-tries-to-stay-atop-economic-wave.html> (“The drought that has overrun California—forcing severe cutbacks in water for farms, homeowners and businesses—has run up against a welcome economic resurgence that is sweeping across much of the state after a particularly brutal downturn.”); *id.* (“Water consumption is not necessarily the first concern of local officials as they approve grand 25-year development plans, with their promises of jobs and tax revenues.”); Sammy Roth, *California Drought: CVWD Could Increase Penalty Fees*, DESERT SUN (Oct. 14, 2015, 10:03 AM), <http://www.desertsun.com/story/news/environment/2015/10/13/california-drought-cvwd-increase-penalty-fees/73878116/> [https://perma.cc/4D9B-8BBQ] (noting that the Coachella Valley Water district has imposed penalty fines for excessive water use beyond the state-mandated 36% reductions in water use).

11. James, *supra* note 2, at A13; see also Adam Nagourney et al., *California Drought Tests History of Endless Growth*, N.Y. TIMES (Apr. 4, 2015), <http://www.nytimes.com/2015/04/05/us/california-drought-tests-history-of-endless-growth.html> (“Mayor Eric Garcetti of Los Angeles, pointing to Mr. Brown’s executive order and his own city’s success in reducing

agencies, make land use decisions.¹² David Feldman, chairman of UC Irvine's Department of Planning, Policy and Design, stated that "there needs to be some statewide guidance, instruction, maybe even limitations on building permits somehow linked to dependable water availability."¹³ Feldman is completely correct in this. The state must take a hands-on approach to this prevalent problem of granting developments when there is not a sufficient water supply that evidently occurs in areas that must not continue developing, especially when California is suffering a terrible drought.¹⁴

California's population rapidly expanded in the mid-1900s, so land planners began using zoning and general plans to guarantee that future growth would fit within a comprehensive plan and not alter the general welfare of an area.¹⁵ Land developers began claiming scarce water resources through "prescription," which occurs when a person takes title to another's property by openly and notoriously occupying the property of another for the period of time prescribed by law.¹⁶ After the California Supreme Court limited prescriptive rights in several cases, it was evident that there must be one system of water regulation among landowners.¹⁷ This current trend in California of land development

water consumption, said he was confident that the state would find ways to deal with an era of reduced water supplies, in a way that would permit it to continue to grow and thrive.").

12. James, *supra* note 2, at A13; *see also Housing Element*, PALM SPRINGS 2014–2021 HOUSING ELEMENT: GENERAL PLAN, at 3–79, <http://www.ci.palm-springs.ca.us/home/showdocument?id=29351> [<https://perma.cc/L97K-2CEB>] ("Palm Springs recognizes the finiteness of its water supply and the importance of conservation.").

13. James, *supra* note 2, at A13; *see Faculty: David L. Feldman*, UCI SCHOOL OF SOCIAL ECOLOGY, <https://socialecology.uci.edu/faculty/feldmand> [<https://perma.cc/ZL9V-Q6WG>] (last updated Nov. 9, 2016).

14. *2016 Drought Watch*, ASS'N OF CAL. WATER AGENCIES, <http://www.acwa.com/content/drought> [<https://perma.cc/DN7F-QD5E>] (last visited Nov. 9, 2016) ("The uneven recovery and possibility of dry conditions next year means that the drought is not over yet.").

15. FIRMACION & RASKIN, *supra* note 6, at 15; *see* MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* 109 (rev. ed. 1993) ("Even California, in the midst of a big population boom, saw the growth of its *agricultural* population come to a standstill in 1895 [due to a drought]."); *see* Mark August Nitikman, Note, *Instant Planning-Land Use Regulation by Initiative in California*, 61 S. CAL. L. REV. 497, 501–02 (1988) (discussing the history of California's zoning laws).

16. CAL. CIV. CODE § 1007 (West 2007) ("Occupancy for the period prescribed by the Code of Civil Procedure as sufficient to bar any action for the recovery of the property confers a title thereto, denominated a title by prescription . . ."); CAL. CIV. PROC. CODE § 321 (West 2006) (explaining that title is obtained after five years of open and notorious adverse possession).

17. *City of Barstow v. Mojave Water Agency*, 5 P.3d 853, 864 (Cal. 2000) (holding that preexisting water users' priority could not be supplanted by apportioning prescriptive rights); *People v. Shirokow*, 605 P.2d 859, 866 (Cal. 1980) (holding that while prescriptive

in spite of a constantly dwindling water supply is simply unsustainable, and the state legislature must control water disbursement and management, and ultimately land development, to curb water shortages in California.¹⁸ This Comment argues that the California state legislature should take direct control of private water use rights through legislation that amends California's Constitution Article X, Section 2, providing the state with the police power to take back private water rights and centralize control over water management and distribution.¹⁹ It also recommends imposing higher requirements for land development and water agency cooperation in standard form, state-controlled "general plans" to create efficiency in distributing water throughout the state and in planning new land developments. The public trust doctrine, eminent domain doctrine, and regulatory takings doctrine are possible justifications the state could use to effectuate the new legislation.

Part I of this Comment will provide background on the different categories of water rights in California, the State Water Resources Control Board (State Water Board) and major water supply projects, the different groups demanding water in California, the history of legislation that arose with each major drought in California, and land use planning laws. Part II will argue that the state should take direct control over private water rights in California, a concept legally justified by the public trust doctrine, eminent domain, and the regulatory use doctrine. Part III will explain the logistics of enacting this proposal, including implementing the suggested constitutional amendment and improving the "general plans" required before land development occurs, along with the counterarguments and implications of the proposal. Part IV will conclude that this power transfer from individuals and cities to the state is essential in a state that has inconsistent and failing policies with coordinating land development and water supplies, and it is especially necessary in this period of drought.

rights exist, these rights are subordinate to the state's regulatory authority); FIRMACION & RASKIN, *supra* note 6, at 15 (explaining California's history of suburban sprawl that led to adverse possession of water rights); see Nirav K. Desai, *Up a Creek: An Introduction to the Commission's Final Report Discussion of Uncertainty in California Water Rights Law*, 36 MCGEORGE L. REV. 29, 39 (2005) (noting that in 1980, the California Conservation Commission recommended that the state abolish prescriptive rights entirely).

18. FIRMACION & RASKIN, *supra* note 6, at 19 ("Although California has taken some steps to align land planning with water management, these two areas of regulation remain disconnected in many respects. There are no laws in California that prohibit new development where water is not available to support further growth.").

19. California's water management issues would benefit from adding language to the State's Constitution in article X, section 2 stating, for example: "The State has the legal police power to take back all types of private water use rights, including but not limited to riparian rights, pre-1914 rights, and appropriated rights, in times of water shortage or at any time the State determines that water in the State is not being put to beneficial and reasonable use. The State must then centralize control over the water rights, and redistribute the water in the most beneficial and reasonable way to the local water managers of the State."

II. DOWN TO THE LAST DROP—HOW WATER HAS BEEN POSSESSED, MANAGED, AND DISTRIBUTED IN CALIFORNIA OVER TIME

A. *The Evolution of Water Rights*

In California, the water supply is subject to the overarching constitutional limitation that water use must be reasonable.²⁰ The “reasonable use” standard is as follows:

All water flowing in any natural channel, excepting so far as it has been or is being applied to useful and beneficial purposes upon, or in so far as it is or may be reasonably needed for useful and beneficial purposes upon lands riparian thereto, or otherwise appropriated, is hereby declared to be public water of the State and subject to appropriation in accordance with the provisions of this code.²¹

Due to the conditions in California, the general welfare requires that water use be limited to “reasonable and beneficial use,” where a “riparian” water right “entitles the landowner to use a correlative share of the water flowing past his or her property.”²² Where riparians’ water rights were historically only limited by other riparians using the same stream and appropriators were limited to reasonable use, California enacted a constitutional amendment subjecting both riparians and appropriators to the limitation of reasonable

20. CAL. CONST. art. X, § 2; *see* CRAIG M. WILSON, CAL. WATER BDS., THE REASONABLE USE DOCTRINE & AGRICULTURAL WATER USE EFFICIENCY 1, 3 (2011), http://www.waterboards.ca.gov/board_info/agendas/2011/jan/011911_12_reasonableuse doctrine_v010611.pdf [<https://perma.cc/T32T-NW4S>] (“The Reasonable and Beneficial Use Doctrine (Reasonable Use Doctrine) is the cornerstone of California’s complex water rights laws. . . . The underlying premise of this report is that the inefficient use of water is an unreasonable use of water.”).

21. CAL. WATER CODE § 1201 (West 2009); *compare* CAL. WATER CODE § 102 (West 2009) (“All water within the State is property of the people of the State, but the right to the use of water may be acquired by appropriation in the manner provided by law.”), *with* COLO. CONST. art. XVI, § 6 (“The right to divert unappropriated waters of any natural stream to beneficial uses shall never be denied.”).

22. CAL. CONST. art. X, § 2; CAL. WATER CODE § 100 (West 2009); *The Water Rights Process*, STATE WATER RES. CONTROL BD., http://www.waterboards.ca.gov/waterrights/board_info/water_rights_process.shtml [<https://perma.cc/9X2M-P99K>] (last visited Nov. 9, 2016) [hereinafter *Water Rights Process*] (“Riparian rights do not require permits, licenses, or government approval, but they apply only to the water which would naturally flow in the stream.”); *see* CALIFORNIA’S WATER: AN LAO PRIMER, LEGISLATIVE ANALYST’S OFFICE (2008), http://www.lao.ca.gov/2008/rsrc/water_primer/water_primer_102208.aspx#chapter1 [<https://perma.cc/93JR-NYMB>] (stating that the “reasonable use” requirement must be reformed, because the constitution-mandated implementation has “counter-productive results” where it has been implemented as a “use it or lose it” policy, leading to water overuse, and inefficient, continued water use).

use of water.²³ This constitutional amendment has become the golden rule in California.²⁴

California law divides water into several categories, including surface water, percolating groundwater, and subterranean streams flowing through known and definite channels.²⁵ California water law also distinguishes between several categories of water rights holders depending on how the water right was obtained.²⁶

1. Groundwater Rights

To obtain groundwater rights, one can extract the water and use it for a beneficial purpose, unless it is water in a subterranean stream flowing in known and definite channels.²⁷ An entity or individual has an “overlying groundwater right” when it uses water on land over the groundwater basin from which the water comes.²⁸ An “appropriative groundwater right” occurs when the individual or entity takes the water from another place, where

23. CAL. CONST. art. X, § 2; see *Peabody v. City of Vallejo*, 40 P.2d 486, 498–99 (Cal. 1935) (finding that the constitutional limitation applies “to all water rights enjoyed or asserted in this state, whether the same be grounded on the riparian right or . . . the appropriative right”); *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 170 (Ct. App. 1986) (“Historically, appropriators, but *not* riparians, were limited to reasonable and beneficial uses of the water; riparians were subject only to the needs of other riparians on the same stream, frequently with wasteful results.”).

24. WATER § 100 (“[B]ecause of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable.”); see *State Water Res. Control Bd.*, 227 Cal. Rptr. at 171 (“This ‘rule of reasonable use’ is now the cardinal principle of California’s water law.”).

25. CAL. WATER CODE § 1200 (West 2009); Jan Stevens, *California’s Groundwater: A Legally Neglected Resource*, 19 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 3, 7 (2013) (“California law sets forth three categories for water: surface water, percolating groundwater, and subterranean streams flowing through known and definite channels.”).

26. *Water Rights Process*, *supra* note 22 (explaining that water right law in California developed into two general divisions of rights: riparian rights, which come with owning a parcel of land adjacent to a source of water, and appropriative rights, which began when fortune-seeking miners came to California and claimed water rights by “posting notice”). Notably, a permit process governs this system today. *Id.*

27. *Water Rights*, STATE WATER RES. CONTROL BD., http://www.waterboards.ca.gov/waterrights/board_info/faqs.shtml [<https://perma.cc/3C9V-R4ZF>] (last visited Nov. 9, 2016) [hereinafter *Water Rights*]; *Waste Management Inc.*, Dec. 1645 (Cal. State Water Res. Control Bd. Oct. 17, 2002), http://www.swrcb.ca.gov/waterrights/board_decisions/adopted_orders/decisions/d1600_d1649/wrd1645.pdf [<https://perma.cc/3HEC-XJN9>].

28. *Water Rights*, *supra* note 27. For a discussion of depleted groundwater basins in California and the accompanying consequences, see Matt Stevens, *21 California Groundwater Basins in ‘Critical’ Condition, State Panel Says*, L.A. TIMES (Aug. 19, 2015, 4:30 PM), <http://www.latimes.com/local/lanow/la-me-ln-groundwater-basins-overdraft-20150819-story.html> [<https://perma.cc/PB27-Q3CL>].

overlying rights have higher priority than appropriative rights.²⁹ Today, appropriators must obtain permits for water rights.³⁰ The State Water Board can only issue groundwater diversions from subterranean streams, and the state can stop wasteful or unreasonable uses of groundwater or groundwater diversions that harm state resources.³¹

2. Surface Water Rights

California recognizes several different types of rights to use surface water.³² Water rights holders include riparians, appropriators, and permittees and licensees under the State Water Board's jurisdiction.³³ Individuals hold some rights, such as riparian, appropriated, and permitted rights, while the government exclusively holds other rights, such as pueblo rights.³⁴ California

29. *Water Rights*, *supra* note 27; *see also* *Miller & Lux, Inc. v. Enter. Canal & Land Co.*, 147 P. 567, 570 (Cal. 1915) (holding that the plaintiff company could not sustain a claim of a prescriptive right against a defendant company that had riparian land, and thus riparian water rights, situated above the point of the plaintiff's diversion into their water source).

30. *Water Rights Process*, *supra* note 22 ("The [Water Commission] Act created the agency that later evolved into the State Board and granted it the authority to administer permits and licenses for California's surface water.").

31. *Water Rights*, *supra* note 27. For more information on groundwater rights, *see* Gregory S. Weber, *Forging a More Coherent Groundwater Policy in California: State and Federal Constitutional Law Challenges to Local Groundwater Export Restrictions*, 34 SANTA CLARA L. REV. 373, 374 (1994) ("[This article] explores in detail an important question left largely unexplored in earlier work: the authority of local governments, under the state and federal constitutions, to restrict groundwater exports.").

32. Bettina Boxall, *Lawsuits Over California Water Rights Are a Fight a Century in the Making*, L.A. TIMES (June 29, 2015, 4:00 AM), <http://www.latimes.com/local/california/la-me-water-rights-legal-20150629-story.html> [<https://perma.cc/XW28-QYFW>] (describing how in California, most rights to surface water are based on the idea of "first in time, first in right," where the priority lies with users who first diverted and used the resource). The most senior water rights predate 1914, the beginning of the permit system. *Id.*

33. Brian E. Gray, *Fragmented Regulation of Multiple Stressors: A Cautionary Tale for Takings Law*, 19 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 341, 346 (2013) ("The water rights of these users run the gamut of California surface water rights law, including riparians, pre-1914 appropriators, and permittees and licensees subject to the SWRCB's direct regulatory jurisdiction."). For more explanation of the State Water Board's jurisdiction, *see* Ruth Langridge, *Drought and Groundwater: Legal Hurdles to Establishing Groundwater Drought Reserves in California*, 36 ENVIRONS ENVTL. L. & POL'Y J. 91, 103 (2012) (examining whether the "recent re-articulation of the test for a 'subterranean stream' include[s] water previously not under the jurisdiction of the SWRCB in the determination of surface water rights").

34. *Water Rights*, *supra* note 27; *see* Eric B. Kunkel, *The Spanish Law of Waters in the United States: From Alfonso the Wise to the Present Day*, 32 MCGEORGE L. REV. 341, 353–56 (2001) (discussing the development of the pueblo water rights doctrine in California

water law also distinguishes between senior water rights holders and junior water rights holders.³⁵

Generally, riparians are landowners who have the right to divert and use the water flowing near the riparians' land, as opposed to appropriators who must obtain permits for water rights.³⁶ Riparian water rights exist when a landowner is entitled to use water that naturally flows next to or on his land, but such use must be reasonable and for beneficial purposes.³⁷ The aftermath of the drought has proved riparian water rights, which are senior rights, to not be as secure as riparians believed.³⁸

Pueblo water rights are senior water rights held by municipalities that can trace their origin back to a Spanish or Mexican pueblo and have seniority over natural waterways and connected groundwater basins within their

through case law); *see, e.g.*, *Lux v. Haggin*, 10 P. 674, 715 (Cal. 1886) (“[W]e hold the pueblos had a species of property in the flowing waters within their limits, or ‘a certain right or title’ in their use, in trust to be distributed to the common lands . . .”).

35. *Water Rights Process*, *supra* note 22 (explaining that after 1914, appropriative rights are governed by the hierarchy of priorities developed by gold miners in California); *id.* (“In times of shortage the most recent (‘junior’) right holder must be the first to discontinue such use; each right’s priority dates to the time the permit application was filed with the State Board.”); *see Fact Sheet*, CAL. ENVTL. PROT. AGENCY, http://www.swrcb.ca.gov/waterrights/water_issues/programs/drought/docs/tucp/curtailment_fact_sheet.pdf [<https://perma.cc/B2WP-SWEE>] (last updated Nov. 9, 2015) (explaining that the most junior water right holders are curtailed before restrictions are placed on senior water right holders).

36. *Water Rights Process*, *supra* note 22 (noting that riparian rights entitle “the landowner to use a correlative share of the water flowing past his or her property” and do not require government issued permits); *see Miller & Lux, Inc. v. Enter. Canal & Land Co.*, 147 P. 567, 570 (Cal. 1915) (“Under the established law of riparian rights, a title by prescription cannot be acquired against a tract of riparian land by diverting the water from the stream at a point below such land, and not interfering with the stream at the riparian land.”).

37. CAL. CONST. art. X, § 2 (“Riparian rights in a stream or water course attach to, but to no more than so much the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses.”). For an example of rules under common law riparianism in eastern states, *see City of Canton v. Shock*, 63 N.E. 600, 603 (Ohio 1902), which held that water “cannot be lawfully diverted or transported” from its original source. Riparian rights are common in eastern states. *See* Robert W. Adler, *Climate Change and the Hegemony of State Water Law*, 29 STAN. ENVTL. L.J. 1, 17 (2010) (“The riparian rights system applied in most eastern states, in which all owners of riparian property have the right to reasonable use of water, evolved under conditions of relatively plentiful water supplies, although the modified administrative version of riparian rights now in place in most of the East has increasingly had to address water shortages and related conflicts among municipal and other users.”).

38. Diane Kindermann Henderson, *The Language of Water: California’s Water Lexicon Expands*, 56 ORANGE COUNTY LAW. 10, 14 (2014) (noting that senior water rights are “generally . . . superior” but do not guarantee water, and while possibly unpopular, senior water rights can be curtailed to prevent unreasonable use of the state’s water supplies).

municipal boundaries.³⁹ However, pueblo rights do not extend to groundwater basins that are not connected to surface waters within the municipal boundaries of the pueblo.⁴⁰

The last category of senior water rights holders is pre-1914 appropriators. In California prior to 1914, water rights holders simply took control of water and used however much they wanted.⁴¹ The Water Commission Act of 1914 established the permit process that allows for the appropriation of unappropriated state water.⁴² The State Water Board has the jurisdiction over unlicensed pre-1914 appropriators and can rule on the reasonableness of their irrigation practices.⁴³ Junior water rights, which are water rights that

39. See Ronald B. Robie, *Effective Implementation of the Public Trust Doctrine in California Water Resources Decision-Making: A View From the Bench*, 45 U.C. DAVIS L. REV. 1155, 1162 (2012) (“It is true that the Board’s authority over water rights is somewhat limited because its permitting and licensing authority extends only to appropriative water rights acquired since 1914 and does not encompass riparian or pueblo rights at all.” (citing *Cal. Farm Bureau Fed’n v. State Water Res. Control Bd.*, 247 P.3d 112, 117–18 (Cal. 2011))); see also *Vernon Irrigation Co. v. City of Los Angeles*, 39 P. 762, 763 (Cal. 1895) (noting that pueblo water rights gave the pueblo “the power to distribute the water for the benefit of all the lands . . . claimed by the pueblo”).

40. *City of Los Angeles v. City of San Fernando*, 537 P.2d 1250, 1261 (Cal. 1975) (“The pueblo right has been held to attach to the water needs of inhabitants of areas annexed to the city rather than being confined to the needs of inhabitants of the original pueblo.” (citing *City of Los Angeles v. Pomeroy*, 57 P. 585, 603 (Cal. 1899))); *Pueblo Water Rights*, WATER EDUC. FOUND., <http://www.watereducation.org/aquapedia/pueblo-water-rights> [https://perma.cc/V5DJ-2X2B] (last visited Nov. 9, 2016) (“Water use under a pueblo right must occur within the modern city limits, and excess water may not be sold outside the city.”).

41. *Water Rights Process*, *supra* note 22 (noting that up until The Water Commission Act of 1914, water appropriators, mostly miners and nonriparian farmers, took control of and used however much water they wanted).

42. *Temescal Water Co. v. Dep’t of Pub. Works*, 280 P.2d 1, 11 (Cal. 1955) (“A permit itself confers no appropriative rights but fixes the priority of its recipient over subsequent appropriators; it expressly provides that its issuance is subject to vested rights.” (citing CAL. WATER CODE §§ 1450–1456 (West 2009))); *Bloss v. Rahilly*, 104 P.2d 1049, 1051 (Cal. 1940) (“The main purpose of [the Water Commission Act] was to provide an orderly method for the appropriation of the unappropriated waters of the state and, to that end, a state water commission was created and was vested with certain powers.”); see *Water Rights Process*, *supra* note 22 (“The Water Commission Act of 1914 established today’s permit process. The Act created the agency that later evolved into the State Board and granted it the authority to administer permits and licenses for California’s surface water.”).

43. *Imperial Irrigation Dist. v. State Water Res. Control Bd.*, 275 Cal. Rptr. 250, 267 (Ct. App. 1990) (affirming the State Water Board’s decision regarding Imperial Irrigation District’s misuses of water, and an order requiring action be taken); see *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 201 (Ct. App. 1986) (“The Board’s obligation when setting such [water quality] standards is to ‘establish such water quality objectives . . . as

have been appropriated after pre-1914 senior water rights holders already claimed their rights, are traditionally curtailed before senior water rights because water rights are prioritized depending on when the rights were obtained.⁴⁴ Following this logic, riparians have greater priority over appropriators.⁴⁵

Senior water rights holders exemplify one group that stands in the way of state control of water use and management.⁴⁶ All of the senior water rights holders, including riparians, pueblo water rights holders, and pre-1914 appropriators, are exempt from the fees charged to all appropriators of surface water that operate under permit or license issued by the State Water Board.⁴⁷ The Sacramento County Superior Court found that the 2003 annual fees only covered about sixty-two percent of surface water rights holders because riparians, pueblo water rights holders, and pre-1914 appropriators were statutorily exempt from the fees.⁴⁸ This means that these three groups include about thirty-eight percent of water rights holders.⁴⁹ This is a large number that could be allocated back to state control.

in its judgment will ensure the reasonable protection of beneficial uses . . .” (quoting CAL. WATER CODE § 13241 (West 2009))).

44. See Julia Lurie, *California Has Cut Water to Some Farmers. What Exactly Does That Mean?*, MOTHER JONES (May 22, 2015, 5:14 PM), <http://www.motherjones.com/environment/2015/05/breaking-california-cutting-water-to-farms> [<https://perma.cc/T6AQ-NQSM>] (discussing the distinction between senior and junior water rights, water cuts in California in early 2015, as well as the yearly use of some of California’s top crops); see *Water Rights Process*, *supra* note 22.

45. *Water Rights Process*, *supra* note 22 (“Riparian rights still have a higher priority than appropriative rights.”).

46. Brian Gray et al., *Paying for Water in California: The Legal Framework*, 65 HASTINGS L.J. 1603, 1619 (2014) (noting that riparians, pre-1914 appropriators, and pueblo water right holders are exempt from paying the fees charged to appropriators of surface water who obtained a permit issued by the State Water Board, and the fees were subsequently found unconstitutional because the senior water rights holders were exempted).

47. CAL. WATER CODE § 1525(a) (West 2009) (“[E]ach person or entity who holds a permit or license to appropriate water, and each lessor of water leased under Chapter 1.5 (commencing with Section 1020) of Part 1, shall pay an annual fee according to a fee schedule established by the [State Water] board.”); Gray et al., *supra* note 46, at 1619.

48. Kurtis Alexander, *Just Like City Folk, Water Rights Holders Will Have To Track Usage*, S.F. CHRON. (Jan. 19, 2016, 8:45 PM), <http://www.sfchronicle.com/bayarea/article/Just-like-city-folk-water-rights-holders-may-6769950.php> [<https://perma.cc/2PRV-MCAZ>] (“Acknowledging they can’t manage what they can’t measure, regulators in Sacramento passed rules to require holders of longtime water rights to track and report what they draw from rivers and creeks.”); Gray et al., *supra* note 46, at 1619; *Water Rights*, *supra* note 27 (“If you have a pre-1914 [appropriative] right, you do not need a water right permit unless you have increased your use of water since 1914.”).

49. Gray et al., *supra* note 46, at 1619. Interestingly, while senior water rights holders were traditionally exempt from fees, they are now currently being managed in other ways, with senior water rights being reduced or cut all together. Kurtis Alexander, *California Tells Senior Water Rights Holders to Stop Pumping*, S.F. GATE (June 12, 2015, 9:03 PM), <http://www.sfgate.com/news/article/California-to-senior-water-rights-holders-Stop-6324124.php> [<https://perma.cc/38MJ-KUTK>] (“California farmers, irrigation districts and even

If water rights are not inherent in owning land near a water source, as is the case for riparians and pueblo water rights holders, groups can obtain water rights via the permit system.⁵⁰ Under California law, the State Water Board allows unappropriated water to be appropriated for beneficial purposes that will best develop, conserve, and use the water in the public interest.⁵¹ The State Water Board approves applications for permits for appropriated water.⁵² The State Water Project (SWP), for example, has appropriative water rights obtained via a permit issued in 1967.⁵³ Therefore, the state is essentially in charge of unappropriated water and approving permit applications to use the remaining water.⁵⁴ The state permit process “continues in effect

a few small communities that hold some of the strongest rights to water from rivers and streams were ordered Friday to stop pumping, one of the most far-reaching efforts by the state to protect diminishing supplies amid the four-year drought.”).

50. CAL. WATER CODE § 1253 (West 2009) (“The board shall allow the appropriation for beneficial purposes of unappropriated water . . . as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated.”); *Water Rights Process*, *supra* note 22 (“The Water Commission Act of 1914 established today’s permit process.”); *id.* (“The act was the predecessor to today’s water Code provisions governing appropriation.”). For a discussion of the curtailment process and how growers who typically rely on surface water have increasingly relied on groundwater, see Lauren Maria Alexander, *Drought Forcing California Growers to Rely on Groundwater*, GROWING PRODUCE (Oct. 31, 2014), <http://www.growingproduce.com/vegetables/drought-forcing-california-growers-to-rely-on-groundwater/2/> [<https://perma.cc/C4KT-JQ7B>] (“While sifting through the red tape associated with water rights may be a task better suited for a lawyer, there are other factors at play here that are more within your control [as a grower], and a heightened awareness of groundwater use is one of them.”).

51. WATER § 1253 (“The board shall allow the appropriation for beneficial purposes of unappropriated water . . . as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated.”).

52. CAL. WATER CODE § 1252 (West 2009) (“Any person may apply for and secure from the board . . . a permit for any unappropriated water.”); see Lawrence J. MacDonnell & Teresa A. Rice, *Moving Agricultural Water to Cities: The Search for Smarter Approaches*, 14 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 105, 138 (2008) (describing another function of the State Water Board, which is to evaluate applications for short-term, temporary changes in the “point of diversion, place of use, or purpose of use” of water).

53. *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 167, 169 (Ct. App. 1986) (noting that the California Department of Water Resources obtained appropriative rights to operate the State Water Project, and the State Water Board issued the permits to do so in 1967).

54. WATER § 1253; *State Water Res. Control Bd.*, 227 Cal. Rptr. at 201 (“Once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water.” (citation omitted)); see Roderick E. Walston, *California Water Law: Historical Origins to the Present*, 29 WHITTIER L. REV. 765, 778 (2008) (“The State of California has created a parallel water project [to the federal

the priority of right as of the date of the application and gives the right to take and use the amount of water specified in the permit until the issuance of a license for the use of the water or until the permit is revoked.”⁵⁵ Appropriators’ water rights are therefore limited by priorities in time, meaning their rights are subordinate to the rights of riparians and senior appropriators, who were preexisting water rights holders.⁵⁶ If water use must be reduced in the state, junior water rights holders must cut back first before senior water rights holders have to reduce their usage at all.⁵⁷ Appropriators and other users have a harder time acquiring water because appropriators must go through a stringent and expensive permit process to gain water use rights, and would benefit from sharing the wealth of riparians’ easy access to water rights.⁵⁸ The State Water Board must determine if surplus water is available before a group is granted a water right permit, and this permit does not affect previous permits held by riparians and senior appropriators.⁵⁹ This system

Central Valley Project]—the State Water Project—that similarly redistributes much of the state’s water supply.” (citing *State Water Res. Control Bd.*, 227 Cal. Rptr. At 167)).

55. CAL. WATER CODE §§ 1252, 1455 (West 2009); *State Water Res. Control Bd.*, 227 Cal. Rptr. at 169 (“If the permit holder or license holder violates any of the terms or conditions or fails to apply the water to a beneficial purpose, the Board may revoke the permit or license.” (citing CAL. WATER CODE §§ 1410, 1611 (West 2009))). Notably, most of the State Water Board’s decisions are regarding permit applications. Gregory A. Thomas, *Conserving Aquatic Biodiversity: A Critical Comparison of Legal Tools for Augmenting Streamflows in California*, 15 STAN. ENVTL. L.J. 3, 26 n.115 (“The Board . . . may ultimately revoke a permit if the holder violates the permit conditions or does not use the water for beneficial purposes.” (citations omitted)).

56. *State Water Res. Control Bd.*, 227 Cal. Rptr. at 170; see *Statutory Water Rights Law*, CAL. WATER BDS. 1, xvii (Jan. 2016), http://www.swrcb.ca.gov/laws_regulations/docs/wrlaws.pdf [https://perma.cc/KS53-HZRD] (“When the Board issues a permit based on a state filed application the Board cannot impose a permit term designed to prevent diversion when natural flows are insufficient to meet water quality objectives” (citing *El Dorado Irrigation Dist. v. State Water Res. Control Bd.*, 48 Cal. Rptr. 3d 468 (Ct. App. 2006))).

57. *State Water Res. Control Bd.*, 227 Cal. Rptr. at 170; see *Statutory Water Rights Law*, *supra* note 56, at xviii (“Forfeiture of a senior water right does not necessarily make unappropriated water available, because junior appropriators may be able to make use of the forfeited water, during periods when there otherwise would not have been sufficient water available to fully satisfy those junior rights.” (citing *North Kern Water Storage Dist. v. Kern Delta Water Dist.*, 54 Cal. Rptr. 3d 578 (Ct. App. 2007))).

58. *Water Rights Process*, *supra* note 22 (explaining that a prospective appropriator of water must follow several steps in order to be eligible for appropriating water, including filing an application, acceptance of the application, environmental review, public notice of the applicant’s intent, protest resolution, and permit issuance); see also Andrea B. Carroll, *Examining a Comparative Law Myth: Two Hundred Years of Riparian Misconception*, 80 TUL. L. REV. 901, 904 (2006) (discussing whether riparian landowners on a nonnavigable lake have “mutual rights” to the lake’s surface for “nonconsumptive” and recreational purposes).

59. *Temescal Water Co. v. Dep’t. Pub. Works*, 280 P.2d 1, 11 (Cal. 1955) (noting that a permit does not confer an appropriative right, but establishes the priority of the permit holder over subsequent permit holders, and is still subject to prior vested water rights);

does not seem beneficial to a state like California, which has different levels of need for water across the state.⁶⁰

B. The State Water Resources Control Board and Major Water Supply Projects

The State Water Board was created by the Legislature in 1967 and aims to ensure high water quality for the state as well as allocate water to “achieve the optimum balance of beneficial uses.”⁶¹ Five members appointed to four-year terms by the Governor and confirmed by the Senate run the State Water Board.⁶² There are also nine Regional Water Quality Control Boards, called Regional Boards, that “develop and enforce water quality

Duckworth v. Watsonville Water & Light, Co., 150 P. 58, 60 (Cal. 1915) (“It has long been settled in this state that an appropriation under the code divests no existing private right, that its effect is merely to give preference over a subsequent appropriator . . .” (citations omitted)). For a discussion of water use permits and the potential impacts of permits on the public trust, see Michelle Bryan Mudd, *Hitching Our Wagon to a Dim Star: Why Outmoded Water Codes and “Public Interest” Review Cannot Protect the Public Trust in Western Water Law*, 32 STAN. ENVTL. L.J. 283, 299 (2013) (“Under this authority, the State Water Resources Control Board (SWRCB) can ‘impose further limitations on the diversion and use of water by the permittee in order to protect public trust uses.’” (citation omitted)).

60. See Jeffrey Mount et al., *Water Use in California*, PUB. POL’Y INST. OF CAL. (2014), http://www.ppic.org/content/pubs/jtf/JTF_WaterUseJTF.pdf [<https://perma.cc/A6KX-BT56>] (explaining that as of July 2014, average water use was roughly fifty percent environmental, forty percent agricultural, and ten percent urban, and the percentage varies depending on the amount of rainfall each year). Interestingly, environmental water use includes water in rivers that are protected as “wild and scenic,” and occurs in rivers along California’s northern coast. *Id.* Agricultural use represents about eighty percent of all human water use. *Id.*

61. *Water Board’s Structure*, CAL. ENVTL. PROT. AGENCY, http://www.swrcb.ca.gov/about_us/water_boards_structure/index.shtml [<https://perma.cc/X9F8-QDEU>] (last updated July 5, 2012). For a discussion of the current state of California’s water conservation rates, along with the State Water Board’s oversight of these mandated cuts, see Matt Stevens, *California Cut Water Use 18.3% in December, Still Barely Meeting Gov. Brown’s Mandate*, L.A. TIMES (Feb. 2, 2016, 10:59 AM), <http://www.latimes.com/local/lanow/la-me-ln-water-conservation-20160202-story.html> [<https://perma.cc/LJY4-UKJP>] (“As state water regulators consider extending drought restrictions through [sic] the fall, officials reported Tuesday that urban Californians had reduced their water use by 18.3% during December.”).

62. See *Water Board’s Structure*, *supra* note 61 (“The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the State’s waters.”). Interestingly, Colorado has a similar government agency called the Colorado Division of Water Resources that “administers water rights, issues water well permits, represents Colorado in interstate water compact proceedings,” and more. *Colorado Division of Water Resources*, Dep’t of Nat. Res., <http://water.state.co.us/Home/Pages/default.aspx> [<https://perma.cc/3PLT-8BUM>] (last visited Nov. 9, 2016).

objectives and implementation plans” that best secure beneficial use of the state’s water, while also taking local differences into account—including climate, topography, geology, and hydrology.⁶³ Both the State Water Board and nine Regional Water Quality Control Boards were created by and are controlled by the state legislature, and focus on protecting and enforcing beneficial water use.⁶⁴

The State Water Board “shall allow the appropriation for beneficial purposes of unappropriated water under such terms and conditions as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated.”⁶⁵ To determine whether to appropriate water, the State Water Board must consider the relative benefit from all beneficial uses of the water and the reuse or reclamation of such water.⁶⁶ Therefore, the State Water Board controls whether permits are issued to appropriators and must take into account the reasonable use standard in California’s constitution.⁶⁷

California provides its water supply through local agencies like municipal water systems and special districts, and many areas depend on imported

63. *Water Board’s Structure*, *supra* note 61. See Walt Kelly, *California Water Today*, PUB. POL’Y INST. OF CAL. 71, 72, http://www.ppic.org/content/pubs/report/R_211EHChapter2R.pdf [<https://perma.cc/F39A-8XSS>] (discussing regional average annual water availability, storage, and use, for an example of the differences in hydrology across California); *id.* at 75 (discussing the water availability and net water use across the state); *id.* at 81 (discussing California’s system of water conveyance and storage as controlled by differed agencies).

64. See *Water Board’s Structure*, *supra* note 61; see also Bettina Boxall et al., *State Water Board Issues Revised Drought Regulations for Californians*, L.A. TIMES (Apr. 18, 2015, 5:55 PM), <http://www.latimes.com/local/california/la-me-drought-regulations-20150419-story.html> [<https://perma.cc/4PJP-8ZKJ>] (“‘We’re going to be up-to-our-eyeballs engaged with these agencies to see how their doing,’ stated Felicia Marcus of the State Water Resources Control Board.”); *id.* (stating that the State Water Board issued a new proposal that enabled the regulators to impose more outdoor watering restrictions, change water rates, and fine agencies for noncompliance); *id.* (suggesting that the proposal evidences the Board’s vast regulatory power).

65. CAL. WATER CODE § 1253 (West 2009).

66. See CAL. WATER CODE § 1257 (West 2009) (“The board may subject such appropriations to such terms and conditions as in its judgment will best develop, conserve, and utilize in the public interest, the water sought to be appropriated.”); CAL. WATER CODE § 275 (West 2009) (“The department and board shall take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state.”).

67. CAL. CONST. art. X, § 2; see Paul M. Bartkiewicz et al., *A Summary of the California Law of Surface Water and Groundwater Rights*, N. CAL. WATER ASS’N (2016), http://www.norcalwater.org/wp-content/uploads/bks_water_rights.pdf [<https://perma.cc/QFL9-YSXU>] (stating that California Water Code section 275 authorizes the Department of Water Resources and the State Water Board to take all appropriate proceedings to prevent waste on unreasonable use or diversion, method of use, or diversions before executive, legislative, or judicial agencies).

water supplies from the State Water Project (SWP).⁶⁸ The State of California controls the reliability of the SWP, created in 1959, which is effective but lacks influence over entities that have control of their own water supply.⁶⁹ The state and federal governments provide water through the SWP and the Central Valley Project (CVP) respectively.⁷⁰ The SWP is the nation's largest state-built water and power development and conveyance system, which collects, stores, and pumps water to twenty-nine water agencies.⁷¹ The Project is highly developed and intricate, and has cost billions of dollars to build and operate.⁷² The federal CVP coexists with California's state-run State Water Project; both projects are "managed pursuant to a Coordinated Operating Agreement," and both projects are governed by State Water Board issued water rights permits and by "biological opinions" from two separate federal agencies.⁷³ The CVP is operated by the United States Bureau of Reclamation,

68. See CAL. WATER CODE §§ 12930–12944 (West 2009). For a detailed discussion of how water travels through delivery systems in California to reach its citizens, see *California State Water Project Today*, DEP'T OF WATER RES., http://www.water.ca.gov/swp/swp_today.cfm [<https://perma.cc/2AV5-BBJ7>] (last modified July 18, 2008) ("[The SWP] includes facilities—pumping and power plants; reservoirs, lakes, and storage tanks; and canals, tunnels and pipelines—that capture, store, and convey water to 29 agencies.").

69. See WATER §§ 12930–12944; see Richard Rapaport, Comment, *Crisis at Kesterson: A Review of San Joaquin Valley Agricultural Drainage Problems and Possible Solutions*, 5 UCLA J. ENVTL. L. & POL'Y 187, 190 n.11 (1986) ("Passage of the Burns-Porter Act in 1960 (Cal. Water Code §§ 12930-12944.5), which authorized the State Water Project, called for the Department of Water Resources (DWR) to jointly build a master drain with BUREC.").

70. See Gray et al., *supra* note 46, at 1606 ("The state and federal governments provide water on a large scale through the State Water Project and Central Valley Project, and also build and maintain various flood works."). For a description of the Central Valley Project, see *California State Water Project and the Central Valley Project*, DEP'T OF WATER RES., <http://www.water.ca.gov/swp/cvp.cfm> [<https://perma.cc/3JBD-JB6K>] (last modified Apr. 29, 2008) ("Today the Central Valley Project, operated by the U.S. Bureau of Reclamation, is one of the world's largest water storage and transport systems.").

71. See *California State Water Project Today*, *supra* note 68 ("By the end of 2001, about \$5.2 billion had been spent to construct SWP facilities.").

72. See *The State Water Project*, STATE WATER CONTRACTORS, <http://www.swc.org/issues/state-water-project/history-of-the-state-water-project> [<https://perma.cc/6LPV-SRS6>] (last visited Nov. 9, 2016) (stating that water from the project serves more than two-thirds of California's residents, irrigates more than 750,000 acres of farmland, and directly sustains \$400 billion of the statewide economy); see also *California State Water Project Milestones*, DEP'T OF WATER RES., <http://www.water.ca.gov/swp/milestones.cfm> [<https://perma.cc/28U4-866A>] (last modified Apr. 29, 2008) (stating that in 1960, California voters approved \$1.75 billion in general obligation bonds to finance construction of the State Water Project).

73. See Gray, *supra* note 33, at 346 ("The major Delta exporters, the Central Valley Project (CVP) and State Water Project (SWP), are owned by two sovereign governments, managed pursuant to a Coordinated Operating Agreement, and governed both by water rights

and is another large water storage and transport system.⁷⁴ The SWP supplies water to “two-thirds of the state’s population,” which includes people who use it for drinking water and “farmers who use it to irrigate 75,000 acres of cropland.”⁷⁵

The SWP was largely a state effort, paid for through the sale of bonds and funds from the California Water Fund, as well as regional agencies.⁷⁶ Now, states like Colorado that seek to emulate the SWP for solutions to their own water problems cannot receive sufficient assistance from the federal government because the Bureau of Reclamation and Army Corps of Engineers lack the budgets or mandates for such projects.⁷⁷ California should take advantage of the unique opportunity it has to regulate and manage the state’s water supply with the SWP.

permits issued by the State Water Resources Control Board (SWRCB) and by biological opinions from two separate federal agencies.”); *see also Central Valley Project*, WATER EDUC. FOUND., <http://www.watereducation.org/topic-central-valley-project> [https://perma.cc/NGD7-AUD8] (last visited Nov. 10, 2016) (“Constructed long ago by federal effort to help create farmland, the Central Valley Project is one of the biggest water and transport systems in the entire world.”).

74. *See* Gray, *supra* note 33, at 346–48 (“But one consequence [of this fragmented management and regulation] stands out: The absence of a forum or process to address the multiplicity of stressors means that regulation of one problem is likely to focus on one or a few sources to the exclusion of other contributing causes.”); *see also California State Water Project and the Central Valley Project*, *supra* note 70; Erin Curtis, *Reclamation Announces Biological Opinions 2014 Annual Science Review and Workshop for the Long-Term Operation of the CVP/SWP*, RECLAMATION (Oct. 30, 2014), <http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=48073> [https://perma.cc/JR29-2M3A] (“The 2014 annual science review will be the fifth annual review.”).

75. Lisabeth D. Rothman, *The Water of Life: Litigation Over Water Rights has Tested the Competing Interests of Environmentalists, Farmers, and Cities*, 37 L.A. LAW. 28, 30 (2014) (“[The SWP] is implemented through delivery contracts to 29 agricultural and municipal water supply agencies known as the SWP contractors.”). For a discussion of the ecological impacts of the SWP, *see* Shampa A. Panda, *On Fish and Farms: The Future of Water in California’s Central Valley After San Luis & Delta-Mendota Water Authority v. Jewell*, 42 ECOLOGY L.Q. 397, 401–02 (2015) (“There have been a number of competing demands on CVP and SWP water in recent years that have contributed to deteriorating ecological conditions in the Bay-Delta.”).

76. *California State Water Project Overview*, CAL. DEP’T OF WATER RES., <http://www.water.ca.gov/swp/> [https://perma.cc/6W27-P2MU] (last modified Aug. 11, 2010); *History of the State Water Project*, *supra* note 72 (“In 1960, California voters approved \$1.75 billion in general obligation bonds to finance construction of the State Water Project.”).

77. Susan Greene, *WHAT’S THE PLAN? Second Draft of State Water Plan Lacks Actionable Solutions to Looming Shortfall, Critics Say*, COLO. INDEPENDENT (Sept. 4, 2015), <http://www.coloradoindependent.com/155178/whats-the-plan-second-draft-of-state-water-plan-lacks-actionable-solutions-to-looming-shortfall-critics-say> [https://perma.cc/YQ7G-ANKS] (“Emulating those partnerships is unlikely now that the Bureau of Reclamation and Army Corps of Engineers no longer have the budgets or mandates for projects that would be as legally risky and expensive as they are politically divisive.”).

*C. Water Legislation is Moving in the Right Direction of
Overarching State Control*

Water legislation has historically arisen after almost every major drought in California.⁷⁸ Some important California water policy includes the Burns-Porter Act of 1959, which authorized \$1.75 billion in bonds to develop the SWP; the creation of the State Water Resources Control Board in 1967, which regulates water rights and water quality; the Porter-Cologne Water Quality Act of 1969, which provides California's first comprehensive body of water quality law; the Delta Reform Act in 2009, which establishes policy goals and new management structure for the Delta; and finally, the Sustainable Groundwater Management Act of 2014, which provides authority for local agencies to adopt groundwater management plans.⁷⁹ California has experienced

78. CAL GOV'T CODE § 66455.3 (West 2009) ("A tentative map application for a proposed subdivision . . . shall [be sent] to any [potential] water supplier."); CAL GOV'T CODE § 66473.7 (West 2009) (defining, most notably, subdivision and water supply); CAL. WATER CODE § 10631(a) (West 2009) ("[A plan shall] [d]escribe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning."); CAL. WATER CODE §§ 10720–10736.6 (West Supp. 2016); CAL. WATER CODE §§ 10750 et seq. (West 2009) (explaining that certain defined existing local agencies are allowed to develop a groundwater management plan in groundwater basins); JEANINE JONES, CAL. DEP'T OF WATER RES., CALIFORNIA'S MOST SIGNIFICANT DROUGHTS: COMPARING HISTORICAL AND RECENT CONDITIONS 1, 64–65 (2015), http://www.water.ca.gov/waterconditions/docs/California_Significant_Droughts_2015_small.pdf [<https://perma.cc/CWT6-B3WE>] (noting that after the 1987–1992 drought, California voters approved major water bonds providing funding for water management); *id.* (noting that the bonds included Proposition 204 in 1996 for \$995 million, Proposition 13 in 2000 for \$2.1 billion, Proposition 50 in 2002 for \$3.44 billion, Proposition 84 in 2006 for \$5.388 billion, Proposition 1E in 2006 for \$4.09 billion, and Proposition 1 in 2014 for \$7.14 billion); *Water Facts and Spending*, LEGISLATIVE ANALYST'S OFFICE, <http://www.lao.ca.gov/Resources/Water> [<https://perma.cc/A9N6-WGB8>] (last visited Nov. 12, 2016) (explaining that some of the major drought years in California occurred in 1976–1977, 1987–1990, 2000–2002, 2007–2009, and 2012–present).

79. *Water Facts and Spending*, *supra* note 78. Major state water legislation since 1980 includes: (1) the 2001 "Show Me the Water" laws, which require local government verify long-term water availability for new development with local water supplies; (2) the 2007 Central Valley Flood Control Package, which includes general plans and zoning ordinances to comply with the state plan of flood control, as well as placing liability on local governments for floods in new urban development, and; (3) the 2009 Water Policy Package, which imposed a new governance structure for the Sacramento-San Joaquin Delta, the development of a delta plan, and recognition of reasonable use and the public trust as the foundation of California water resources management, as well as required local agencies to monitor groundwater basin elevation. Kelly, *supra* note 63, at 71, 112.

major droughts in 1966, 1968, from 1976 to 1977, from 1987 to 1992, from 2006 to 2009, and from 2011 to the present.⁸⁰

The state legislature introduced the Sustainable Groundwater Management Act of 2014 to preserve the future of California's groundwater resources by limiting unsustainable water uses in areas at risk for overdraft due to the drought.⁸¹ Therefore, the Sustainable Groundwater Management Act prohibits the issuance of permits in areas that cannot handle water extraction.⁸² This Act gives local agencies sustainable plans and guidelines for managing groundwater, where prior to the Act, local agencies had no groundwater management or oversight capabilities.⁸³ A local public agency that elects to become a groundwater sustainability agency (GSA) for the area is then granted broad powers to implement the law.⁸⁴ However, if the GSA fails

80. Adam Krotin & Dru Marion, *A History of Drought in California: Learning from the Past, Looking to the Future*, CIVIL EATS (Feb. 5, 2014), <http://civileats.com/2014/02/05/a-history-of-drought-in-california-learning-from-the-past-looking-to-the-future/> [<https://perma.cc/R9SB-WDHA>] (explaining that California has suffered major droughts in 1928–1935, 1947–1950, 1959–1960, and 1976–1977, with many subsequent dry periods, notably in 2007–2009, until the current drought); Paul Rogers, *California Drought: Past Dry Periods Have Lasted More Than 200 Years, Scientists Say*, MERCURY NEWS (Jan. 25, 2014, 9:23 AM), http://www.mercurynews.com/science/ci_24993601/california-drought-past-dry-periods-have-lasting-more [<https://perma.cc/QW24-8XZG>] (“The longest droughts of the 20th century, what Californians think of as severe, occurred from 1987 to 1992 and from 1928 to 1934.”); *id.* (“Both [of the longest recent droughts], Stine said, are minor compared to the ancient droughts of 850 to 1090 and 1140 to 1320.”); *Water Facts and Spending*, *supra* note 78 (noting that the most significant statewide droughts according to their period of recorded hydrology occurred during 1928–1934, 1976–1977, 1987–1992, and 2007–2009); see Kyle Kim & Thomas Suh Lauder, *Infographic 215 Drought Maps Show Just how Thirsty California has Become*, L.A. TIMES (Sept. 26, 2016), <http://www.latimes.com/local/lanow/la-me-g-california-drought-map-htmlstory.html> [<https://perma.cc/5M9Z-AKWS>] (providing a compilation of drought maps to express California's increasing state of drought).

81. Sustainable Groundwater Management Act, 2014 Cal. Stat. ch. 347, 348 (codified at CAL. WATER CODE §§ 10720 et seq. (West Supp. 2016)).

82. *Id.*

83. *Sustainable Groundwater Management*, CAL. GROUNDWATER, <http://groundwater.ca.gov/> [<https://perma.cc/DA5K-ZUZW>] (last modified May 23, 2016) (“For the first time in California history, the Sustainable Groundwater Management Act (SGMA) empowers local agencies to adopt groundwater management plans that are tailored to the resources and needs of their communities.”); *Sustainable Groundwater Management*, ASS'N OF CAL. WATER AGENCIES, <http://www.acwa.com/content/groundwater/groundwater-sustainability> [<https://perma.cc/7KPR-UBWD>] (last visited Nov. 10, 2016) (explaining that under the Sustainable Groundwater Management Act of 2014, state intervention is allowed only if necessary to protect groundwater resources).

84. Kathryn L. Oehlschlager, *The New Age of Water Regulation—Who Will Float to the Top?*, 41 S.F. ATT'Y 14, 16 (2015) (“In response [to overdraft of California's aquifers], on September 16, 2014, the state legislature passed and Governor Brown signed a package of three bills that collectively constitute SGMA, creating an entirely new regulatory scheme governing extraction and use of California's groundwater.”); *id.* (“The law will be implemented through a local public agency that elects to become a groundwater sustainability agency (GSA) for the area.”).

to adequately manage a water basin, the State Water Board has the authority to manage the basin until the GSA has a new plan.⁸⁵ Therefore, although cities and regions now have the power to control groundwater management, the State of California has the overarching power to set the appropriate standards and review the cities' work.⁸⁶

Legislation continues to address the current drought. The summer of 2015 marked the fourth consecutive driest "water year" in California's notorious, drought-ridden history.⁸⁷ In response to the water shortage, the SWP only provided twenty percent of requested water deliveries in 2015.⁸⁸ California's Governor Jerry Brown declared the drought an emergency in January 2014, and in 2015, he issued an executive order that mandated residents and businesses to reduce water use by twenty-five percent.⁸⁹ While

85. Oehlschlager, *supra* note 84 ("GSAs are granted broad powers, including the ability to require groundwater well registration, measurement of groundwater extraction, and filing of annual extraction reports."); *Triggering State Intervention*, CAL. WATER BODS., http://www.waterboards.ca.gov/water_issues/programs/gmp/docs/sgma/state_intervtriggers_fs.pdf [<https://perma.cc/MY3N-UBDP>] (last updated Oct. 12, 2015) ("Under a limited set of circumstances, the State Water Resources Control Board may step in to help protect local groundwater sources."); *id.* ("The earliest the State Water Board can implement State Intervention is 2017, when local agencies in high- and medium-priority basins must form GSAs.").

86. Oehlschlager, *supra* note 84, at 14; *Sustainable Groundwater Management*, *supra* note 83 ("[The Sustainable Groundwater Management Act] provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention only if necessary to protect the resource."); *id.* (explaining that although California has a "limited role," this does not change the fact that local agencies are ultimately answerable to the state).

87. *2016 Drought Watch*, ASS'N OF CAL. WATER AGENCIES, <http://www.acwa.com/content/drought> [<https://perma.cc/ST33-BHDX>] (last visited Nov. 10, 2016) ("In 2015, as local water agencies responded to a fourth year of historic drought, ACWA launched a new interactive gallery to showcase the plethora of local agency drought response activities by ACWA members statewide."); *Explanations for the National Water Conditions*, U.S. GEOLOGICAL SURVEY, http://water.usgs.gov/nwc/explain_data.html [<https://perma.cc/HDD8-TAYQ>] (last modified Feb. 10, 2016) ("The term U.S. Geological Survey 'water year' in reports that deal with the surface-water supply is defined as the 12-month period October 1, for any given year through September 30, of the following year.").

88. Oehlschlager, *supra* note 84, at 15; Amy Quinton, *State Water Project to Deliver More Water This Year*, CAP. PUB. RADIO (Jan. 26, 2016), <http://www.capradio.org/articles/2016/01/26/state-water-project-to-deliver-more-water-this-year/> [<https://perma.cc/Z64R-78LY>] ("The California Department of Water Resources says it will increase water deliveries to meet 15-percent of requests, up from 10 percent in December."); *id.* ("Last year, the State Water Project was able to meet 20 percent of requests for water.").

89. Exec. Order No. B-29-15 (Apr. 1, 2015), https://www.gov.ca.gov/docs/4.1.15_

some describe Governor Brown's order as a "heavy-handed" approach to water management, his order was necessary to address the severity of the drought.⁹⁰ Governor Brown rightly declares California's current situation as a "state of emergency" in the order, which requires the State Water Board to restrict the use of potable water on campuses, golf courses, cemeteries, and prohibit irrigation of street medians with potable water.⁹¹ The order also requires the State Water Board to "direct urban water suppliers to develop rate structures and other pricing mechanisms . . . to maximize conservation."⁹² Regulators are also imposing fines on communities that consistently fail to meet water reduction goals.⁹³ Although the state can impose fines on communities that overuse water as Governor Brown recommends, imposing consequences after the water has already been wasted is not an adequate solution.⁹⁴ If the state was in total control of water management rather than private water rights holders, water use could be more efficient. California

Executive_Order.pdf [https://perma.cc/J89D-3EQ9]; Sharon Bernstein, *California Met Water Conservation Goals for August, State Says*, REUTERS (Oct. 1, 2015, 12:44 PM), <http://www.reuters.com/article/us-usa-drought-idUSKCN0RV56X20151001> [https://perma.cc/6SUH-DTK8].

90. Oehlschlager, *supra* note 84, at 14 ("The order takes a heavy-handed approach to managing urban water use, mandating reductions in statewide use compared to 2013 levels."); *Facts About the Sustainable Groundwater Management Act from Kahn, Soares & Conway*, KAHN, SOARES & CONWAY, LLP, <http://www.ksclawyers.com/sustainable-ground-water-management-act-for-california> [https://perma.cc/C783-98Q2] (last visited Nov. 10, 2016) (describing the Sustainable Groundwater Management Act as ambiguous and problematic because it gives the state significant authority in "monitoring the extraction of groundwater and [the] imposition of fees.").

91. Exec. Order No. B-29-15 (Apr. 1, 2015), https://www.gov.ca.gov/docs/4.1.15_Executive_Order.pdf [https://perma.cc/6SUH-DTK8]; Oehlschlager, *supra* note 84, at 15 ("It requires the State Water Resources Control Board (State Water Board) to impose restrictions on use of potable water on campuses, golf courses, and cemeteries, and to prohibit irrigations of street medians with potable water."); *see also Implementing the Sustainable Groundwater Management Act: The Importance of Local Agency and Stakeholder Participation*, MAVEN'S NOTEBOOK (Jan. 6, 2016), <http://mavensnotebook.com/2016/01/06/implementing-the-sustainable-groundwater-management-act-the-importance-of-local-agency-and-stakeholder-participation/> [https://perma.cc/A3GG-ETQM] (discussing that public meetings are scheduled to understand the "issues and challenges from the stakeholder perspective" regarding the groundwater sustainability plan regulations).

92. Exec. Order No. B-29-15 (Apr. 1, 2015), https://www.gov.ca.gov/docs/4.1.15_Executive_Order.pdf [https://perma.cc/6SUH-DTK8].

93. Kristin J. Bender, *California Fines Water Suppliers for Failure to Cut Back*, BUS. INSIDER (Oct. 30, 2015, 8:45 PM), <http://www.businessinsider.com/ap-california-fines-water-suppliers-for-failure-to-cut-back-2015-10> [https://perma.cc/V329-53B5] ("The \$61,000 fines are being imposed on Beverly Hills, Indio, Redlands and the Coachella Valley Water District."); Bernstein, *supra* note 89.

94. Associated Press, *California Gov. Jerry Brown Wants \$10,000 Fines For Water Wasters*, USA TODAY (Apr. 29, 2015, 4:11 AM), <http://www.usatoday.com/story/news/nation/2015/04/29/jerry-brown-water-wasters-10000/26559955/> [https://perma.cc/LA74-4H8M] (noting that Governor Brown recommended fining residents and businesses that waste the most water as part of a legislative proposal to expand water restriction enforcement).

also cannot rely on the hope of rainfall to resolve all of the state's persistent water shortage problems.⁹⁵ Governor Brown's order evidences that the state is already increasing its control over water use to combat the persistent drought.⁹⁶ This increase in control will likely only lead to more state control over water resources, which could be authorized via an amendment to the California Constitution specifically enabling this power.

D. Land Use Planning Laws Do Not Yet Synchronize With Water Laws

When California's population expanded rapidly in the mid-1900s, and water resources became scarce, zoning and land-planning strategies became prevalent.⁹⁷ Land developers began claiming water rights through prescription.⁹⁸ Under prescription, water rights vest after five years of open, notorious, and

95. CAL. CONST. art. X, § 2; Associated Press, *supra* note 94 ("California is in its fourth year of drought, and state officials fear it may last as long as a decade."); *see also* FIRMACION & RASKIN, *supra* note 6, at 19 ("After yet another rainless winter, Californians must confront the fact that drought might be the new normal."); Dennis Dimick (@ddimick), TWITTER (Feb. 11, 2016, 4:46 AM), <https://twitter.com/ddimick/status/697763631811948544?lang=en> [<https://twitter.com/ddimick/status/697763631811948544?lang=en>] ("Research: Dry is the new normal in Southwest U.S.").

96. *See* Exec. Order No. B-29-15 (Apr. 1, 2015), https://www.gov.ca.gov/docs/4.1.15_Executive_Order.pdf [<https://perma.cc/6SUH-DTK8>]; Paul Rogers, *California's Drought: How Will We Know When It's Over?*, MERCURY NEWS (Jan. 9, 2016, 9:40 AM), http://www.mercurynews.com/drought/ci_29364616/california-drought-how-will-we-know-when-its [<https://perma.cc/UB5K-79FQ>] ("But for [the drought to end this year], as California enters the fifth year of the worst drought in the state's history, rains will have to continue arriving in pounding, relentless waves through April to fill depleted reservoirs and dry rivers and push the Sierra snowpack to at least 150 percent of normal.").

97. FIRMACION & RASKIN, *supra* note 6, at 15 ("In the middle of the twentieth century, . . . land planners began to use land-planning strategies such as zoning and general plans to ensure that future growth fit into a comprehensive plan."); *see A Brief History of Planning & Zoning in Los Angeles*, L.A. DEP'T OF CITY PLANNING (Jan. 6, 2014), <http://recode.la/updates/news/brief-history-planning-zoning-los-angeles> [<https://perma.cc/36M3-969Z>] ("United States Army Engineer Lieutenant E.O.C. Ord completes the City's first official survey and mapping [in 1849] under American rule.").

98. CAL. CIV. CODE § 1007 (West 2007); CAL. CIV. PROC. CODE § 321 (West 2006); *Peck v. Howard*, 73 Cal. App. 2d 308, 311 (Ct. App. 1946) (applying a five-part test to determine if the landowner had a prescriptive water right, including whether the use was 1) actual, 2) open and notorious, 3) hostile and adverse to the original owner's title, 4) continuous and uninterrupted, and 5) under a claim of title); FIRMACION & RASKIN, *supra* note 6, at 15; *see* Winnifred C. Ward, *Shattered Plans: Amending a General Plan Through the Initiative Process*, 26 U.C. DAVIS L. REV. 1005, 1006 (1993) ("Problems arise when growth-control initiatives conflict with a city's general plan." (citation omitted)).

continuous use of water that belongs to someone else, such as a riparian.⁹⁹ Landowners could use prescription because some courts have found that water rights are essentially property rights.¹⁰⁰ According to California law, “all water within the State is the property of the people of the State, but the right to the use of water may be acquired by appropriation in the manner provided by law.”¹⁰¹ Therefore, water rights include the right to *use* water, but not the right to *own* water or a waterway.¹⁰² However, once water rights are acquired, some courts have found that the water rights become vested property rights, and this distinction is important and inconsistent in California water law.¹⁰³ Prescriptive rights were subsequently limited in several California Supreme Court cases, which reinforced the seniority of preexisting water users and the notion that prescriptive water rights holders are subject to the state’s regulatory authority.¹⁰⁴

Land development is still not harmonized with water supplies statewide. Local land use decisions in California have resulted in a “destructive cycle of inefficient use of water, fragmented habitat, destabilized streams, and engineered solutions to disrupted flow patterns.”¹⁰⁵ In California, there are no laws that

99. CIV. § 1007; CIV. PROC. § 321; FIRMACION & RASKIN, *supra* note 6, at 15. Interestingly, many states do not recognize a water right if it is obtained through adverse possession. Robert A. Pulver, Comment, *Liability Rules as a Solution to the Problem of Waste in Western Water Law: An Economic Analysis*, 76 CALIF. L. REV. 671, 676 (1988) (“Prescription claims in water law, however, are difficult to acquire because of the nature of water rights.”).

100. *Ivanhoe Irrigation Dist. v. All Parties*, 306 P.2d 824, 848 (Cal. 1957) (holding that riparian rights are property rights which vest in the owner and are protected by state and federal Constitutions and cannot be limited or impaired without due process and just compensation), *rev’d on other grounds*, *Ivanhoe Irrigation Dist. v. McCracken*, 357 U.S. 275 (1958); *Jurupa Ditch Co. v. San Bernardino Cnty.*, 63 Cal. Rptr. 764, 767 (Ct. App. 1967) (“[A]n appropriative right to take water from a stream is real property, is a fee simple interest and subject to taxation . . .”).

101. CAL. WATER CODE § 102 (West 2009).

102. *Rancho Santa Margarita v. Vail*, 81 P.2d 533, 560 (Cal. 1938) (“The riparian does not ‘own’ the water of a stream—he ‘owns’ a usufructuary—the right of reasonable use of the water on his riparian land when he needs it.”) (citations omitted).

103. *Ivanhoe Irrigation Dist.*, 306 P.2d at 848; *Jurupa Ditch Co.*, 63 Cal. Rptr. at 767; see Sarah Wilson, *Private Property and the Public Trust: A Theory for Preserving the Coastal Zone*, 4 UCLA J. ENVTL. L. & POL’Y 57, 58 (1984) (“The clash between public needs and private rights has made clear the need to reevaluate traditional notions of private property.”).

104. See, e.g., *City of Barstow v. Mojave Water Agency*, 5 P.3d 853, 863 (Cal. 2000) (“One with overlying rights has rights superior to that of other persons who lack legal priority, but is nonetheless restricted to a reasonable beneficial use.”); *People v. Shirokow*, 605 P.2d 859, 866 (Cal. 1980) (holding that the defendant could not divert water owned by the state without first obtaining a permit from the State Water Board); FIRMACION & RASKIN, *supra* note 6, at 16.

105. *Addressing the Disconnect: Water Resources and Local Land Use*, LOCAL GOV’T COMM’N (2015), <http://www.lgc.org/resources/water/disconnect/> [<https://perma.cc/SP3Q->

specifically prohibit land development when there is no adequate water supply to support a new development.¹⁰⁶ However, counties and cities must adopt a “general plan” for their own physical development, which includes a “conservation element” for the conservation, development, and utilization of natural resources, including water.¹⁰⁷ The water portion of the conservation element must be “coordinated” with water agencies.¹⁰⁸ The conservation element of the general plan includes an assessment of water supply and demand.¹⁰⁹ To assuage the problem of coordinating water conservation while allowing for land development, “Show Me the Water laws” were enacted in 2001, which require land developers to conduct a “water supply assessment” before building large-scale developments.¹¹⁰ However, water regulators

3EX6] (last visited Nov. 10, 2016). For a basic overview of the land planning process for local elected and appointed officials and the general public, see Steve Sanders, et al., *Understanding the Basics of Land Use and Planning*, INST. FOR LOCAL GOV'T (2010), http://www.ca-ilg.org/sites/main/files/file-attachments/2010_-_LandUsePlanning_w.pdf [https://perma.cc/HL4U-BUUP] (“The guide describes the typical participants in the planning process and the major plans and policies that comprise the framework of local planning.”).

106. FIRMACION & RASKIN, *supra* note 6, at 19 (“Although California has taken some steps to align land planning with water management, these two areas of regulation remain disconnected in many respects.”).

107. See CAL. GOV'T CODE §§ 65302–65303.4 (West 2010 & Supp. 2016). For an example of San Diego's Land Use Element in the city's General Plan, see *Land Use Element*, COUNTY OF SAN DIEGO GEN. PLAN 1, 44 (2011), <http://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/GP/LandUseElement.pdf> [https://perma.cc/DE49-K4B5] (last visited Nov. 10, 2016) (“Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply.”).

108. GOV'T § 65302(d)(1). Interestingly, Texas has a similar coordination requirement in its Municipal Codes. See HIGHLAND VILLAGE, TEX. CODE OF ORDINANCES ch. 28, art. II, § 11(a) (2009), <http://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=highlandvillageset> [https://perma.cc/AX7X-VW44] (“The purpose of the [site plan] review is to ensure efficient and safe land development, harmonious use of land, . . . and adequate water supply.”).

109. GOV'T § 65302(d)(1) (“A conservation element for the conservation, development, and utilization of natural resources including water.”); *id.* (“The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element.”). For a discussion of water supply and demand in California, see *Water Supply and Demand*, UNIV. OF CAL. AGRIC. ISSUES CTR. (July 2009), https://www.cdfa.ca.gov/agvision/docs/Water_Supply_and_Demand.pdf [https://perma.cc/K5JS-2SNU] (“[U]rban and industrial water demand has risen as the population has continued to grow.”).

110. CAL. GOV'T CODE § 66455.3 (West 2009); CAL. GOV'T CODE § 66473.7 (West 2009 & Supp. 2016); CAL. WATER CODE § 10631 (West 1992 & Supp. 2016); Ellen Hanak, *Show Me the Water Plan: Urban Water Management Plans and California's Water Supply Adequacy Laws*, 4 GOLDEN GATE U. ENVTL. L.J. 69, 70 (2010) (“[Show me the water laws] aim to forge an often missing link in California's local planning process.”); see Barry Epstein, *Friant Dam Holding Contracts: Not an Entitlement to Water Supply Under SB 610*, 4 GOLDEN GATE U. ENVTL. L.J. 91, 93 (2010) (“Thus, a water supply assessment is

cannot stop land development even if it adversely affects water supply.¹¹¹ Therefore, when the state lacks the necessary control to require local land developers and water resource managers to coordinate with each other, it creates major issues and depletes water resources.¹¹² This is becoming an increasingly grave situation as California's growth and urbanization are projected to increase dramatically.¹¹³

III. THREE THEORIES SUPPORT THE PROPOSED LEGISLATIVE CHANGES TO CENTRALIZE WATER RIGHTS AND CREATE UNIFORMITY IN FUTURE LAND DEVELOPMENT

The California state legislature should have the power to take direct control of private water use rights to ensure efficient water use throughout the state. The legal justifications include the public trust doctrine, the doctrine of eminent domain, and use regulations.

A. *California Should Reclaim Private Water Use Rights*

The state must take complete control of private water use rights to ensure that the state's water is put to reasonable and beneficial use.¹¹⁴ This will end inefficient water use and distribution, such as the approval of new land development where water is scarce, especially in this period of drought.¹¹⁵

required when there is a 'project' within the meaning of SB 610 and when review is required for that project under the California Environmental Quality Act (CEQA).").

111. GOV'T § 66455.3; GOV'T § 66473.7; WATER § 10631; *see* FIRMACION & RASKIN, *supra* note 6, at 19; *see About Smart Growth*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/smartgrowth/about-smart-growth> [<https://perma.cc/BY4A-255P>] (last updated July 19, 2016) (explaining that smart growth, development and conservation strategies that protect the environment, is the EPA's program intended to protect water and other natural resources across the United States).

112. *See* FIRMACION & RASKIN, *supra* note 6, at 19.

113. *Addressing the Disconnect: Water Resources and Local Land Use*, *supra* note 105 ("The California Department of Finance's projections are for 15% population growth by 2010, 31% by 2020, and 69% by 2040"); *see* Dan Walters, *Census Bureau Says California the Most Urbanized State*, SACRAMENTO BEE (Mar. 26, 2012, 10:48 AM), <http://blogs.sacbee.com/capitolalert/latest/2012/03/census-bureau-says-california-the-most-urbanized-state.html> [<https://perma.cc/G5EZ-NSV4>] ("California may lead the nation in agricultural production, but being a society of great contrasts, it's also the nation's most urbanized state, according to a new Census Bureau report."); *id.* ("The nation's four most densely populated urban areas are in California.").

114. CAL. CONST. art. X, § 2; *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 171 (Ct. App. 1986) ("The courts have construed [the 'rule of reasonable use'] as a valid exercise of the police power of the state to regulate the use and enjoyment of water rights for the public benefit." (citations omitted)).

115. *See* James, *supra* note 2; *see Key Facts About Growth and California's Water Supplies*, LOCAL GOV'T COMM'N, http://www.lgc.org/wordpress/docs/resources/water/water_livable_communities.pdf [<https://perma.cc/7LED-3TL6>] (last visited Nov. 10, 2016) ("According

California could distribute water more efficiently if the state took more direct control of private water use rights existing in the state, especially including senior water rights. For example, riparians can reasonably use water; however, riparians, by virtue of living close to a water supply, undoubtedly have easy access to water and can use a limitless amount of water.¹¹⁶ Senior water rights, however, are not as legally secure as once believed, because in addition to the existing use of “conservation,” “curtailment” is becoming an “emerging term in the water lexicon,” as California law allows the State Water Board to enforce its emergency water regulations through cease-and-desist orders and fines on water use.¹¹⁷ Senior water rights may thus legally be curtailed to preserve water.¹¹⁸ The SWP is already taking initiative with water deliveries to senior water rights holders.¹¹⁹ For example, the SWP is only delivering about twenty percent

to the U.S. EPA and the California State Water Resources Control Board, the greatest single threat to local water supplies is growth.”); *see, e.g.*, Frank Deford, *Water-Thirsty Golf Courses Need to go Green*, NAT’L PUB. RADIO (June 11, 2008, 12:01 AM), <http://www.npr.org/templates/story/story.php?storyId=91363837> [<https://perma.cc/6WKW-HBXH>] (“Audubon International estimates that the average American course uses 312,000 gallons per day.”).

116. CAL. CONST. art. X, § 2 (“[B]ecause of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented.”); *see State Water Res. Control Bd.*, 227 Cal. Rptr. at 171 (“This ‘rule of reasonable use’ is now the cardinal principle of California’s water law.”); *Peabody v. City of Vallejo*, 40 P.2d 486, 498–99 (Cal. 1935) (finding that the constitutional limitation applies “to all water rights enjoyed or asserted in this state, whether the same be grounded on the riparian right or . . . the appropriative right”); *Miller & Lux v. Enter. Canal & Land Co.*, 147 P. 567, 570 (Cal. 1915) (“Under the established law of riparian rights, a title by prescription cannot be acquired against a tract of riparian land by diverting the water from the stream at a point below such land.”).

117. Henderson, *supra* note 38, at 14 (“Therefore, curtailment is another emerging term in the water lexicon, hidden in the story of the 2014 drought and an emotional challenge for water rights holders, formerly confident that their rights were secure.”).

118. Dale Kasler & Ryan Sabalow, *California Curtails Senior Water Rights*, SACRAMENTO BEE (June 12, 2015, 9:31 AM), <http://www.sacbee.com/news/state/california/water-and-drought/article23849281.html> [<https://perma.cc/ZE4Y-2HLT>] (explaining that the State Water Resources Control Board ordered farmers and municipal users with senior water rights to stop pulling water out of California’s rivers, a controversial move that will be followed by fining noncompliant rights holders and litigation by others); *see Henderson, supra* note 38, at 14.

119. SINA DARABZAND, CAL. NAT. RES. AGENCY, MEMORANDUM: STATE WATER PROJECT DELIVERY CAPABILITY REPORT 2015, at 2, 20, 23 (July 1, 2015), <https://msb.water.ca.gov/documents/86800/144575dd-0be1-4d2d-aeff-8d7a2a7b21e4> (explaining that State Water Project exports have decreased since 2005, and under existing conditions, the average annual delivery of water estimated for this 2015 Report is 2,550 taf/year, 3 taf less than

of requested water deliveries to Central Valley farmers this year to combat the negative consequences of the drought.¹²⁰ California farmers are a major group of pre-1914 appropriators—senior water rights holders who have a seniority claim to water.¹²¹ Although delivering water to farmers is important for California’s croplands, agriculture uses the most water of any other consumer group in the state.¹²² Curtailing and gaining control of this use exemplifies how the State Water Board’s power has already grown to impose cuts and measure how water is used in California, and thus is one step toward increased direct state control of water.¹²³ Because these rights may be curtailed and these rights have the highest priority in the California water rights system, the state should be given the explicit power through a constitutional

the 2,553 taf/year estimated for the 2013 Report); *id.* (noting that “Taf” stands for thousand acre-foot).

120. Oehlschlager, *supra* note 84, at 15 (“For the second year in a row, Central Valley Farmers are expecting no deliveries from the valley’s big federal irrigation project, and the State Water Project will provide only 20 percent of requested deliveries this year.”); Doug Carlson & Ted Thomas, *State Water Project Deliveries Increased Slightly*, CAL. DEP’T OF WATER RES. (Mar. 2, 2015), http://www.water.ca.gov/news/newsreleases/2015/030215_allocation.pdf [<https://perma.cc/3PZQ-5UBC>] (“Few storms have graced California so far this winter, but those that did . . . will allow the California Department of Water Resources (DWR) to increase water deliveries to most customers of the State Water Project (SWP).”); *id.* (“The additional deliveries will increase this year’s SWP allocation from fifteen to twenty percent.”).

121. *Water Rights Process*, *supra* note 22 (“Up to the early 1900’s appropriators—most of them miners and nonriparian farmers—had simply taken control of and used what water they wanted.”); see Alison Verkshin, *California Farmers Fight for Century-Old Claims to Water*, BLOOMBERG POLITICS (July 17, 2015, 2:00 AM), <http://www.bloomberg.com/politics/articles/2015-07-17/california-farmers-fight-for-century-old-claims-to-water> [<https://perma.cc/YV25-Z8ML>] (“California farmers whose families have held rights to water since the Gold Rush are fighting cutbacks sought by [the California State Water Resources Control Board].”).

122. Jennifer Medina, *California Cuts Farmer’s Share of Scant Water*, N.Y. TIMES (June 12, 2015), <http://www.nytimes.com/2015/06/13/us/california-announces-restrictions-on-water-use-by-farmers.html> (“[T]he state now has more authority to impose cuts and a greater ability to measure how water from the Sacramento-San Joaquin River Delta is used.”); *id.* (“Gov. Jerry Brown received repeated and intense criticism after he issued mandatory cuts on urban water use but exempted farmers.”); *id.* (“In a normal year, agriculture uses about 80 percent of the water consumed in the state.”). For a discussion of California’s agricultural industry increase in 2014, see Phillip Reese & Dale Kasler, *California Farms Added Workers in 2014, Even Amid the Drought*, SACRAMENTO BEE (May 19, 2015, 5:01 PM), <http://www.sacbee.com/news/state/california/water-and-drought/article21450660.html> [<https://perma.cc/G8N5-W2KW>].

123. *California Farmers Worry Senior Water Rights Cuts in Drought Could be Devastating*, CBS SACRAMENTO (June 12, 2015, 11:56 PM), <http://sacramento.cbslocal.com/2015/06/12/california-farmers-worry-senior-water-rights-cuts-in-drought-could-be-devastating/> [<https://perma.cc/3ZRU-K9JP>] (“California ordered dramatic cuts to farmers who have water rights dating back more than 100 years . . . the impacts will be felt far and wide.”); see Oehlschlager, *supra* note 84, at 15, 16.

amendment to revoke these rights and redistribute the water in an appropriate and fair method.

The system of seniority in water rights appropriation is not a logical policy in California today.¹²⁴ Simply because some groups of people came to California earlier than others and took control of water should not entitle them to invincible water rights that take seniority over most others.¹²⁵ The prioritization of senior water rights over junior water rights when curtailment is necessary is no longer logical today, and thus the state should take back senior water rights.¹²⁶ Although riparians, for example, have water rights based on their natural proximity to a water source, this does not mean junior water rights holders should sacrifice their right to use water before senior water rights holders' rights are affected at all.¹²⁷ This is an area of law where the state should take control to not only create efficiency in water distribution but to also promote equality among citizens, regardless of whether they live next to a water source.

124. Peter Gleick, co-founder of the Pacific Institute, a think tank that focuses on water issues, commented on the outdated system of senior water rights in California, stating:

The system of senior water rights might have made sense 100 years ago, but given our new realities, it is not going to work in the long run [because the current approach] neither protects the environment nor ensures efficient use of our limited water, it just clarifies who was there first.

Lisa M. Krieger, *California Drought: Farmers' 'Senior' Water Rights Under Siege*, MERCURY NEWS (May 28, 2015, 9:04 AM), http://www.mercurynews.com/drought/ci_28208027/california-drought-farmers-senior-water-rights-under-siege [<https://perma.cc/XZ76-V7GR>]; see *California Water Rights Primer*, CAL. WATER IMPACT NETWORK, <https://www.c-win.org/water-rights-primer.html> [<https://perma.cc/H48P-5E6E>] (last visited Nov. 10, 2016) ("Further, there is a seniority system in place for appropriative water rights holders."); *id.* ("Those with rights resulting from pre-1914 filing claims have priority over all other appropriative water rights holders.").

125. *Water Rights Process*, *supra* note 22 (explaining that junior water rights are curtailed before senior water rights). For an explanation of Colorado's similar curtailment method, see *Water Law*, DENVER WATER, <http://www.denverwater.org/AboutUs/WaterLaw/> [<https://perma.cc/S5ZL-9YNF>] (last visited Nov. 10, 2016).

126. CAL. CONST. art. X, § 5 ("The use of all water now appropriated, or that may hereafter be appropriated . . . is hereby declared to be a public use, and subject to the regulation and control of the State."); Elise O'Dea, Note, *Reviving California's Public Trust Doctrine and Taking a Proactive Approach to Water Management, Just in Time for Climate Change*, 41 *ECOLOGY L.Q.* 435, 453, n.151 (2014).

127. Kurtis Alexander, *5 Fixes for California's Age-Old Water-Rights System*, S.F. CHRON. (Sept. 13, 2015, 3:05 PM) <http://www.sfchronicle.com/bayarea/article/5-fixes-for-California-s-age-old-water-rights-6497184.php> [<https://perma.cc/Z39A-X5QM>] (explaining how the town of Mountain House's water was threatened to be shut off to protect more senior claims to water); *Water Rights Process*, *supra* note 22.

Taking away private water rights could create tension between local and state governmental control; however, this proposal does not suggest eliminating local control, but rather recommends making cities and their constituents answerable to the State Water Board's direct, overarching control. In 1962, the Assembly Water Committee concluded: "water agencies expressed a strong desire to solve their problems and manage groundwater basins locally."¹²⁸ This is likely still true today; however, California is suffering a serious drought and needs more state oversight.¹²⁹ Groundwater is one division of water with influences of both local and state-level government, but would be better managed if the state had more oversight authority. The Sustainable Groundwater Management Act, for example, is a step in the right direction because the state cannot control every small aspect of water development in every city across the state.¹³⁰ Delegating power is a good thing as long as the cities and regions must still answer to the Legislature through the State Water Board. In implementing this Act, the state insists that groundwater is managed at the local level, but the state also asserts its own authority because it can check the local government's

128. ASSEM. INTERIM COMM. ON WATER TO THE CAL. LEGISLATURE, GROUND WATER PROBLEMS IN CAL., 26 ASSEM. INTERIM COMM. REP. 46 (1962). For an example of a

owned water system), see Dr. Adam Davidson-Harden, Susan Spronk, David McDonald, & Karen Bakker, *Local Control and Management of our Water Commons*, ON THE COMMONS 47, 48 (2008) <http://www.onthecommons.org/sites/default/files/WaterCommons08.pdf> [<https://perma.cc/PJ4M-KRSK>].

129. Stevens, *supra* note 25; Pamela Martineau, *Groundwater Fixes Require Local Control with State Backstop, Comprehensive Water Planning, Speakers Say*, ASS'N OF CAL. WATER AGENCIES (June 3, 2014, 4:44 PM), <http://www.acwa.com/news/groundwater/groundwater-fixes-require-local-control-state-backstop-comprehensive-water-planning> [<https://perma.cc/5DVA-FPUF>] ("Improving California's groundwater sustainability requires strong oversight by local entities with backup support from the state, as well as a comprehensive statewide water planning that improves surface water availability."). For an example of one local oversight program by the state government, see *UST Local Oversight Program (LOP) Guidebook*, STATE WATER RES. CONTROL BD. 1, 3 (2010), http://www.swrcb.ca.gov/ust/contacts/docs/lop_guide.pdf [<https://perma.cc/3FFM-5X64>] ("The objective of the LOP Agency Contract is to provide the Contractor with the means to identify and oversee the investigation and remediation of UST petroleum release sites."); *id.* ("The contract is part of the State's overall program, referred to as the Local Oversight Program (LOP), to help assist governmental agencies in oversight and remediation at UST release sites.").

130. See CAL. WATER CODE §§ 10720–10736.6 (West Supp. 2016); Ryan Sabalow, *Tensions, Threats as California's New Groundwater Law Takes Shape*, SACRAMENTO BEE (Nov. 21, 2015, 4:01 PM), <http://www.sacbee.com/news/state/california/water-and-drought/article45802360.html> [<https://perma.cc/S8CC-3KRM>] (explaining how the state's first groundwater regulations called for the creation of new local agencies, state oversight of the local agencies, increased local control, and left many unanswered questions about how exactly the local management agencies should be created).

work.¹³¹ Complete overhaul of all local duties would be overwhelming for the state and would require a massive transformation of management, so this Act is a step in the right direction. The Sustainable Groundwater Management Act also links groundwater to surface water for the first time, recognizing that water is a single resource and should be regulated with one cohesive policy.¹³²

The following is an example of a local battle that inhibited coordinated management of resources, and emphasizes why the state as a single overarching entity should eventually be in total control of water management.¹³³ In 2013, the Southern California Central Basin aquifer had unused groundwater storage space that could be managed to hold more water to support many more families than it did.¹³⁴ At this time, the Basin held enough water to meet the needs of about 475,000 families for one year, but it had the capacity

131. See *Sustainable Groundwater Management*, CAL. DEP'T OF WATER RES., <http://www.water.ca.gov/groundwater/sgm/index.cfm> [https://perma.cc/M9B2-YM7H] (last updated Nov. 9, 2016) (explaining that the Department of Water Resources' Draft Strategic Plan "outlines key actions DWR will undertake over the next several years to position itself better to support local agencies across California to achieve sustainable groundwater management"); see also *Groundwater Sustainability Program Draft Strategic Plan*, CAL. DEP'T OF WATER RES. 1, 4 (2015), http://www.water.ca.gov/groundwater/sgm/pdfs/_GSP_DraftStrategicPlanMarch2015.pdf [https://perma.cc/VC72-J2CC].

132. See WATER §§ 10720–10736.6 (explaining how there are so many distinctions between categories of water that it has become difficult to provide water without consistent structure and unified control); Felicity Barringer, *Psst . . . Groundwater and Surface Water Do Mix*, N.Y. TIMES: GREEN (Feb. 3, 2011, 11:48 AM), http://green.blogs.nytimes.com/2011/02/03/psst-groundwater-and-surface-water-do-mix/?_r=0 [https://perma.cc/9PCN-L4VT] ("But, as demonstrated by the hearing called by Assemblyman Jared Huffman, chairman of the water and parks committee, the effort to manage groundwater as if it were part of the surface water system may finally be gathering momentum.").

133. See Tina Cannon Leahy, *Desperate Times Call for Sensible Measures: The Making of the California Sustainable Groundwater Management Act*, 9 GOLDEN GATE U. ENVT'L L.J. 5, 37 (2016) ("DWR's role in providing technical assistance and review contrasted with the State Water Board's role as the groundwater 'police' and reflected stakeholders' views of DWR as a non-regulatory agency and the State Water Board as a regulator."); see also Michelle Chester, *Clarifying the Roles of Water Providers in Southern California*, 44 MCGEORGE L. REV. 803, 804–05 (2013).

134. See Chester, *supra* note 133, at 804 ("[T]he Southern California Central Basin aquifer stores enough water to meet the water needs of approximately 475,000 families for one year."); *id.* ("However, the Basin has the capacity to hold enough water to support an additional 660,000 families."); see also Peter H. Gleick, *State Needs More Water Storage – Underfoot*, PAC. INST. (Jan. 8, 2011), <http://pacinst.org/publication/state-needs-more-water-storage-underfoot/> [https://perma.cc/D6L5-8D9H] (explaining how California needs more below-surface groundwater storage, and having unused storage space should therefore be utilized).

to hold enough water to support another 660,000 families.¹³⁵ The basin's capacity was underused due to a "bureaucratic battle" between the Water Replenishment District of Southern California (WRD), a regional groundwater management agency, and the Central Basin Municipal Water District (CBMWD), a governmental agency that caters to municipalities, over the right to control groundwater storage.¹³⁶ Chapter 215, which amended California Water Code Section 71610, ended the battle and handed management control of groundwater resources to the WRD; however, "it remains to be seen whether the WRD will ultimately resolve Los Angeles County's groundwater management issues."¹³⁷ This bureaucratic battle stood in the way of delivering water to citizens at a reasonable price and inhibited environmentally friendly use of water. This battle could have been avoided if one branch of government, the California state legislature, had the highest control over water management and could resolve such disputes at the onset.

B. Public Trust Doctrine: Recognizing the State as the Public's Water Trustee Defends the State Against Takings Claims

The public trust doctrine provides one justification for the California State Legislature to take control of water use rights and thus have direct control of statewide water management.

135. CENT. BASIN MUN. WATER DIST., DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT 310 (2011), http://www.centralbasin.org/assets/press_releases/Program%20PEIR,%20November%202011.pdf [<https://perma.cc/QBU7-25UR>] (clarifying the historical amount of direct groundwater recharge in the Central Basin in Figure 4.8.13); Chester, *supra* note 133, at 804.

Overpumping of Central Valley Groundwater Creating a Crisis, Experts Say, L.A. TIMES (Mar. 18, 2015, 4:00 AM), <http://www.latimes.com/local/california/la-me-ground-water-20150318-story.html> [<https://perma.cc/9JE4-29KT>] ("Parts of the San Joaquin Valley are deflating like a tire with a slow leak as growers pull more and more water from the ground.").

136. Sam Allen, *Feud Between Two Obscure Water Agencies Costs Consumers*, L.A. TIMES (Apr. 25, 2012), <http://articles.latimes.com/2012/apr/25/local/la-me-water-wars-20120425> [<https://perma.cc/C4LV-VRUT>] ("[The Central Basin Municipal Water District and Water Replenishment District of Southern California]—which serve more than a third of the nearly 10 million residents of L.A. County—have more than doubled their fees in recent years while spending significant amounts of time and money battling each other in a series of lawsuits . . ."); Chester, *supra* note 133, at 805 (noting that the WRD and CBMWD's "bureaucratic battle for the right to control the region's groundwater storage" resulted in the Central Basin having remaining storage space).

137. Chester, *supra* note 133, at 810. For an explanation of how groundwater banking may be a solution to California's groundwater problems, see Erica Gies, *Water in the Bank: One Solution for Drought-Stricken California*, YALE ENV'T 360 (May 7, 2015), http://e360.yale.edu/feature/water_in_the_bank_one_solution_for_drought-stricken-california/2872/ [<https://perma.cc/D9TH-3ZLK>].

1. Historical Support for the Public Trust Doctrine

The public trust doctrine originated in Roman and English law and has an inherent attribute of state sovereignty.¹³⁸ Under the public trust doctrine, the state is trustee of certain natural resources held “in public trust” for the people, and it limits the purposes for which trust resources can be used.¹³⁹ In California, the reasonable use principle and public trust doctrine prevail over water management policy, especially in the Delta.¹⁴⁰ The public trust doctrine also bolsters California’s constitutional amendment requiring reasonable and beneficial water use, because it grants the state government power to supervise water use.¹⁴¹

138. Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois* Central, 71 U. CHI. L. REV. 799, 800 (2004) (“The public trust doctrine, a jarring exception of uncertain dimensions, posits that some resources are subject to a perpetual trust that forecloses private exclusion rights.”); Stevens, *supra* note 25, at 14.

139. Robin Kundis Craig, *A Comparative Guide to the Western States’ Public Trust Doctrines: Public Values, Private Rights, and the Evolution Toward an Ecological Public Trust*, 37 ECOLOGY L.Q. 53, 56 (2010) (“A state’s public trust doctrine outlines public and private rights in water and submerged lands by delineating five components of those rights: (1) the beds and banks of waters that are subject to state/public ownership; (2) the line or lines dividing private from public title in those submerged lands; (3) the waters subject to public use rights; (4) the line or lines in those waters that mark the limit of public use rights; and (5) the public uses that the doctrine will protect in the waters where the public has use rights.”); O’Dea, *supra* note 126, at 440.

140. CAL. WATER CODE § 85023 (West Supp. 2016) (“The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta.”). For more information about the Sacramento-San Joaquin Delta, see *About the California Delta*, DELTA BOATING, <http://deltaboating.com/about.htm> [https://perma.cc/5DDD-NC2B] (last visited Nov. 11, 2016), and *California’s Water: Sacramento-San Joaquin River Delta*, ASS’N OF CAL. WATER AGENCIES, <http://www.acwa.com/content/delta/californias-water-sacramento-san-joaquin-river-delta-0> [https://perma.cc/V674-FBH9] (last visited Nov. 11, 2016) (“Just a few miles south of Sacramento, two of California’s major rivers converge to form one of the most important features of California’s water system—the Sacramento-San Joaquin River Delta.”).

141. Stevens, *supra* note 25, at 6 (“Thus, California’s highest court held, all such uses are subject to the state’s continuing duty of supervision and may be modified when changing circumstances call for it under the doctrines of reasonable use and public trust.”); see CAL. CONST. art. X, § 2 (explaining the rule of reasonable use in California water law); *State Water Resources Control Board May Weigh the Use of Water for Public Purposes Against Commercial Use by Riparian Users and Early Appropriators in Determining Reasonableness of Commercial Use*, PERKINS COIE (July 21, 2014), <https://www.california-landusedevelopmentlaw.com/2014/07/21/state-water-resources-control-the-board-may-weigh-the-use-of-water-for-public-purposes-against-commercial-use-of-water-by-riparian-users->

The public trust doctrine recognizes the state as the trustee of natural resources that should be managed for public benefit, and thus in theory it provides a defense to takings claims regarding property held in public trust.¹⁴² All water is property of the people of the state, subject to appropriation.¹⁴³ Property rights in water generally only confer the right to use and not own water, “subject to the limits imposed by California’s Constitution, statute[s], and the public trust doctrine.”¹⁴⁴ The doctrine assigns the government the role of trustee, meaning it holds the resources, like land under navigable water, in trust for the real owner, which is the public at large.¹⁴⁵ The public trust doctrine could be expanded in California to validate the governmental taking of private property, or water rights in this situation.

2. National Audubon and Beyond

California’s public trust doctrine and the Board and California’s state courts’ roles in protecting public trust resources were firmly established

and-early-appropriators/ [https://perma.cc/SC88-JBCX] (“[I]t has long been accepted that California law requires that water be put to a use that is both beneficial and reasonable [T]he public trust is a . . . potential limit on private uses of water.” (citing *Light v. State Water Res. Control Bd.*, 173 Cal. Rptr. 3d 200, 211–12 (2014))).

142. O’Dea, *supra* note 126, at 439 (“Theoretically, the public trust doctrine provides a defense to taking claims involving property held in the public trust.”). For a discussion of the public trust resources during the California Environmental Quality Act (CEQA) environmental review process, see Patricia Nelson, *CEQA and the Public Trust Doctrine: A Citizen’s Guide*, ENVTL. FORUM OF MARIN CLASS 40, at 5 (2013), <http://www.marinefm.org/assets/images/Stories/public%20trust%20guide.pdf> [https://perma.cc/2FM3-Z4F2].

143. CAL. WATER CODE § 102 (West 2009) (“All water within the State is the property of the people of the State, but the right to the use of water may be acquired by appropriation in the manner provided by law.”).

144. *Nat’l Audubon Soc’y v. Superior Court*, 658 P.2d 709, 719 (Cal. 1983) (noting that one of the purposes of the public trust doctrine is to protect both “recreational and ecological” values); Stevens, *supra* note 25, at 6 (“Although property rights can exist in water, they are commonly described as usufructory; in other words they only confer the right to the use of water, subject to strict limits imposed by the State Constitution, statute, and the public trust doctrine.” (first citing WATER § 102; and then citing *Eddy v. Simpson*, 3 Cal. 249, 252 (1853))). For a discussion of protected uses under the public trust doctrine, see *Protected Uses*, FLOW, <http://flowforwater.org/public-trust-solutions/protected-uses/> [https://perma.cc/9QGL-3CSL] (last visited Nov. 11, 2016).

145. *Illinois Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 452 (1892) (“That the State holds the title to the lands under the navigable waters of Lake Michigan, within its limits, in the same manner that the State holds title to soil under tide water, by the common law, we have already shown”); Erin Ryan, *The Public Trust Doctrine, Private Water Allocation, and Mono Lake: The Historic Saga of National Audubon Society v. Superior Court*, 45 ENVTL. L. 561, 568 (2015) (“The State holds the title to the lands under the navigable waters . . . in trust for the people of the state that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties.” (quoting *Illinois Cent. R.R. Co.*, 146 U.S. at 452)).

in *National Audubon v. Superior Court*.¹⁴⁶ The legal history that arose with the developments of Mono Lake embodies the conflicting interests that arise in public trust doctrine issues.¹⁴⁷

In *National Audubon Society v. Superior Court*, the National Audubon Society and Mono Lake Committee argued that Los Angeles's water diversions from Mono Lake "violated the public trust doctrine, constituted a common law nuisance, and violated portions of the California Constitution protecting navigable waterways."¹⁴⁸ Petitioners sought an injunction to permanently force the Department of Water and Power of the City of Los Angeles (DWP) to reduce its water diversions from Mono Lake, asserting that it was protected by the public trust.¹⁴⁹ Petitioners requested a review of the superior court's decision, which was that the public trust doctrine offered "no independent basis" for DWP diversions, and plaintiffs had failed to exhaust administrative remedies before the Water Board prior to filing suit.¹⁵⁰ The California Supreme Court held that both the public trust

146. *Nat'l Audubon Soc'y*, 658 P.2d at 721 ("We conclude that the public trust doctrine, as recognized and developed in California decisions, protects navigable waters from harm caused by diversion of nonnavigable tributaries.").

147. Ryan, *supra* note 145, at 603 ("The emerging coalition marshalled its resources to forestall further environmental devastation in Mono Basin, culminating in the California Supreme Court's epic *Mono Lake* decision."). For more information about *Mono Lake*, see *The Mono Lake Story*, MONO LAKE COMM., <http://www.monolake.org/about/story> [https://perma.cc/T8AZ-277F] (last visited Nov. 11, 2016) ("Since 1978, the Committee has achieved many accomplishments in the fight to protect Mono Lake.").

148. CAL. CONST. art X, § 4 ("No individual, partnership, or corporation . . . shall be permitted to exclude the right of way to such [navigable] water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water."); Ryan, *supra* note 145, at 603.

149. *Nat'l Audubon Soc'y*, 658 P.2d at 719, 721 ("Mono Lake is a navigable waterway . . . We conclude that the public trust doctrine, as recognized and developed in California decisions, protects navigable waters from harm caused by diversion of nonnavigable tributaries."); see also George Leef, *Thanks, EPA: Your New 'Navigable Waters' Rule Strengthens the Case Against Administrative Law*, FORBES (Feb. 6, 2015, 9:00 AM), <http://www.forbes.com/sites/georgeleef/2015/02/06/thanks-epa-your-new-navigable-waters-rule-strengthens-the-case-against-administrative-law/2/#1ffafaf3133f> [https://perma.cc/ANQ9-3SGY] (explaining that although the Supreme Court has limited the power of water regulators in two cases, "when regulators lose court cases, it does not hurt them," so the EPA and Army Corps proposed a new rule to broadly define "navigable waters" to expand their authority over them).

150. *Nat'l Audubon Soc'y*, 658 P.2d at 712; see L.A. DEP'T OF WATER & POWER, <https://www.ladwp.com> [https://perma.cc/WG3W-8GMU] (last visited Nov. 11, 2016) (providing more information on DWP); see also LADWP (@LADWP), TWITTER (Mar. 5, 2016, 8:10 PM), <https://twitter.com/LADWP/status/706331031666876416> [https://twitter

doctrine and the law of appropriative water rights are fundamental and equal, although conflicting, principles in California water law.¹⁵¹ The court concluded that the public trust doctrine can forbid diversions of non-navigable tributaries that damage the public interest of navigable waterways.¹⁵² The court did not, however, order a particular allocation of water.¹⁵³

Notably, the court determined that the public trust doctrine and the California water rights system operate together in one integrated system of water law.¹⁵⁴ The state has supervisory control over its navigable waters and the lands beneath those waters, while the Legislature acting through an agency like the State Water Board simultaneously has the right to permit water appropriations.¹⁵⁵ However, “once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water,” and the state can reconsider allocation decisions that negatively affect the public trust.¹⁵⁶ *National*

.com/LADWP/status/706331031666876416] (“How can you save 2.5 gals of water per minute? Turn off water while brushing teeth.”).

151. *Nat’l Audubon Soc’y*, 658 P.2d at 719 (noting that traditional public rights in using public trust navigable waters does not limit the public interest in the trust, where public uses are flexible to encompass changing public needs); see Ryan, *supra* note 145, at 608 (“Instead, [the California Supreme Court] affirmed that both doctrines remain bedrock principles within California law, and that neither displaces the other.” (citing *Nat’l Audubon Soc’y*, 658 P.2d at 718)).

152. *Nat’l Audubon Soc’y*, 658 P.2d at 732.

153. *Id.*; see *City of Barstow v. Mojave Water Agency*, 5 P.3d 853, 869 (Cal. 2000) (explaining that a court adjudicating a water rights dispute may “impose a physical solution to achieve a practical allocation of water to competing interests,” and therefore the court could have ordered a particular allocation of water in *National Audubon*); see Ed Owens, *Public Trust Doctrine*, NAT’L RES. PROTECTIVE ASS’N (2001), <http://www.nrpa.com/resources/public-trust-doctrine/> [<https://perma.cc/ZA6G-5B68>] (explaining the history of the public trust doctrine, and which natural resources are protected by the public trust); see also Ryan, *supra* note 145, at 609 (“[T]he Mono Lake case is perhaps most famous for the proposition that the public trust doctrine protects values beyond the traditional boating, fishing, and swimming associated with navigable waters to also include ecological, recreational, and scenic considerations.” (citations omitted)).

154. *Nat’l Audubon Soc’y*, 658 P.2d at 726–27 (“As we have seen, the public trust doctrine and the appropriative water rights system administered by the Water Board developed independently of each other.”); see also Craig Anthony (Tony) Arnold, *Adaptive Water Law*, 62 KAN. L. REV. 1043, 1081 (2014) (“Integrated water governance enhances institutional, social, and ecological adaptive capacity by organizing around the interconnections in ecosystem-social legal-system dynamics.”).

155. See *Nat’l Audubon Soc’y*, 658 P.2d at 727 (“The state as sovereign retains continuing supervisory control over its navigable water and the lands beneath those waters . . . [While] the Legislature, acting directly or through an authorized agency such as the Water Board, has the power to grant usufructuary licenses that will permit an appropriator to take water from flowing streams” (citations omitted)).

156. *Nat’l Audubon Soc’y*, 658 P.2d at 721, 728 (holding further that an individual who acquires rights in the public trust holds those rights “subject to the trust, and can assert no vested right to use those rights in a manner harmful to the trust”). For another example

Audubon is thus significant because the State Water Board must now affirmatively consider the impact of water diversions on public trust resources when it grants and oversees the exercise of water rights, and it must ultimately protect public trust resources.¹⁵⁷ Because the state has the power to increase “continued supervision over the [public] trust,” the state can claim that the public trust is in danger under the current system of water rights appropriations, and water rights must be given back to the state to protect the public trust.¹⁵⁸

The decision in *National Audubon* was a step in the right direction, but nothing comparable has happened since.¹⁵⁹ The State Water Board must reevaluate the public trust values in the Mono Basin before it decides whether or not Los Angeles’s water permits have a valid public interest, but the court did not specify how to balance the competing interests.¹⁶⁰ The State Water Board must reconcile the public trust with prior water appropriations, and the best solution is to use the public trust doctrine as a justification for revoking private water rights through appropriations, senior water rights, and other water rights. Now that California has faced a persistent drought for the past several years, it is time that the Board revisit the current plans for water diversions from public trusts like Mono Lake and other areas.

of a public trust resource besides Mono Lake, see SCOTT RIVER WATER TR., <http://www.scottwatertrust.org/> [<https://perma.cc/P6CZ-PXFW>] (last visited Nov. 11, 2016).

157. O’Dea, *supra* note 126, at 441–42 (“The court held that as administrator of the public trust, the state has power to exercise ‘continued supervision over the trust.’” (quoting *Nat’l Audubon Soc’y*, 658 P.2d at 721)).

158. *Nat’l Audubon Soc’y*, 658 P.2d at 721, 723; O’Dea, *supra* note 126, at 442 (“The Board’s ‘continuing supervision’ over water rights gives the Board broad authority to ‘reconsider allocation decisions,’ even if it has previously considered the public trust impacts of those allocations.” (quoting *Nat’l Audubon Soc’y*, 628 P.2d at 728–29)).

159. It is true that *Illinois Central* helped develop the public trust doctrine in common law, but it is not as recognized as *National Audubon*, and more action (like both of these cases) should occur. *Illinois Cent. R.R. Co. v. Illinois*, 146 U.S. 387 (1892); Ryan, *supra* note 145, at 572 (“Following the Mono Lake decision, [*Illinois Central*] has become increasingly associated not only with the protection of such traditional uses as boating, commerce, fishing, and swimming, but with environmental protection as well.” (citing *Marks v. Whitney*, 491 P.2d 374, 380 (Cal. 1971))); see *Restoration Chronology*, MONO LAKE COMM., <http://www.monolake.org/mlc/restochr> [<https://perma.cc/7W37-VL53>] (last visited Nov. 11, 2016) (explaining the projects and actions taken in Mono Lake’s restoration from 1982 until 2009).

160. See *Illinois Cent. R.R. Co.*, 146 U.S. 387; *Nat’l Audubon Soc’y*, 658 P.2d 709; see also Ryan, *supra* note 145, at 565, 634.

Also, case law suggests that the state government is the only entity that can use the public trust doctrine as a defense to taking claims.¹⁶¹ For example, in *United States v. SWRCB*, the court of appeal held that *National Audubon v. Superior Court* “firmly establishes” the right of the Board to control water rights permits and reevaluate permits as necessary.¹⁶² In this case, the court affirmed the Board’s power to exercise supervision over water rights holders where the end goal was to protect fish and wildlife.¹⁶³ In another case, *Tulare Lake Basin Water Storage District v. United States*, the court held that the public trust doctrine did not apply to the federal government’s use, because this judgment is reserved for the state.¹⁶⁴ Therefore, only either the Board or a state court, not a federal agency or federal court, can use the public trust doctrine as a defense to water taking claims.¹⁶⁵ The public trust doctrine would therefore provide a solid defense for the Board should water takings claims arise if the proposal at hand were to be enacted.¹⁶⁶ The Board would be protected, because water is a

161. *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313, 323–24 (2001); *Nat’l Audubon Soc’y*, 658 P.2d 728 (“[T]he state must bear in mind its duty as trustee to consider the effect of the taking on the public trust.”); *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 201 (Ct. App. 1986) (“This landmark decision directly refutes the Bureau’s contentions and firmly establishes that the state, acting through the Board, has continuing jurisdiction over appropriation permits and is free to reexamine a previous allocation decision.”); see O’Dea, *supra* note 126, at 439.

162. *State Water Res. Control Bd.*, 227 Cal. Rptr. at 201 (“[T]he board unquestionably possesses legal authority over the public trust doctrine to exercise supervision over [water rights holders] in order to protect fish and wildlife . . .”).

163. *Id.* For more information on protecting California’s fish and wildlife resources during the current drought, see *Drought Related Actions to Preserve and Protect the State’s Fish and Wildlife Resources*, CAL. DEP’T OF FISH & WILDLIFE, <https://www.wildlife.ca.gov/drought> [<https://perma.cc/A4MA-99SG>] (last visited Nov. 11, 2016).

164. See *Tulare Lake Basin*, 49 Fed. Cl. at 323–24. But see Cynthia Carlson, *Federal Property and the Preemption of State Public Trust Doctrines*, 20 E.L.R. 10003 (1990) (discussing the federal government’s power to preempt the state public trust doctrine where federal property is involved).

165. O’Dea, *supra* note 126, at 445 (“Thus, according to the court, for the public trust doctrine to provide a defense to water takings claims, the SWRCB or a state court—as opposed to a federal agency or a federal court—must do the readjusting.”); see Jeremy P. Jacobs, *Takings Arguments Bubble Up as California Cuts Water Rights*, GREENWIRE (July 27, 2015), <http://www.eenews.net/stories/1060022451> [<https://perma.cc/RR8F-ZNQ5>] (explaining the conflict between the Fifth Amendment’s taking clause and the state taking back water rights during the drought).

166. See O’Dea, *supra* note 126, at 445 (noting that only a state agency or a state court, not a federal agency or a federal court, can use the public trust doctrine as a defense in this context); see also Michael C. Blumm & Lucas Ritchie, *Lucas’s Unlikely Legacy: The Rise of Background Principles as Categorical Takings Defenses*, 29 HARV. ENVTL. L. REV. 321, 322 (2005) (“*Lucas* instead spawned a surprising rise of categorical defenses to takings claims in which governments can defeat compensation suits without case-specific inquiries into the economic effects and public purposes of regulations.”).

public trust resource in California and when it regulates water distribution and reevaluates water permits, it is acting in the interest of the public.¹⁶⁷

3. *A Lack of Property Rights in Water Under the Public Trust Doctrine Justifies Taking Water Rights*

The state can construe its regulatory power to take control of private water use rights and use the public trust doctrine as a defense to taking these private rights, claiming there were no existing private property rights in the water use rights.¹⁶⁸ This would reinforce the public trust doctrine, where the state has a duty to preserve this trust property from harmful diversions by water rights holders,” and would redirect water to areas that need water the most.¹⁶⁹ The public trust doctrine should be expanded so that the State Water Board can take control over all water distribution that private water rights holders control now, as well as navigable waters that are included in the public trust.¹⁷⁰

167. *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 712 (Cal. 1983); see Norman K. Johnson & Charles T. DuMars, *A Survey of the Evolution of Western Water Law in Response to Changing Economic and Public Interest Demands*, 29 NAT. RESOURCES J. 347 (1989) (discussing the “modern protection of the public interest in the allocation of water under the [appropriation] doctrine . . .”); see O'Dea, *supra* note 126, at 439.

168. See Kristen Dorrity, Comment, *Will Federal Environmental Regulation Be Permitted to Infringe on State Vested Water Rights?*, 11 UCLA J. ENVTL. L. & POL'Y 113, 124 (1992) (“While the state’s ‘uniquely sovereign’ interests in water could conceivably allow unbridled state regulation of water rights without effecting a taking, different issues arise where federal regulations result in similar restrictions of water rights.”).

169. *United States v. State Water Res. Control Bd.*, 227 Cal. Rptr. 161, 170–71 (Ct. App. 1986); see also Julia Lurie, *California's Drought is So Bad That Thousands Are Living Without Running Water*, MOTHER JONES (July 31, 2015, 6:00 AM), <http://www.motherjones.com/environment/2015/07/drought-5000-californians-dont-have-running-water> [<https://perma.cc/QU36-4YEQ>] (“While a handful of communities across the state are dealing with municipal water contamination and shortages, the area that’s hardest hit—and routinely referred to as the ‘ground zero of the drought’—is Tulare County, a rural, agriculture-heavy region in the Central Valley that’s roughly the size of Connecticut.”).

170. See CAL. WATER CODE § 85023 (West Supp. 2016) (“The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta.”); see *Nat'l Audubon Soc'y*, 658 P.2d at 719 (“It is . . . well settled in the United States generally and in California that the public trust is not limited by the reach of the tides, but encompasses all navigable lakes and streams.” (citations omitted)); see *State Water Res. Control Bd.*, 227 Cal. Rptr. at 170–71.

Arguably, no private property rights exist in water use rights.¹⁷¹ The state can make this argument if its actions are challenged, because water is originally the state's property that it can choose to appropriate, or allow others to use.¹⁷² Water is inherently the state's property and the state has the right to reasonably use and appropriate water use.¹⁷³ With no private property rights in existence, the state is merely taking direct control of its own property, which is within the public trust.¹⁷⁴ The public trust naturally includes the state's waters, and the state controls the public trust, so it is logical that the state can increase its power to actually produce change, stimulate water conservation, and better manage water use statewide.¹⁷⁵

As exemplified in *National Audubon*, California law mandates that the public trust doctrine be considered in appropriating private water rights. The public trust doctrine conflicts with the prior appropriations doctrine of private water allocation.¹⁷⁶ Appropriation of water rights affirms private

171. Cynthia L. Koehler, *Water Rights and the Public Trust Doctrine: Resolution of the Mono Lake Controversy*, 22 *ECOLOGY L.Q.* 541, 555 (1995) ("Rights to water therefore fall well short of real property ownership and carry only a right of use." (citing *Eddy v. Simpson*, 3 Cal. 249, 252 (1853))).

172. CAL. WATER CODE § 102 (West 2009) ("All water within the State is the property of the people of the State . . ."). California law has another related provision, stating: All water flowing in any natural channel, excepting so far as it has been or is being applied to useful and beneficial purposes upon, or in so far as it may be reasonably needed for useful and beneficial purposes upon lands riparian thereto, or otherwise appropriated, is hereby declared to be public water of the State and subject to appropriation in accordance with the provisions of this code. CAL. WATER CODE § 1201 (West 2009).

173. CAL. CONST. art. X, § 2; see O'Dea, *supra* note 126, at 439 ("In federal ESA cases, using the public trust as a defense to takings claims presents a problem: case law suggests that the state government, not the federal government, is the only entity that can validly assert the public trust doctrine as a defense." (citation omitted)).

174. WATER § 102 ("All water within the State is the property of the people of the State."); WATER § 85023 ("The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta."); *Nat'l Audubon Soc'y*, 658 P.2d at 711, 718; see O'Dea, *supra* note 126, at 440 ("Case law does not provide definitive guidance as to when the federal government can validly assert the public trust defense in a takings case where the state has not acted." (citation omitted)).

175. *Nat'l Audubon Soc'y*, 658 P.2d at 711, 718.

176. Symposium, *Innovation Within A Regulatory Framework: The Protection of Instream Beneficial Uses of Water in California, 1978 to 2004*, 36 *MCGEORGE L. REV.* 305, 323 (2005) (noting that the California Supreme Court in *National Audubon* declined to find that either the public trust doctrine or the doctrine of prior appropriation supersedes the other, and instead "established a series of principles that would accommodate the needs of both doctrines"). For an example of where the public trust doctrine does conflict with riparian rights in Rhode Island, see Jose L. Fernandez, *Public Trust, Riparian Rights, and Aquaculture: A Storm Brewing in the Ocean State*, 20 *WM. & MARY ENVTL. L. & POL'Y REV.* 293, 293 (1996) ("Controversy has been generated by recent decisions of the Rhode

rights to use water in waterways, where the public trust doctrine affirms public rights in waterways, and the two ideas have difficulty coexisting.¹⁷⁷ Taking private appropriated water rights thus expands the public trust's theory that water in the state should belong to the public, and should be controlled by the state to determine how much access to grant the public. Although the public trust doctrine and the law of appropriative water rights conflict and both remain fundamental California principles, the state has gained power to determine when and how water can be diverted to areas when the public trust is affected.¹⁷⁸ If the public trust doctrine were expanded further to include all water in the state—appropriated, common, or otherwise—the state would have the power to choose how it is diverted.¹⁷⁹ The state has a lot of power over water already, so the public trust doctrine not only defends but also mandates that the state take the

Island Supreme Court which redefined the relation between riparian owners' rights and public rights under the public trust doctrine.”).

177. Alice King, Comment, *The Mono Lake Problem and The Public Trust Solution*, 7 UCLA J. ENVTL. L. & POL'Y 67, 89 (1987) (discussing *National Audubon Society v. Superior Court*, and the remaining uncertainty about implementing a water policy that “incorporates the public trust doctrine into the riparian and prior appropriation systems”); Ryan, *supra* note 145, at 578 (2015); see also Timothy J. Conway, *National Audubon Society v. Superior Court: The Expanding Public Trust Doctrine*, 14 ENVTL. L. 617, 630, 634 (1984) (“[O]nce an appropriation is approved, the state has a duty of continuing supervision Thus, this integrated system allows for a continual reevaluation of water uses in order to meet the public’s changing needs.”); Craig, *supra* note 139, at 55 (“One of the legal tools that can re-balance private and public trust doctrines in the state is that state’s public trust doctrine.”); Jan S. Stevens, *The Public Trust and In-Stream Uses*, 19 ENVTL. L. 605, 612–14 (1989).

178. Ryan, *supra* note 145, at 608; see *Know Your Water Rights*, STATE WATER RES. CONTROL BD., http://www.swrcb.ca.gov/water_issues/programs/enforcement/docs/cannabis_enfrmcmt/know_your_water_rights.pdf [https://perma.cc/4MBT-S436] (last visited Nov. 11, 2016) (explaining how the State requires people diverting water to file a Statement of Diversion and Use, the failure of which results in a fine, and the State Water Board must consider public trust resources when allocating water rights); see, e.g., Stevens, *supra* note 61 (discussing how the State Water Board can fine water rights holders for violating curtailment regulations).

179. Ryan, *supra* note 145, at 608 (“Water allocation and permitting laws govern the established legal relationships in these circumstances in ways that cannot be casually disrupted.”); *id.* (“In a decision affirming that instream values are considered beneficial uses in California, the court nevertheless allowed that there may be times when the public interests in diversions outweigh the public values protected by the trust.” (citing *Nat’l Audubon Soc’y*, 658 P.2d at 712, 726–27)).

public trust into account and take control over water management in the state.¹⁸⁰

One drawback in using the public trust doctrine as a legal justification is that expansive use of the public trust doctrine could result in the confiscation of what many people view as private property rights.¹⁸¹ However, as noted above, the state's argument in this case is that private water use rights do not equate to actual property rights, but rather the right to *use* water.¹⁸² Therefore, no private rights are truly confiscated, only the right to use water is heavily regulated for the benefit of the state. Also, courts emphasize the public trust doctrine's flexibility to adapt to changing public needs.¹⁸³ The State's direct control of waterways is more beneficial than having private rights to water, because private users will still be allocated water, but the state would have the regulatory authority to manage water resources responsibly. This is necessary, especially now in times of water shortages and continued land development, where water must be managed across the state.

180. CAL. WATER CODE § 85023 (West Supp. 2016) ("The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy."); see *Nat'l Audubon Soc'y*, 658 P.2d 709; Ryan, *supra* note 145, at 608 ("The court thus affirmed that Southern California's legitimate water needs must remain protected by appropriations law, but also that these rights are nonvested, and subject to the state's ongoing duty to supervise the impact of diversions on the navigational and environmental values associated with trust resources.").

181. See J. CRAIG GREEN, INDEPENDENCE INST., IP-8-2012, DON'T ASK THE STATE TO CONFISCATE WATER RIGHTS 1 (June 2012), https://www.i2i.org/files/2012/06/IP_8_2012_a.pdf [<https://perma.cc/HE5B-ZSU6>] (discussing a "poorly-conceived" proposed initiative in Colorado that would impose the public trust doctrine to "destroy property and contract rights in water"); Ryan, *supra* note 145, at 618.

182. Stevens, *supra* note 25, at 6 ("Although property rights can exist in water, they are commonly described as usufructory; in other words, they only confer the right to the use of water, subject to strict limits imposed by the State Constitution, statute, and the public trust doctrine.").

183. See, e.g., *Nat'l Audubon Soc'y*, 658 P.2d at 712 (expanding the public trust doctrine); *Marks v. Whitney*, 491 P.2d 374, 380 (Cal. 1971) (noting that it is not necessary to precisely define every public use that could burden water and land in the public trust and a state can later determine lands no longer useful for trust purposes and release them from the public trust); *Gould v. Greylock Reservation Comm'n*, 215 N.E.2d 114, 121–26 (Mass. 1966) (noting that the public trust doctrine applies to forested lands in a state park); see also *QuickFacts California Population*, U.S. CENSUS BUREAU, <http://www.census.gov/quickfacts/table/PST045215/06#> [<https://perma.cc/RAK3-JT3Q>] (last visited Nov. 11, 2016) (explaining that California is the most populous state in the nation, with the population steadily increasing); Richard M. Frank, *Another Inconvenient Truth: California Water Law Must Change*, S.F. CHRON. (Apr. 10, 2015), <http://www.sfchronicle.com/opinion/article/Another-inconvenient-truth-California-water-law-6192703.php> [<https://perma.cc/HHR2-A4T8>] ("If we are to survive the drought with the state's economy and environment intact, we need to reform California water rights laws—and soon.").

C. Eminent Domain: Exchanging Private Water Rights for Just Compensation

Eminent domain is another legal justification for taking water use rights from private users, and would be most effective if courts insist that water rights are equivalent to private property rights.

1. Eminent Domain Arises Under the Fifth Amendment

The concept of eminent domain originates in both the United States Constitution and California's Constitution.¹⁸⁴ The Fifth Amendment, in relevant part, states: "No person shall be . . . deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation."¹⁸⁵ Under California's Constitution, "private property may be taken or damaged for a public use and only when just compensation, ascertained by a jury unless waived, has first been paid to, or into court for, the owner."¹⁸⁶ This is California's doctrine of eminent domain, in which the government can take private property if it provides the owner with compensation.¹⁸⁷

2. From *Kelo v. City of New London* to the Rational Basis Test

The United States Supreme Court articulated its view of the eminent domain doctrine in *Kelo v. City of New London*, in which the Connecticut city proposed a development plan where the city could use the power of eminent domain to acquire any remaining or outstanding necessary private

184. U.S. CONST. amend. V; CAL. CONST. art. I, § 19(a); *see also* COLO. CONST., art. II §§ 14, 15.

185. U.S. CONST. amend. V; *see also* Emily L. Madueno, Note & Comment, *The Fifth Amendment's Takings Clause: Public Use and Private Use; Unfortunately, There is No Difference*, 40 LOY. L.A. L. REV. 809, 810 (2007) ("The proper scope of a narrow public use definition requires actual use by the general public or public control of the private use; otherwise, the public use requirement ceases to restrict any taking.").

186. CAL. CONST. art. I, § 19(a).

187. CAL. CONST. art. I, § 19(a); *see* Rick Rayl, *Update on Two Recent California Eminent Domain Cases*, NOSSAMAN, LLP (Apr. 21, 2015), <http://www.californiaeminentdomainreport.com/2015/04/articles/inverse-condemnation-regulatory-takings/update-on-two-recent-california-eminent-domain-cases/> [<https://perma.cc/CB6V-GDF6>] (discussing two recent eminent domain cases in California, one of which allowed Casitas to proceed with its eminent domain action, and the other held that Santa Barbara could not preclude citizens from building in an area that may be unsafe).

property from “unwilling owners” in exchange for just compensation.¹⁸⁸ The court determined that the city’s proposed condemnations for economic development were for a “public use” within the meaning of the Fifth Amendment.¹⁸⁹ Therefore, the Supreme Court approves of cities, and thus states, using the power of eminent domain to take private property for public use.¹⁹⁰

This concept of the state taking property through eminent domain is by no means unprecedented. In *Mt. Vernon-Woodberry Cotton Duck Co. v. Alabama Interstate Power Co.*, the State of Alabama initiated eminent domain proceedings to take land, water, and water rights so a power company could create and sell hydroelectric power.¹⁹¹ The Supreme Court held that there was a valid public use in the government taking to “save mankind from toil that it can be spared,” and the Court noted some limitations in requiring “explicit public use” for eminent domain takings.¹⁹² The Court thus expanded the definition of public use.¹⁹³

188. *Kelo v. City of New London*, 545 U.S. 469, 472, 477 (2005); see also Bob Adelman, *Eminent Domain in Connecticut: Homeowners Fight to Keep Homes*, NEW AM. (Sept. 17, 2015), <http://www.thenewamerican.com/usnews/constitution/item/21599-eminent-domain-in-connecticut-homeowners-fight-to-keep-homes> [<https://perma.cc/F3Z2-U2LU>] (discussing more recent events that may lead to an eminent domain lawsuit in Connecticut and how it relates to *Kelo v. City of New London*).

189. *Kelo*, 545 U.S. at 490; see also *Hawaii Hous. Auth. v. Midkiff*, 467 U.S. 229, 245 (1984) (“A purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.”). But see *Kelo*, 545 U.S. at 498 (O’Connor, J., dissenting) (“But ‘public ownership’ and ‘use-by-the-public’ are sometimes too constricting and impractical ways to define the scope of the Public Use Clause.”).

190. U.S. CONST. amend. V; see generally *Kelo*, 545 U.S. 469 (finding Connecticut could use the power of eminent domain to acquire private property from “unwilling owners” in exchange for just compensation).

191. *Mt. Vernon-Woodberry Cotton Duck Co. v. Alabama Interstate Power Co.*, 240 U.S. 30, 31 (1916); see Steven Chen, Note, *Keeping Public Use Relevant in Stadium Eminent Domain Takings: The Massachusetts Way*, 40 B.C. ENVTL. AFF. L. REV. 453, 458 (2013) (“As technology advanced and corporations began to grow increasingly complex, however, governments began using their eminent domain powers to assist private firms.” (citing William A. Fischel, *The Political Economy of Public Use in Poletown: How Federal Grants Encourage Excessive Use of Eminent Domain*, 2004 MICH. ST. L. REV. 929, 933 (2004))); see also *Explore Our Plants*, ALA. POWER, <http://www.alabamapower.com/about-us/plants/home.asp> [<https://perma.cc/KW8G-YMB7>] (last visited Nov. 11, 2016) (providing locations of hydroelectric generating power plants in Alabama).

192. *Mt. Vernon-Woodberry Cotton Duck Co.*, 240 U.S. at 32 (1916); Chen, *supra* note 191 (“The Court held that even though the taking benefitted a private party, it also had a public purpose to ‘save mankind from toil that it can be spared’ and acknowledged the limitations of requiring explicit public use for eminent domain takings.” (citation omitted)).

193. Chen, *supra* note 191 (“As the Court expanded the definition of public use, it also began showing greater deference to legislatures exercising their eminent domain powers.” (citations omitted)); see *Berman v. Parker*, 348 U.S. 26, 29 (1954) (“[The public use includes] the acquisition and the assembly of real property and the leasing or sale thereof

However, in *99 Cents Only Stores v. Lancaster Redevelopment Agency*, a California district court held that the rational basis test precluded the City of Lancaster from using eminent domain to take private property, and that “future blight” is not a “conceivable” public purpose.¹⁹⁴ Under the rational basis test, a taking is justified when the taking is rationally related to a valid, conceivable public use.¹⁹⁵ Here, 99 Cents Only Stores (99 Cents) argued that the Lancaster Redevelopment Agency and the City of Lancaster (Lancaster) threatened to take its property in violation of the Fifth Amendment.¹⁹⁶ 99 Cents requested the court enjoin Lancaster from initiating condemnation proceedings against it because such condemnation would violate the public use provision of the Takings Clause in the Fifth Amendment.¹⁹⁷ The court enjoined Lancaster from initiating eminent domain proceedings against 99 Cents, holding that Lancaster’s theory that the land must be condemned to protect against future blight fails, and Lancaster was actually attempting to condemn 99 Cents’ leasehold interest only to

for redevelopment pursuant to a project area redevelopment plan” (citation omitted)); see *United States v. 14.02 Acres of Land*, 547 F.3d 943, 949, 952 (9th Cir. 2008) (holding that a project that was the partnership between private and public entities satisfied public use for a taking); see *Rosenthal & Rosenthal Inc. v. N.Y. State Urban Dev. Corp.*, 771 F.2d 44, 45 (2d Cir. 1985) (noting that redevelopment of a blighted area satisfied the public use requirement).

194. *99 Cents Only Stores v. Lancaster Redevelopment Agency*, 237 F. Supp. 2d 1123, 1126–28, 1128, 1130 (C.D. Cal. 2001). But see Wendell E. Pritchett, *The “Public Menace” of Blight: Urban Renewal and the Private Uses of Eminent Domain*, 21 YALE L. & POL’Y REV. 1, 3 (2003) (discussing that *Berman v. Parker*, 348 U.S. 26 (1954), held that condemnations were constitutional, because “[b]y elevating blight, [a disease that threatened to turn healthy areas into slums,] into a disease that would destroy the city, renewal advocates broadened the application of the Public Use Clause and at the same time brought about a reconceptualization of property rights.”).

195. *99 Cents Only Stores*, 237 F. Supp. 2d at 1129 (“To satisfy the Public Use Clause, a taking need only be ‘rationally related to a conceivable public purpose.’” (quoting *Hawaii Hous. Auth. v. Midkiff*, 467 U.S. 229, 241 (1984))).

196. U.S. CONST. amend. V; *99 Cents Only Stores*, 237 F. Supp. 2d at 1125; see also *Successor Agency*, LANCASTER, <http://www.cityoflanasterca.org/about-us/city-government/redevelopment-agency> [<https://perma.cc/N4T6-YBZK>] (last visited Nov. 11, 2016) (explaining that the Redevelopment Agency referenced in *99 Cents Only Stores* was recently dissolved and replaced by the Successor Agency).

197. *99 Cents Only Stores*, 237 F. Supp. 2d at 1125; see Dan Nephin, *With Bulova Building Agreement, Lancaster No Longer Pursuing Eminent Domain*, LANCASTER ONLINE (July 23, 2015), http://lanasteronline.com/news/local/with-bulova-building-agreement-lancaster-no-longer-pursuing-eminent-domain/article_9f2726fc-3081-11e5-aa85-7facb5d705e5.html [<https://perma.cc/RR7U-5FUC>] (discussing another eminent domain action that almost, but did not, occur in Lancaster).

appease a third party who wanted 99 Cents' land.¹⁹⁸ This is an unconstitutional taking for private purposes.¹⁹⁹

The rational basis test referenced in *99 Cents Only Stores* would not preclude the state from obtaining water rights in California.²⁰⁰ There is a valid and rational public use in the government taking of all water rights, because the state legislature could control water management and better delegate water management powers, and subsequently control over land development would stem from one entity.²⁰¹ This is rational, because the public has not been successful in managing water thus far, and the state legislature may have to step in anyway to get water management on track.²⁰² Eminent domain is one possible vehicle for the state legislature to achieve the rational public purpose of equal water distribution, and eventually sustainable land development, to solve California's problem of continued land development when water is scarce and mismanaged.

3. *Eminent Domain Justifies Taking Private Water Rights, Subject to Constitutional Limitations*

It is logical that the state can take back its property—water rights—through eminent domain if the state can prove a public use, and if it provides “just compensation,” assuming that courts will treat water rights in this scenario

198. *99 Cents Only Stores*, 237 F. Supp. 2d at 1131.

199. *Id.* at 1130. For an example of a different kind of unconstitutional taking, see LaVonda N. Reed-Huff, *Are You Still Settling for Cable? A Case for Broader Application of the FCC's Over-The-Air Reception Devices Rule*, 26 HASTINGS COMM. & ENT. L.J. 179, 185 (2004) (“The FCC struck the proper constitutional balance between the interests of consumers, property owners, and the business industry by not extending the Rule to common areas, as such an extension probably would constitute an unconstitutional taking.”).

200. *99 Cents Only Stores*, 237 F. Supp. 2d at 1129 (“To satisfy the Public Use Clause, a taking need only be ‘rationally related to a conceivable public purpose.’” (citing *Midkiff*, 467 U.S. at 241)); *Rational Basis*, CORNELL UNIV. LAW SCH., https://www.law.cornell.edu/wex/rational_basis [<https://perma.cc/4B79-JN2B>] (last visited Nov. 11, 2016) (“Rational basis review is a test used in some contexts to determine a law’s constitutionality.”).

201. *Mt. Vernon-Woodberry Cotton Duck Co. v. Alabama Interstate Power Co.*, 240 U.S. 30, 30, 33 (1916) (holding that a power company could legally condemn a private company’s land, water, and water rights for a valid public use purpose); Chen, *supra* note 191, at 457–58 (noting that the United States Supreme Court does not itself determine the public use, and the Court broadly defines public use and defers to legislative findings on the definition of public use).

202. Ian Lovett, *In California, Stingy Water Users are Fined in Drought While the Rich Soak*, N.Y. TIMES, Nov. 22, 2015, at A22 (providing examples of individuals who have cut down on their water use but still receive water surplus charges, while individuals in other cities like Bel Air use more water but receive no fines). Interestingly, this exemplifies how the state is attempting to control water use, but is creating some inequalities. *Id.* The State would be better equipped to control water use and management if it had control over the source, and how water is dispersed from the start. *Id.*

as private property rights.²⁰³ According to California law, “all water within the State is the property of the people of the State.”²⁰⁴ Therefore, the state has property rights over all water within the state unless it chooses to appropriate the water to other rights holders.²⁰⁵ California’s legislature should use its eminent domain power to take property rights from private water rights holders to merge and strengthen efficiency within the system of water distribution.²⁰⁶ For example, the state could thus use eminent domain as a justification to take water rights from senior water rights holders and appropriators who are not using their permits in a sustainable manner.²⁰⁷ Then the state would have direct control over all future water allocation and distribution, and impose higher standards on cities—such as the standard

203. U.S. CONST. amend. V; CAL. CONST. art. I, § 19(a); see *Kelo v. City of New London*, 545 U.S. 469 (2005); Katrina Miriam Wyman, *The Measures of Just Compensation*, 41 U.C. DAVIS L. REV. 239, 252 (2007) (“The Supreme Court has indicated that the purpose of paying just compensation is to make the takee ‘whole,’ and that this will usually be accomplished by paying fair market value.” (first citing *United States v. 564.54 Acres of Land*, 441 U.S. 506, 511 (1979); and then citing *United States v. Chandler-Dunbar Water Power Co.*, 229 U.S. 53, 81 (1913))); *Just Compensation in Eminent Domain*, BIERSDORF & ASSOC., <http://www.condemnation-law.com/blog/just-compensation-in-eminent-domain/> [<https://perma.cc/4LDX-3UDY>] (last visited Nov. 11, 2016) (explaining that when the government determines just compensation in eminent domain proceedings, it hires an appraiser to determine the value of the land, its features, and severance damages, and the government must also consider the highest and best use for the land); *Just Compensation*, INVESTOPEDIA, <http://www.investopedia.com/terms/j/just-compensation.asp> [<https://perma.cc/Z4CX-55H6>] (last visited Nov. 11, 2016) (“The just compensation remedy is provided by the Fifth Amendment’s taking clause, and is usually considered to be fair market value.”).

204. CAL. WATER CODE § 102 (West 2009); see *Ivanhoe Irrigation Dist. v. All Parties*, 306 P.2d 824, 839 (Cal. 1957) (“We are therefore here directly concerned with the title, distribution and use of water which has not heretofore been subjected to beneficial use except as contemplated by acquisition, by appropriation or otherwise on the part of the State of California and the United States.”), *rev’d on other grounds*, *Ivanhoe Irrigation Dist. v. McCracken*, 357 U.S. 275 (1958).

205. WATER § 102; see CAL. WATER CODE § 1486(b) (West Supp. 2016) (“Upon application for a permit to appropriate water pursuant to subdivision (a), the board may grant the permit subject to the terms and conditions as in the board’s judgment are necessary for the protection of the rights of any legal user of the water.”).

206. *Ivanhoe Irrigation Dist.*, 306 P.2d at 869 (Gibson, C.J., dissenting) (stating that riparian rights are property rights which vest in the owner and are protected by state and federal Constitutions and can be limited or impaired without due process and just compensation); see also *Jurupa Ditch Co. v. County of San Bernardino*, 63 Cal. Rptr. 764, 769–70 (Ct. App. 1967).

207. CAL. WATER CODE § 1240 (West 2009) (“The appropriation must be for some useful or beneficial purpose, and when the appropriator or his successor in interest ceases to use it for such a purpose the right ceases.”).

form general plans discussed below—to ensure efficient land development and water consumption.²⁰⁸

While justifying taking private water rights through eminent domain could be successful, using this doctrine also poses several problems, because the doctrine is constitutionally limited, proving a valid public use may be difficult, and this would be an expensive solution, not to mention the public backlash that would inevitably arise. First, both the California State Constitution and the Federal Constitution limit the use of eminent domain.²⁰⁹ That creates an additional hurdle, because if the state’s actions are challenged in court, it may have to prove to both federal and state courts that the “taking” of water rights was proper.²¹⁰ Second, the state must prove that it took the water rights for a valid public use.²¹¹ Courts would likely find a valid public use should the state take water rights from private users, because the water would still be used by the public, just in a more efficient manner so areas that need more water will receive more water, and water will not be used

208. See *infra* Part III (b); see generally PAULA VAN LARE & DANIELLE ARIGONI, U.S. ENVTL. PROT. AGENCY, GROWING TOWARD MORE EFFICIENT WATER USE: LINKING DEVELOPMENT, INFRASTRUCTURE, AND DRINKING WATER POLICIES 12 (2006), http://www.epa.gov/sites/production/files/2014-01/documents/growing_water_use_efficiency.pdf [<https://perma.cc/V4DD-GQM>] (explaining that how a community grows affects its water use and the cost of water, and how water policies can affect growth).

209. U.S. CONST. amend. V; CAL. CONST. art. I, § 19(a); see also Charles Gray, Comment, *Keeping the Home Team at Home*, 74 CALIF. L. REV. 1329, 1334 (1986) (“In addition to these Federal Constitutional limitations, state constitutions may restrict the use of eminent domain.”); *id.* (“California, for example, adds procedural requirements to the basic fifth amendment commands.” (citations omitted)).

210. *Kelo v. City of New London*, 545 U.S. 469, 472 (2005); *People ex rel. Dep’t Pub. Works v. Chevalier*, 340 P.2d 598, 601 (Cal. 1959) (explaining that the question of whether a taking is for a proper public use under the eminent domain provisions of the U.S. Constitution and California Constitution is a justiciable issue); see *Johnston v. Sonoma Cnty. Agric. Pres. & Open Space Dist.*, 123 Cal. Rptr. 2d 226 (Ct. App. 2002). Using eminent domain as a solution requires assuming that water rights are private property rights, which some courts in California do. See *Thayer v. Cal. Dev. Co.*, 128 P. 21, 24 (Cal. 1912); *Lux v. Higgin*, 10 P. 674 (Cal. 1886); *Hoffman v. Stone*, 7 Cal. 46 (1857); *Irwin v. Phillips*, 5 Cal. 140, 146 (Cal. 1855) (“So fully recognized have become these rights, that without any specific legislation conferring or confirming them, they are alluded to and spoken of in various acts of the Legislature in the same manner as if they were rights which had been vested”); see also Clifford W. Schulz & Gregory S. Weber, *Changing Judicial Attitudes Towards Property Rights in California Water Resources: From Vested Rights to Utilitarian Reallocations*, 19 PAC. L.J. 1031, 1047 (1988).

211. U.S. CONST. amend. V; CAL. CONST. art. I, § 19(a); Megan M. Herzog & Sean B. Hecht, *Combating Sea Level Rise in Southern California: How Local Governments can Seize Adaptation Opportunities While Minimizing Legal Risk*, 19 HASTINGS W.-N.W.J. ENV. L. & POL’Y 463, 542 n.447 (2013) (explaining that public streets, highways, sewers, water tanks, water pipes, transmission of electrical power, and construction of storm drainage systems are all proper public uses for the purposes of satisfying the eminent domain doctrine).

for land developments with no sustainable water source.²¹² Third, the state must provide “just compensation” to private water rights holders when it takes their rights.²¹³ The state would have to pay each private water rights holder when it takes the water use rights, which can become very expensive.²¹⁴ These costs may be especially problematic when taking control of rights from senior water rights holders like farmers, who have ancient rights to receive a large percentage of the state’s water each year.²¹⁵ Also, senior water rights holders have already engaged in litigation when the state has curtailed their rights for drought purposes, and litigation will only grow if their rights are permanently taken.²¹⁶ This may be impractical for the state. However, using eminent domain as a legal justification to increase direct state control could

212. U.S. CONST. amend. V; see Jeffrey Spivak, *A New Competitive Edge: Water Management*, URBAN LAND MAG. (Sept. 21, 2015), <http://urbanland.uli.org/sustainability/new-competitive-edge-water-management/> [https://perma.cc/D27G-7ALW] (“The drought is not yet slowing new housing development throughout California, but it is changing how some developers approach water use and conservation”).

213. U.S. CONST. amend. V; CAL. CONST. art. I, § 19; CAL. CIV. PROC. CODE § 1263.310 (West 1975).

214. Brian Angelo Lee, *Just Undercompensation: The Idiosyncratic Premium in Eminent Domain*, 113 COLUM. L. REV. 593, 594–595 (2013) (“The Supreme Court has elaborated . . . defining ‘just compensation’ as the taken property’s ‘fair market value,’ and in turn defining ‘fair market value’ as the price that would be agreed to by a willing seller and a willing buyer.” (first citing *Olson v. United States*, 292 U.S. 246, 255 (1934); and then citing *United States v. Miller*, 317 U.S. 369, 374 (1943))); Wayne Lusvardi & Charles Warren, *California’s Cap-and-Trade Water Proposal: A Planner’s ‘Market’ (Part I)*, MASTER RESOURCE (Feb. 20, 2014), <https://www.masterresource.org/california-state-energy-issues/california-water-cap-and-trade-1/> [https://perma.cc/T65S-CDJG] (“For the most part there is no such thing as the ‘fair market value’ of water in California because water is a [free] socialized public good.”); *id.* (“It is the cost to capture, store, convey, and treat water that translates into what is called its price.”).

215. Chris Nichols, *CA Still Tied to Gold Rush-era Water Rights System*, SAN DIEGO UNION-TRIB. (Apr. 25, 2015, 5:00 PM), <http://www.sandiegouniontribune.com/news/2015/apr/25/sacramento-drought-california-water-right-system/> [https://perma.cc/LNN3-8F6F] (“California’s water rights structure dates to the Gold Rush era, when miners and later farmers made claims by posting notices to trees along waterways.”).

216. Boxall, *supra* note 32 (describing the litigation accompanying the State Water Board cutting senior water rights, and noting that there is a “lack of good diversion information,” which “raises the question of how the state board can determine what rights to curtail and when”); see Gale Courey Toensing, *Agua Caliente Water Rights Lawsuit Puts Agencies in Hot Water*, INDIAN COUNTRY TODAY MEDIA NETWORK (July 17, 2013), <http://indiancountrytodaymedianetwork.com/2013/07/17/agua-caliente-water-rights-lawsuit-puts-agencies-hot-water-150441> [https://perma.cc/8UXH-AH2V] (“The Agua Caliente Band of Cahuilla Indians has launched a legal battle, based on its aboriginal water rights, for clean water and plenty of it for its citizens and neighboring communities in the Coachella Valley.”).

ultimately enable the state to control unsustainable land development, as well as distribute water more efficiently.

*D. Water Use Regulations: When Water is Not Regarded
as Private Property*

A third possible justification for the state taking private water use rights is that the state could argue it is imposing use regulations on private water rights holders, and that water rights are public, not private, property rights. Use regulations are limited, however, by the regulatory takings doctrine.²¹⁷

1. The Right to Use, Not Own, Water

Regulatory takings of property by the government are prohibited under the California Constitution unless the government pays the owner just compensation and affords the owner due process under the law.²¹⁸ However, the state could categorize the taking of water rights as a use regulation, and claim that there were no private property rights to take, and rather they were curbing the private use of the state's property.²¹⁹ Technically, water rights are a variety of property rights, but the holders of water rights do not own the water itself; instead, holders of water rights are authorized to divert the water from a source and put it to a beneficial, prudent use.²²⁰ In

217. U.S. CONST., amend. V; CAL. CONST. art. I, § 19; *see* Allegretti & Co. v. County of Imperial, 42 Cal. Rptr. 3d 122, 130–31 (Ct. App. 2006) (holding that the county's imposition of a permit condition that limited the quantity of groundwater available for the owner's use was not a permanent physical occupancy or invasion that would be considered a physical "taking").

218. CAL. CONST. art. I, § 19; *see* U.S. CONST. amend. XIV ("[N]or shall any State deprive any person of life, liberty, or property, without due process of law."); *see* Craig Anthony (Tony) Arnold, *Proceedings From the Symposium on the Law and Policy of Ecosystem Services: The Structure of the Land Use Regulatory System in the United States*, 22 J. LAND USE & ENVTL. L. 441, 449 (2007) ("While constitutional rights and structural provisions provide some very broad parameters for land use regulators (mostly local government officials), state statutes and provisions in local city codes and charters provide legal parameters that are more numerous, more frequently applicable, and more constraining than are constitutional doctrines.").

219. CAL. WATER CODE § 102 (West 2009) ("All water within the state is the property of the people of the State . . ."); *see* Sandra B. Zellmer & Jessica Harder, *Unbundling Property in Water*, 59 ALA. L. REV. 679, 684 (2008) ("Instead of perpetuating the commonly employed 'bundle of rights' metaphor to describe property, we seek an organic, two-dimensional symbol that better reflects property-based relationships with things.").

220. *Water Rights Process*, *supra* note 22 ("A water right is a legal entitlement authorizing water to be diverted from a specific source and put to beneficial, nonwasteful use."); *see* Shelley Ross Saxer, *The Fluid Nature of Property Rights in Water*, 21 DUKE ENVTL. L. & POL'Y 49, 53 (2010) ("While the majority of state legislatures and state and federal courts continue to talk about water rights in property terms, water rights are generally viewed not as actual property rights subject to a taking under the Fifth Amendment, but as usufructuary

California, it is unclear whether a water rights holder would have a valid claim when the government interferes with a vested right that does not equate to ownership.²²¹

Prescriptive water rights especially can and should be eliminated under the regulatory use doctrine. Prescription is a specific method of obtaining water rights that also does not result in the ownership of water; it only results in the right to *use* the water.²²² Prescriptive rights may be acquired by an appropriative taking of water if the use is “actual, open and notorious, hostile and adverse to the original owner, continuous and uninterrupted for the statutory period of five years, and under a claim of right.”²²³ Prescriptive rights are difficult to obtain, can only be approved by a court, and are rarely approved

rights, or a license from the state or federal government that can be revoked and is governed by contract rights.”).

221. BILL HIGGINS, INST. FOR LOCAL GOV'T, REGULATORY TAKINGS AND LAND USE REGULATION: A PRIMER FOR PUBLIC AGENCY STAFF 1, 16 (July 2006), http://www.ca-ilg.org/sites/main/files/file-attachments/resources__Takings_1.pdf [<https://perma.cc/ECY2-82LE>] (“Can a property owner claim a compensable taking when a public agency interferes with a vested right? The answer is not entirely clear. California courts have not addressed this issue directly.”).

222. Prescription is addressed in the California Civil Code:

Occupancy for the period prescribed by the Code of Civil Procedure as sufficient to bar any action for the recovery of the property confers a title thereto, denominated a title by prescription, which is sufficient against all, but no possession by any person, firm or corporation no matter how long continued of any land, water, water right, easement, or other property whatsoever dedicated to a public use by a public utility, or dedicated to or owned by the state or any public entity, *shall ever ripen into any title, interest or right against the owner thereof.*

CAL. CIV. CODE § 1007 (West 2007) (emphasis added); see *About California Water Rights*, E. MUN. WATER DIST., <http://www.emwd.org/services/drinking-water-service/water-supply/about-california-water-rights> [<https://perma.cc/X6WD-53S9>] (last visited Nov. 11, 2016) (“Claim of a prescriptive water right to non-surplus water by an appropriator must be supported by many specific conditions which include a showing that the pumping was actual, open, notorious, hostile, adverse to the overlying user, continuous and uninterrupted for five years, and under a claim of right.”); see also Ella Foley-Gannon, *Institutional Arrangements for Conjunctive Water Management in California and Analysis of Legal Reform Alternatives*, 14 HASTINGS W.-N.W. J. ENV. L. & POL’Y 1105, 1125 (2008) (“Such prescriptive rights [established by public agencies against private groundwater users] may become superior to the overlying landowners’ rights.”).

223. *City of Pasadena v. City of Alhambra*, 207 P.2d 17, 29 (Cal. 1949) (“Prescriptive rights are not acquired by the taking of surplus or excess water, since no injunction may be issued against the taking and the appropriator may take the surplus without giving compensation; however, both overlying owners and appropriators are entitled to the protection of the courts against any substantial infringement of their rights in water which they reasonably and beneficially need.” (citing *Peabody v. City of Vallejo*, 40 P.2d 486, 491–92 (1935))).

in California.²²⁴ This category can and should be eliminated under the regulatory use doctrine, because these rights are usufructuary and can be limited by state use regulations on public property.²²⁵

2. Lucas, Penn Central, and Reasonable Beneficial Use

The federal government has determined whether state action constitutes a use regulation, or has gone too far and is considered a regulatory taking. For example, in the quintessential takings case *Lucas v. South Carolina Coastal Council*, petitioner landowner bought two lots of property on which he planned on building homes.²²⁶ After the South Carolina Legislature enacted the Beachfront Management Act, petitioner could not build homes on his two lots, and the trial court rendered his property valueless.²²⁷ The United States Supreme Court held that a state regulation that “deprives land of all economically beneficial use” is considered a taking, and the state must pay the owner compensation.²²⁸ The Court noted that South Carolina could not simply argue that the petitioner’s desired uses for the land were inconsistent

224. *Frequently Asked Questions*, CAL. ENVTL. PROT. AGENCY, http://www.waterboards.ca.gov/waterrights/board_info/faqs.shtml [<https://perma.cc/92F4-XDC2>] (last visited Nov. 11, 2016) (“Prescriptive rights are difficult to obtain and can only be granted by a court. Most people in California do not have and cannot acquire a prescriptive right.”).

225. *City of Santa Maria v. Adam*, 149 Cal. Rptr. 3d 491, 516 (Ct. App. 2012) (“That is, the usufructuary right ‘is a right to use a watercourse, to avail oneself of its fruits by diversion, which therefore provides (1) an opportunity (2) to use beneficially (3) the diverted water.’” (citation omitted)).

226. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1006–07 (1992); see Hope M. Babcock, *Should Lucas v. South Carolina Coastal Council Protect Where the Wild Things Are? Of Beavers, Bob-o-Links, and Other Things That Go Bump in the Night*, 85 IOWA L. REV. 849, 853 (2000) (“This Article suggests that *Lucas* was primarily an attempt by the Court to simplify the judicial task of resolving what Robert Gordon refers to as the ‘hard cases’ involving land disputes, and that, with respect to laws protecting wildlife, the Court did not succeed in its quest.” (citing Robert Gordon, *Paradoxical Property*, in *EARLY MODERN CONCEPTIONS OF PROPERTY* 95, 101 (John Brewer & Susan Staves eds., 1995))).

227. *Lucas*, 505 U.S. at 1007; see Benjamin Allee, *Drawing the Line in Regulatory Takings Law: How a Benefits Fraction Supports the Fee Simple Approach to the Denominator Problem*, 70 FORDHAM L. REV. 1957, 1959 (2002) (explaining that the denominator problem occurs when a regulation causes an economic impact to a person’s land, and the court can represent the takings analysis with a fraction); *id.* (“[T]he numerator is the economic harm to a particular parcel caused by a government regulation.”); *id.* (“[T]he denominator is the total unregulated economic value of the relevant parcel against which the economic harm is compared.”).

228. *Lucas*, 505 U.S. at 1027; see *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104 (1978); see also *Eminent Domain/Regulatory Takings*, PROP. RIGHTS ALLIANCE, <http://www.propertyrightsalliance.org/eminent-domain-regulatory-takings-a2909> [<https://perma.cc/8Y5S-AX6N>] (last visited Nov. 11, 2016) (“Regulatory takings occur when the government literally regulates a piece of property out of the hands of its private owner without actually changing the titled ownership.”).

with the public interest, because a state may not “transform private property into public property without compensation.”²²⁹

Similarly, in *Penn Central Transportation Co. v. New York City* (*Penn Central*), the Supreme Court held that the plaintiffs did not establish a taking when they were barred from building above Penn Central Station, because the restrictions: 1) promoted the general welfare, 2) permitted reasonable beneficial use of the landmark site, and 3) allowed plaintiffs the chance to enhance the terminal and other properties.²³⁰ Here, the Court again stated that a takings claim was satisfied “only by proof that the regulation deprived them of all reasonable beneficial use of the property.”²³¹

3. Use Regulations of Public Water Would Promote the General Welfare and Put Public Water to Reasonable Beneficial Use

If the state can justify to courts that it is regulating the use of water and not taking private property, it could succeed in regulating water use under a regulatory use argument. Taking prior appropriation water rights equates to a regulation of water use.²³² It is not seizing private property through the

229. *Lucas*, 505 U.S. at 1031 (quoting *Webb’s Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155, 164 (1980)); see also John E. Fee, *The Takings Clause as a Comparative Right*, 76 S. CAL. L. REV. 1003, 1041 (2003) (explaining that if we reconceive the regulatory takings doctrine as a comparative right, “the antidiscrimination interpretation of the Takings Clause suggests that we recognize regulatory takings in relation to how the government regulates other owners”).

230. *Penn Cent. Transp. Co.*, 438 U.S. at 138 (1978); see David L. Callies, *Regulatory Takings and The Supreme Court: How Perspectives on Property Rights Have Changed from Penn Central to Dolan, and What State and Federal Courts Are Doing About it*, 28 STETSON L. REV. 523, 534 (1999) (explaining that the Court in *Penn Central* held that “‘taking’ jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated,” and rather the Court focuses on the “character of the action” and the “nature and extent of the interference with rights in the parcel as a whole”).

231. *Penn Cent. Transp. Co.*, 438 U.S. at 119; see *Dolan v. City of Tigard*, 512 U.S. 374, 386 (1994) (holding that in order to determine an unconstitutional taking where conditions required the dedication of land to a city in order to grant a building permit, the court must determine whether a nexus exists between a legitimate state interest and the permit conditions, and if so, whether the city has shown a proportionality between the exactions and the projected impact of the proposed development).

232. Higgins, *supra* note 221, at 15 (“Not all interests in property rise to the level of a recognized property right.”); *id.* (“The status of contract deliveries of water to farmers and irrigation districts through state and federal water projects is an example.”); see *Allegretti & Co. v. County of Imperial*, 42 Cal. Rptr. 3d 122, 130–31 (Ct. App. 2006) (holding that the county’s imposition of a permit limiting the total quantity of groundwater available for

eminent domain doctrine.²³³ Under *Lucas v. South Carolina Coastal Council*, the state could argue that it is not depriving private individuals or entities of their property, or senior water rights and appropriated rights, because they only acquired the *right to use* the state's property in the first place.²³⁴ *Penn Central* is distinguishable because it dealt with regulating the air space above the train station, protected by New York City's Landmarks Preservation Law.²³⁵ However, under *Penn Central*, the state would still likely have a good case, because: 1) the restriction would benefit the general welfare by allowing the state to manage water supplies more efficiently throughout the state; and 2) the owner of the right would still obtain water, it would just come from the state's control, and the water would be put to reasonable beneficial use.²³⁶ The third *Penn Central* factor does not directly apply because water is not a landmark.²³⁷

his use is not a physical taking, because the county did not encroach on his property, nor did it appropriate, impound, or divert any of his water).

233. Higgins, *supra* note 221, at 16 (noting that it is unclear if a property owner can claim a taking if a public agency "interferes with a vested right"). *But see* *Washoe County v. United States*, 319 F.3d 1320, 1326 (Fed. Cir. 2003) (finding a physical taking where the government physically diverted water for its own consumptive use, or decreased the amount of water accessible by the owner of the water rights).

234. *Lucas* discusses how the government must compensate the owner of property when he sacrifices all economically beneficial uses of his property to the government, where here, water is not "owned" property. *Lucas*, 505 U.S. at 1019; *see also Water Rights Process*, *supra* note 22 ("Water rights are property rights, but their holders do not own the water itself.").

235. *Penn Cent. Transp. Co.*, 438 U.S. at 109–10 ("[New York City] acted from the conviction that 'the standing of [New York City] as a world-wide tourist center and world capital of business, culture and government' would be threatened if legislation were not enacted to protect historic landmarks and neighborhoods from precipitate decisions to destroy or fundamentally alter their character." (citation omitted)). New York City's Landmark Preservation Law has been updated since *Penn Cent. Trans. Co.* For information on New York City's Landmarks Preservation Law in its current form, see Landmarks Preservation and Historic Districts, N.Y.C. ADMIN. CODE § 25-301 et seq. (West 2015). *See also History of The LPC & The Landmarks Law*, NYC LANDMARKS PRESERV. COMM'N, <http://www1.nyc.gov/site/lpc/about/about-lpc.page> [<https://perma.cc/EHX9-F6ZW>] (last visited Nov. 11, 2016).

236. *Penn Cent. Transp. Co.*, 438 U.S. at 138; *see* Steven J. Eagle, *The Four-Factor Penn Central Regulatory Takings Test*, 118 PENN. ST. L. REV. 601, 612 (2014) (discussing how a fourth factor taking into account the "parcel as a whole" rule would be beneficial in specifying the physical boundaries of a parcel of land in which the three factors play out, and that would help shape the meaning of the existing three factors).

237. *Penn Cent. Transp. Co.*, 438 U.S. at 138 ("[The restrictions] also afford appellants opportunities further to enhance not only the Terminal site proper but also other properties."); *see History of The LPC & The Landmarks Law*, *supra* note 235 ("The Commission was created in 1965 through groundbreaking legislation signed by the late Mayor Robert F. Wagner in response to the mounting losses of historically significant buildings in New York City, most notably Pennsylvania Station.").

Furthermore, under this doctrine it can be reasonably inferred that the state's power can also end the practice of prescription of water rights, and take water back as its own property.²³⁸ Because prescription is based on the right to use water, the state can take back the right to use through use restrictions.²³⁹ Eliminating this category would support efficiency between water use and land development, because the state would add to its control over the water source in California and be in a better position to manage the amount of water each area should receive.

IV. PROPOSED LEGISLATIVE AND POLICY CHANGES TO CONFORM WATER MANAGEMENT AND DISTRIBUTION WITH LAND DEVELOPMENT

To encourage efficiency in both water distribution and land development in California, the legislature should amend the California Constitution to explicitly enable the state to take control over water rights from senior water rights holders and appropriators, as well as control and redefine the requirements in general plans.²⁴⁰

A. Amending California's Constitution

California currently employs bureaucratic regulation to manage its water supply.²⁴¹ The State Water Board is the only agency with authority to

238. CAL. CONST. art. X, § 2; see O'Dea, *supra* note 126, at 439 (noting that the state can assert that public trust resources, including navigable waters, are public property within the state's public trust jurisdiction).

239. CAL CONST. art. X, § 2; Jennifer N. Horchem, Comment, *Water Scarcity: The Need to Apply a Regulatory Takings Analysis to Partial Restrictions On Water Use*, 48 WASHBURN L.J. 729, 748 (2009) ("Here, the water district only had a right to use water—a non-possessory property interest—which cannot be physically occupied by a mere restriction on use.").

240. Bettina Boxall, *California Moves to Restrict Water Pumping by Pre-1914 Rights Holders*, L.A. TIMES (June 12, 2015, 5:01 PM), <http://www.latimes.com/local/lanow/la-me-ln-drought-water-rights-20150612-story.html> [<https://perma.cc/X9KT-LTNF>] ("For the first time in nearly 40 years, state regulators are telling more than 100 growers and irrigation districts with some of the oldest water rights in California that they have to stop drawing supplies from drought-starved rivers and streams in Central Valley.").

241. Sue McClurg, *Water Management in California*, WATER ENCYCLOPEDIA, <http://www.waterencyclopedia.com/Bi-Ca/California-Water-Management-in.html> [<https://perma.cc/HZB2-LSTE>] (last visited Nov. 11, 2016) (noting that key agencies involved in water issues include the California Department of Water Resources, the California State Water Resources Control Board, the California Department of Health Services, the U.S. Bureau of Reclamation,

administer water rights in California; however, local governments, water districts, and the California Regional Water Quality Control Boards have authority over other water-related matters such as maintaining adequate water supplies and water quality, as well as making responsible land use decisions.²⁴² This proposal recommends that the state legislature should first amend California Constitution Article X, Section 2 to expand the State Water Board's authority and enable it to revoke private water rights.²⁴³ The new added language would provide:

The State has the legal police power to take back all types of private water use rights, including but not limited to riparian rights, senior rights, and appropriated rights, in times of water shortage or at any time the State determines that water in the State is not being put to beneficial and reasonable use. The State must then centralize control over the water rights, and redistribute the water in the most beneficial and reasonable way to the local water managers of the State.

With this explicit language in place, the State Water Board would be immune from claims by private water rights holders that the state illegally took their private rights. The state also could justify the legality of this new language

the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Geological Survey); *see* CAL. DEP'T OF WATER RES., <http://www.water.ca.gov/> [<https://perma.cc/5V9U-J9Q6>] (last updated Oct. 7, 2016) ("The Department of Water Resources (DWR) is responsible for managing and protecting California's water."); *id.* ("DWR works with other agencies to benefit the state's people . . ."); *see Water Rights Process*, *supra* note 22 (discussing how California blends two kinds of water rights: riparian rights and appropriative rights).

242. *About Us*, CAL. DEP'T OF WATER RES., <http://www.water.ca.gov/aboutus.cfm> [<https://perma.cc/C4UE-VYFG>] (last updated July 19, 2016) ("Working with other agencies and the public, DWR develops strategic goals, and near-term and long-term actions to conserve, manage, develop, and sustain California's watersheds, water resources, and management systems."); *Water*, LOCAL GOV'T COMM'N, <http://www.lgc.org/the-issues/water/> [<https://perma.cc/E5AD-695H>] (last visited Nov. 11, 2016) ("Maintaining adequate water supplies and water quality, and protecting the beneficial uses of water depends largely on land use decisions made by local government."); *Water Board's Structure*, *supra* note 61 ("The mission of the Water Board is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses."); *see* Tim Reid, *In California Drought, Big Money, Many Actors, Little Oversight*, REUTERS (Apr. 25, 2014, 7:19 AM), <http://www.reuters.com/article/us-usa-california-water-insight-idUSBREA3O0YF20140425> [<https://perma.cc/E4U4-G3CK>] ("There are so many [local water] agencies [providing the state with water], in fact, that the California Department of Water Resource, which is responsible for managing and protecting the state's water, concedes that it does not even know the exact number.").

243. Tim Hearnden, *Calif. Issues Shutoff Orders to 114 Senior Water Right Holders*, CAP. PRESS (June 12, 2015, 2:32 PM), <http://www.capitalpress.com/California/20150612/calif-issues-shutoff-orders-to-114-senior-water-right-holders> [<https://perma.cc/EUN9-C8UF>] ("Still, the latest shutoffs . . . were the state's first widespread curtailments of senior water right holders since 1977."); *id.* ("[The shutoffs] prompted an immediate response from the California Farm Bureau Federation, which again blamed a lack of water storage for the shortage.").

through the public trust doctrine, eminent domain doctrine, or regulatory use doctrines discussed above.²⁴⁴

The state will have to revoke existing permits from appropriators, and inform senior water rights holders that they cannot continue using water without prior state approval.²⁴⁵ California would likely not be successful in using the “share and share alike” principle that governs in most eastern states’ water law, because eastern states have different rainfall patterns and are not faced with water shortages like California.²⁴⁶ Therefore, continuing with the bureaucratic process in place is California’s best option, although authority must be centralized more in the State Water Board through this new ability to revoke private water rights.

The state can attempt to validate its actions against any takings claims through the public trust doctrine, the concept of eminent domain, or a regulatory use claim discussed above, because the state’s goal is to improve California’s welfare.²⁴⁷ One alternative to amending the constitution would be to allow state courts to redefine water rights in California as purely public rights, or alternatively, not enforce private water use rights when the state takes the rights back, because state courts traditionally have the authority to enforce water rights.²⁴⁸ However, this process of creating a solution through common law reform would take too long. By eliminating private water use rights and giving the state legislature more direct control through the immediate effect of a constitutional amendment, the state will be also better equipped to coordinate water and land development. Besides a constitutional amendment,

244. See *supra* Part III.

245. *Water Rights*, *supra* note 27 (explaining that the State Water Board can modify permits and licenses it issued to require more protection of water resources, but it must provide the permit or license holder with notice and opportunity for a hearing before it makes changes).

246. *Water Rights*, *supra* note 27; see Arnold, *supra* note 154 (“In contrast [to the western states’ prior appropriation doctrine], the riparian doctrine that pertains where water is more plentiful [such as in eastern states] follows a share-and-share-alike principle where everyone (or at least each riparian) is entitled to a reasonable share of the water resource . . .”).

247. See *supra* Part III; O’Dea, *supra* note 126, at 440 (explaining the history and definition of the public trust, notably that “[California’s] public trust doctrine is the legal principle that the state is trustee of certain natural resources held ‘in trust’ for the people”).

248. *Water Rights Process*, *supra* note 22 (explaining that beyond administering permits and licenses to water use rights, the State Water Board has other responsibilities, including statutory adjudication in determining all water rights in a stream system, and court reference); *id.* (noting that a court decree ultimately determines the water rights in the stream system at issue, and the State Water Board can act as a “referee in water right lawsuits” in recommending a decision or answering questions of fact).

the state can implement a separate law mandating a statewide standard form general plan, discussed below, with stricter requirements for ascertaining an available water supply and creating sustainable development plans prior to building or developing land.²⁴⁹

B. Reforming General Plans

Cities and counties must have general plans when they want to develop land in accordance with available water sources, and these plans should have more stringent conservation requirements to actually manage water resources more efficiently.²⁵⁰ Several options to coordinate land use planners and water agencies include redefining the coordination requirement of the conservation element in general plans to facilitate cooperation between land developers and water agencies.²⁵¹ For example, Sonoma County passed the 2020 Sonoma County General Plan in 2008.²⁵² The plan requires the

249. See *infra* Part IV (b); see SAN DIEGO INTEGRATED REG'L WATER MGMT., LAND USE AND WATER MANAGEMENT STUDY 1, 14 (2013), <http://www.sandiego.gov/citycouncil/committees/wpitf/pdf/rwmlandusestudycombined.pdf> [<https://perma.cc/FVF2-686J>] (explaining that San Diego's 2013 Integrated Regional Water Management Plan Update aims to improve communication between water resources and land use planners through "grants, new or existing working groups and collaborations, preparation of work products, . . . and dissemination of information."); see also Jeremy Madsen, *What is Smart Growth? A Water-Conservation Tool*, WATER DEEPLY (Dec. 17, 2015), <http://www.waterdeeply.org/op-eds/2015/12/9179/smart-growth-water-conservation-tool/> [<https://perma.cc/4GUL-CE3X>] (explaining that smart growth development, a pattern that mixes housing types and different kinds of businesses in a water-conscious manner, is an effective way to use less water in new land developments).

250. CAL. GOV'T CODE §§ 65302–65303.4 (West 2010). For an example of Arizona's general plan system that enables more state control of land development with available water supplies, see Ed Bolen et al., *Smart Growth: A Review of Programs State by State*, 8 HASTINGS W.-N.W.J. ENV. L. & POL'Y 145, 151 (2002) ("[The Growing Smarter Plus package] increases citizen involvement in community planning by [giving municipalities stronger tools to control urban sprawl and] requiring votes on general plans of large and growing communities at least once every ten years.").

251. FIRMACION & RASKIN, *supra* note 6, at 4 (providing recommendations to facilitate coordination between land planners and water managers, including "redefining the 'coordination' requirement of the conservation element in general plans to facilitate coordination . . ."). For an example of efforts to facilitate water agency and land development coordination, see THAD BETTNER ET AL., CAL. ROUNDTABLE ON WATER & FOOD SUPPLY, APPLYING THE CONNECTIVITY APPROACH: GROUNDWATER MANAGEMENT IN CALIFORNIA'S KINGS BASIN 1, 8 (2015), http://www.aginnovations.org/uploads/result/1431289041-3c5f8f9ff686f5e5c/Kings_Basin_Report.pdf [<https://perma.cc/T579-32DA>] ("Cooperation between land use planning authorities and water agencies is critical to the realization of a sustainable water budget, and the [Kings Basin Water Authority] has become a forum where the two sectors interact.").

252. *Sonoma County General Plan 2020*, PERMIT & RES. MGMT. DEP'T, <http://www.sonoma-county.org/PRMD/gp2020/index.htm> [<https://perma.cc/E4RM-4TBV>] (last updated

county to “work with” and “cooperate” with public water agencies to accomplish the goals in the plan.²⁵³ This is a more stringent requirement than the coordination requirement in California law, because it requires a measure of cooperation between the county and water agencies rather than simple coordination.²⁵⁴ The cooperation requirement exemplifies that there should be a statewide requirement that public water agencies can oppose land development if it will use water irresponsibly, and public water agencies must work with and cooperate with land developers.²⁵⁵ Waiting for Sonoma County’s example to occur in every county across the state would be to condemn the California water supply; this would simply take too long.

Nov. 11, 2016) (describing the Sonoma County General Plan 2020); *see* FIRMACION & RASKIN, *supra* note 6, at 25–27.

253. *Sonoma County General Plan 2020*, *supra* note 252; SONOMA COUNTY PERMIT & RES. MGMT. DEP’T, SONOMA COUNTY GENERAL PLAN 2020: LAND USE ELEMENT, at LU-44 (2008), <http://www.sonoma-county.org/prmd/gp2020/lue.pdf> [<https://perma.cc/694S-E9B5>] (“Coordinate with operators of public water systems to provide an adequate supply to meet long term needs consistent with general plans and urban water management plans.”).

254. GOV’T § 65302(d)(1) (“That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies”); *see, e.g.*, SONOMA COUNTY PERMIT & RES. MGMT. DEP’T, SONOMA COUNTY GENERAL PLAN 2020: WATER RES. ELEMENT, at WR-17, WR-21-23, WR-28 (2008), <http://www.sonoma-county.org/prmd/gp2020/wre.pdf> [<https://perma.cc/E5GD-V98D>]. For an example of a General Plan that does not include a specific “cooperation” element, *see* SAN DIEGO COUNTY GENERAL PLAN: A PLAN FOR GROWTH, CONSERVATION, AND SUSTAINABILITY 1–19 (Aug. 2011), http://www.sandiegocounty.gov/pds/gpupdate/docs/GP/Cover_Intro_Vision.pdf [<https://perma.cc/GQ2N-4SKF>] (noting that water conservation, sustainable development, and drought-efficient landscaping are a few of the city’s strategies to conserve and reduce water consumption).

255. CAL. GOV’T CODE § 66473.7 (West 2009) (explaining that a “sufficient water supply” is a condition for a tentative map for new land development and planning, which requires considering many factors including, but not limited to, the availability of water supplies over twenty years, the amount of water that the water supplier can reasonably rely on receiving from other water supply projects, and other factors); *see* CAL. WATER CODE § 10910(b) (West Supp. 2016) (“The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project”); *see also* Ry Rivard, *New Houses Won’t Drain Our Water Supply*, VOICE OF SAN DIEGO (May 4, 2015), <http://www.voiceofsandiego.org/topics/land-use/new-houses-wont-drain-our-water-supply/> [<https://perma.cc/U8DS-HP5R>] (“The San Diego County Water Authority expects the county will have enough water to accommodate a growing population and new development for the foreseeable future, including major projects like the controversial One Paseo in Carmel Valley.”).

The state can take this as an example of a broader government authority to create a standard form general plan, including general requirements for cooperation between land developers and water agencies, as well as a requirement for a certain amount of water available to build new developments.

Several counties and cities have taken similar approaches to Sonoma County and have attempted to harmonize land development with scarce water resources in California.²⁵⁶ These are microcosms of what the state legislature can do; if the state were to take similar measures in a large scale, perhaps much more change could eventually occur.²⁵⁷ First, in the City and County of San Francisco, the Residential Water Conservation Ordinance of 1992—amended in 2009—requires owners of most residential buildings to “obtain a certificate of compliance before they transfer title after a sale.”²⁵⁸ The certification requires, for example, low-flow showerheads, efficient toilets, and leak detection and repair.²⁵⁹ Second, Sacramento’s Water Conservation Plan, implemented on October 29, 2013, includes in part a discussion of how water conservation instead of adding infrastructure can meet most of

256. Henderson, *supra* note 114, at 11 (“Civil Code Section 1101.8 permits local governments and retail water suppliers to enact ordinances or adopt regulations that promote compliance with or exceed water savings targets . . . many cities and counties have enacted ordinances regarding water conservation and efficiency.”); *see also* TULLY & YOUNG, N. CAL. WATER ASS’N, SACRAMENTO VALLEY: LAND USE/WATER SUPPLY ANALYSIS GUIDEBOOK 1, 21–30 (Nov. 2007), <http://www.norcalwater.org/res/docs/NCWA-guidebook-final.pdf> [<https://perma.cc/9EVW-BUPU>] (“Commonly referred to as ‘SB 610 Water Supply Assessment,’ Water Code section 10910 et seq. outlines the necessary information and analysis that must be included in an environmental impact report (EIR) to ensure that a proposed land development has a sufficient water supply to meet existing and planned water demands over a 20 year projection.”).

257. Henderson, *supra* note 38, at 11 (“The bulk of water conservation work is done at the local level with many local governments adopting regulations or ordinances mandating water conservation and efficiency.”); *see* Melanie Curry, *For First Time in Over a Decade, State to Update Local Planning Guidelines*, STREETS BLOG (Nov. 4, 2015), <http://cal.streetsblog.org/2015/11/04/for-first-time-in-over-a-decade-state-to-update-local-planning-guidelines/> [<https://perma.cc/4MLZ-J6WU>] (explaining that California’s Office of Planning and Research is updating its General Plan Guidelines, which occurs every ten to fifteen years, and helps cities and counties promote future growth that must be consistent with the general plan).

258. Henderson, *supra* note 38, at 11; *see What You Should Know About the Residential Energy Conservation Ordinance (RECO)*, S.F. DEP’T OF BUILDING INSPECTION 1, 2–3 (2007), http://www.sfdbi.org/ftp/uploadedfiles/dbi/Key_Information/ResidentialEnergyConservationOrdinance.pdf [<https://perma.cc/N2VN-9QUM>] (“Owners of residential property who wish to sell their property, must obtain a valid inspection, install certain energy and water conservation devices or materials and then obtain a certificate of compliance.”).

259. Henderson, *supra* note 38, at 12 (“Certification requires low-flow showerheads, faucets and faucet aerators, efficient toilets, and leak detection and repair, among other criteria [that mirror Civil Code Section 1101.3(c)’s standards.]”); *see Residential Water Conservation*, S.F. WATER POWER SEWER, <http://www.sfwater.org/index.aspx?page=688> [<https://perma.cc/48JQ-KRRB>] (last visited Nov. 11, 2016) (“Inefficient plumbing fixtures manufactured and installed prior to 1994 must be replaced with efficient fixtures [in compliance with the 2009 ordinances].”).

the city's future water demand.²⁶⁰ Third, the City of Petaluma's Water Conservation Regulations Ordinance requires efficient water use for new construction and existing customers, as well as lays out new development standards and regulations prohibiting water waste.²⁶¹

While all of these cities are taking steps in the right direction in attempting to curb water waste and promote efficiency, these minor changes are valiant efforts but are simply not enough to solve an entire state's problem.²⁶² The state should impose one standard form general plan with requirements

260. Henderson, *supra* note 38, at 12; *Water Conservation and Drought in Sacramento County*, SACRAMENTO COUNTY, <http://www.saccounty.net/waterconservation/Pages/WaterConservation.aspx> [<https://perma.cc/NWR5-M4QC>] (last visited Nov. 11, 2016) ("Sacramento County has been working steadily to reduce the amount of water used in our operations, from reducing landscape irrigation, to installing low-use plumbing fixtures, and to reducing watering of our parks."); *see also* Debbie Arrington, *Hoping Drought Lessons Stick for Sacramento Water Users Despite Rain*, SACRAMENTO BEE (Feb. 23, 2016, 4:01 PM), www.sacbee.com/news/state/california/water-and-drought/article62119742.html [<https://perma.cc/GZS2-R53L>] ("After months of conserving 25 percent or more on water use, Sacramento-area consumers pulled back by only 11 percent—less than half the target savings—in January compared with that same month in 2013, the baseline year used for state conservation comparisons.").

261. PETALUMA, CAL., ORDINANCE NO. 2316, ch. 15.17, § 3 (2009), <http://www.cityofpetaluma.net/wrcd/pdf/2316-ncs-water-conservation.pdf> [<https://perma.cc/HF5Z-SPUH>] ("WHEREAS, adoption of a mandatory Water Conservation Ordinance with development standards, landscape water efficiency standards and water waste prohibitions will carry out General Plan policy, provide careful stewardship of water resources available to the City to provide for orderly application of water conservation measures, and will have the positive impact of creating substantial water savings."); *Water Resources and Conservation*, CITY OF PETALUMA, <http://cityofpetaluma.net/wrcd/waterconservation.html> [<https://perma.cc/J4FQ-KFE7>] (last visited Nov. 11, 2016) ("The City of Petaluma has several progressive water-saving programs and resources available to you to help you do your part to conserve water."); *see* Henderson, *supra* note 38, at 12.

262. Currently, California law requires that land use be coordinated with water resource management. CAL. GOV'T CODE § 65302(d)(1) (West 2010) ("That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies . . . coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county."). Rewording this provision to instead state the following, for example, could be beneficial in enforcing mandatory statewide cooperation of land development and water management: "That portion of the conservation element including waters shall be developed with full cooperation with any countywide water agency and with all district and city agencies . . . where cooperation is mandatory and shall include working together, sharing information, and establishing an available water supply that will sustain a new land development for at least 20 years into the future . . ." *See* Henderson, *supra* note 38, at 14 (noting that during the State Water Resources Control Board meeting on June 17, 2014, "the need for more statewide conservation measures was confirmed," and further measures beyond Governor Brown's mandatory 20% reduction in water use are necessary).

that must be met before development can commence, with secure water sources in place and sufficient water sources to sustain the number of people and businesses that will require the water. Land developers and water agencies must cooperate and understand each other in order to maintain efficient water management, but the state must take direct control over how land development is managed in the future.

The Local Government Commission provides suggestions for sustainable and environmentally friendly local growth plans, including avoiding auto-oriented land-use patterns, which cause water pollution and flooding.²⁶³ The Commission also suggests land development in already developed areas, creating “walkable,” mixed-transit developments, creating a funding source for purchasing and protecting valuable open space areas, and following the Ahwahnee principles for resource-efficient communities in the land use element of the general plan.²⁶⁴ The Ahwahnee principles call for “compact, walkable development,” and “hundreds of local jurisdictions have already adopted these principles, in whole or in part.”²⁶⁵ The state could use these suggestions as a framework for a state-mandated general form with a focus on sustainability.

263. LOCAL GOV'T COMM'N, LIVABLE COMMUNITIES AND WATER 1, 2 (2014), http://www.lgc.org/wordpress/docs/resources/water/water_livable_communities.pdf [<https://perma.cc/95Q6-P5UU>] (“One study demonstrated that compact, walkable development can reduce runoff caused by impervious surfaces like roads and parking lots] by two-thirds compared to sprawl development.”); see James A. Kushner, *Smart Growth, New Urbanism and Diversity: Progressive Planning Movements in America and Their Impact on Poor and Minority Ethnic Populations*, 21 UCLA J. ENVTL. L. & POL'Y 45, 48 (2002–03) (“Smart Growth calls for public subsidies for growth, such as facilities and infrastructure subsidies, being targeted at areas deemed appropriate for urbanization.”).

264. Patrick Stoner, *Sustainable Cities as Communities and Villages*, in SUSTAINABLE COMMUNITIES 45, 46–47 (Woodrow W. Clark II ed., 2010); LIVABLE COMMUNITIES AND WATER, *supra* note 263, at 3, 6 (“For the sake of preserving our water supplies, we need to grow in the form of compact, mixed-use, transit-oriented development.”); see F. Kaid Benfield, *The Environmental Impacts of Land Development Depend Largely on Where We Put It*, HUFFINGTON POST (Aug. 11, 2015, 8:53 AM), http://www.huffingtonpost.com/f-kaid-benfield/the-environmental-impacts_b_7967302.html [<https://perma.cc/4HV8-ZQ7H>] (“Whether a development has a good street pattern, is walkable, uses land efficiently, provides shops and other lifestyle conveniences and amenities conveniently accessible to homes, has green buildings and infrastructure, and so forth will have an effect on how it performs with respect to carbon emissions, air and water pollution, ecosystem conservation, and other environmental indicia.”).

265. LIVABLE COMMUNITIES AND WATER, *supra* note 263, at 3, 6; see also *Make Development Decisions Predictable and Fair: Compact Development Endorsement Program, San Francisco Bay Area Communities, California*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/smartgrowth/make-development-decisions-predictable-and-fair-compact-development-endorsement-program> [<https://perma.cc/CK4Q-6CCC>] (last updated Mar. 29, 2016) (“The [Greenbelt Alliance] has long realized that building more compactly allows communities to accommodate new growth, creates more housing and transportation options, and protect[s] open space.”).

Municipal water agencies and local governments will not become defunct or useless under this proposal. As noted above, local control is preferred to overarching state control for many reasons.²⁶⁶ Today, more state control is necessary in enforcing efficient land development with the current water supply. The state should be the initial distributor of the water to regions and counties and cities, and it should give the stamp of approval when municipalities want to expand or land developers want to create new communities. However, local agencies will be necessary to carry out the will of the state and enforce order within the region or locality. These local entities will also have to collaborate more with the state government to maintain efficiency and progress in both the water management and land development realms.

C. Funding

For this proposal to be successful, the State Water Board needs more funding if it can be expected to obtain more information about water use and plan effective strategies. For example, when the Board investigates a water right for public trust purposes, the burden of gathering information rests on the Board and it thus needs resources to be able to gather information.²⁶⁷ The Board is “chronically underfunded,” has a small staff, and thus has a very difficult time gathering the information necessary for the public trust adjudications.²⁶⁸ The state legislature can and should attempt to divert more of the budget to the State Water Resources Control Board.²⁶⁹ The federal

266. ASSEM. INTERIM COMM. ON WATER TO THE CAL. LEGISLATURE, GROUND WATER PROBLEMS IN CALIFORNIA, 26 ASSEM. INTERIM COMM. REP. 46 (1962); *see supra* Part II (a); *see also Water Management*, WASH. LOCAL GOV'T ASS'N, <http://walga.asn.au/Policy-Advice-and-Advocacy/Environment/Water-Management.aspx> [<https://perma.cc/8N4H-K656>] (last visited Nov. 11, 2016) (“Water Management is critically important for Local Governments . . .”).

267. O'Dea, *supra* note 126, at 450 (“Yet, perhaps the most significant obstacle to the Board’s ability to proactively manage California’s water systems is its lack of resources to conduct its own independent analyses of water rights.”); *see id.* at n.131.

268. Chris Megerian, *State Water Regulator Flexes New Muscle in Response to Drought*, L.A. TIMES (Apr. 14, 2015, 9:41 PM), <http://www.latimes.com/local/politics/la-me-pol-water-board-20150415-story.html> [(“How well it is able to enforce the governor’s orders will be a major test for the [State Water Resources Control Board], which Marcus [State Water Resources Control Board Chair] says remains underfunded.”)]; O'Dea, *supra* note 126, at 450.

269. *Environmental Protection*, GOVERNOR’S BUDGET 2015–16 (June 24, 2015), <http://www.ebudget.ca.gov/2015-16/Enacted/StateAgencyBudgets/3890/3940/departments.html> [<https://perma.cc/S9GD-Y2JS>] (explaining that currently, California’s Governor’s Budget

government can also contribute an increased budget to California to help with the Board's ability to gather information and implement new responsible water policy. This likely would not face much protest, given the importance of conserving and managing water, the impact of the current drought, and the need for increased governmental oversight over water distribution.²⁷⁰ This is an important cause for the entire United States to support, however, because California's water crisis will soon become the entire country's crisis, as the drought has and will continue to affect crop production and thus food production.²⁷¹ There are also dire effects on the environment, wildlife, and habitats that accompany California's water problems.²⁷²

for 2015-2016 allocates funding under the Environmental Protection portion of the budget, section 3940 to the State Water Resources Control Board); MAC TAYLOR, LEGIS. ANALYST'S OFF., THE 2015-16 BUDGET: EFFECTIVELY IMPLEMENTING THE 2014 WATER BOND 3 (Feb. 11, 2015), <http://www.lao.ca.gov/reports/2015/budget/water-bond/water-bond-021115.aspx> [<https://perma.cc/GYT7-AFX2>] (explaining that the State's 2015-2016 budget implements a \$7.5 billion water bond measure, and the budget proposes to appropriate \$533 million from Proposition 1 in 2015-16). To allocate more money for water management purposes, perhaps similar Propositions for water bonds should be proposed and passed. *See id.* California would also likely need to manage the budget so as to take money from other programs that are less *immediately* important, such as transportation or corrections and rehabilitation (although it is admittedly very difficult to choose an area that is less important or does not need funding). *See id.* Perhaps taxes must be raised in order to raise money for water management. *See* Howard Gleckman, *One Solution to California's Drought: Tax Water*, FORBES (Apr. 7, 2015, 3:08 PM), <http://www.forbes.com/sites/beltway/2015/04/07/one-solution-to-californias-drought-tax-water/#3f54946d223e> [<https://perma.cc/9PFP-GA2D>].

270. *Current Conditions*, CAL. DROUGHT, <http://www.californiadrought.org/drought/current-conditions/> [<https://perma.cc/NR8Z-BUN7>] (last visited Nov. 11, 2016) (depicting the status of California's drought, current reservoir conditions, a fire map, and more through charts and graphs); *see* FIRMACION & RASKIN, *supra* note 6, at 51 (noting that the policy implications of California Water Code Sections 10520-10523 (West 1992) water resources are more effectively managed when land use is considered, which requires more oversight from water management experts). For an example of a microcosm of the increased governmental control that must occur, *see* the Sustainable Groundwater Management Act, which increases local control over groundwater sources. CAL. WATER CODE §§ 10750-10756 (West 2009).

271. *California Drought: Farm and Food Facts*, U.S. DEP'T OF AGRICULTURE ECON RESEARCH SERV., <http://www.ers.usda.gov/topics/in-the-news/california-drought-farm-and-food-impacts.aspx> [<https://perma.cc/66UV-B33E>] (last updated Aug. 22, 2016) ("The ongoing drought in California is likely to have a major impact on the State's agricultural production."); Elizabeth Campbell & Megan Durisin, *California Farms Going Thirsty as Drought Burns \$5 Billion Hole*, BLOOMBERG (Jan. 28, 2014, 5:00 PM), <http://www.bloomberg.com/news/articles/2014-01-29/california-farms-going-thirsty-as-drought-burns-5-billion-hole> [<https://perma.cc/R32Z-TR47>] ("The drought in California, the top U.S. agricultural producer at \$44.7 billion, is depriving the state of water needed to produce everything from milk, beef, and wine to some of the nation's largest fruit and vegetable crops, including avocados, strawberries, and almonds.").

272. *Fixing California's Water System*, CAL. WATERFIX, www.californiawaterfix.com/ [<https://perma.cc/FJF6-ZENL>] (last visited Nov. 11, 2016) ("Without an update to our water infrastructure, the environment and the state's economy are at risk. We face serious potential

Furthermore, this proposal should not necessarily be implemented immediately. The 2015–2016 Governor's Budget, for example, appropriates funds from Proposition 1, passed in 2014, which will aid in water management measures.²⁷³ Proposition 1 continues the use of bond funds as the primary source of state funding for water-related programs.²⁷⁴ The outcome of this bond and others like it will likely be beneficial in analyzing when more bonds should be passed and for what amount.

D. Legality, Counter Arguments, and Drawbacks

The state is given control of water rights through the California Water Code, and it chooses when to appropriate rights.²⁷⁵ In fact, the State Water Board is the sole agency in charge of water rights, with the Division of Water Rights acting on its behalf on daily matters.²⁷⁶ Taking private water rights under the public trust justification is legal, if the state can successfully argue that private property rights do not exist in waterways, because they

for disruption to our water supplies causing job loss, higher food and water prices, and significant species decline.”).

273. TAYLOR, *supra* note 269 (explaining that the State's 2015–16 budget implements a \$7.5 billion water bond measure, and the budget proposes to appropriate \$533 million from Proposition 1 in 2015–16); *see also* Andrew Grinberg, *The California Budget: Big Wins for Water*, CLEAN WATER ACTION (June 26, 2015), <http://www.cleanwater.org/2015/06/26/california-budget-big-wins-water> [<https://perma.cc/V64S-J7J4>] (describing budget programs, including providing public access to existing groundwater data, and protecting water quality from the oil industry).

274. Water Quality, Supply, and Infrastructure Improvement Act of 2014, Cal. Stats. ch. 188 § 8 (West Supp. 2016); *2014 Water Bond*, ASS'N OF CAL. WATER AGENCIES, <http://www.acwa.com/spotlight/2014-water-bond> [<https://perma.cc/2VCY-45RR>] (last visited Nov. 11, 2016) (“The \$7.545 billion water bond approved overwhelmingly by California voters in November 2014 is expected to provide a significant infusion of funding for water projects and programs at a pivotal time in California water.”); TAYLOR, *supra* note 269.

275. *See, e.g.*, CAL. WATER CODE § 1201 (West 2009) (“All water flowing in any natural channel, excepting so far as it has been . . . otherwise appropriated, is hereby declared to be public water”); *see* CAL. WATER CODE § 1253 (West 2009) (“The board shall allow the appropriation for beneficial purposes of unappropriated water”); *see* CAL. WATER CODE § 1257 (West 2009) (“In acting upon applications to appropriate water, the board shall consider the relative benefit to be deprived from (1) all beneficial uses of the water . . . and (2) the reuse or reclamation of the water sought to be appropriated.”).

276. *Water Rights*, *supra* note 27 (“Within the State Water Board, the Division of Water Rights acts on behalf of the State Water Board for day to day matters.”); *About Us*, *supra* note 242 (“Working with other agencies and the public, DWR develops strategic goals, and near-term and long-term actions to conserve, manage, develop, and sustain California's watersheds, water resources, and management systems.”).

are the state's property and within the public trust.²⁷⁷ The proposal is also legal under a theory of eminent domain if the state provides just compensation for the rights it takes.²⁷⁸ Finally, under a regulatory use justification, the state could again argue that no private property rights exist in waterways, and the state is only regulating the use of water, not the property right in water.²⁷⁹ Furthermore, senior water rights are not absolutely guaranteed, and thus can legally be taken away.²⁸⁰ Of course, senior water rights holders will likely not approve of this plan, because they comprise the oldest water rights-holding group in California.²⁸¹ This dislike does not necessarily mean that the plan is illegal, however, especially if the state's authority is codified in the proposed constitutional amendment. The state can also revoke permits if it so desires, as long as it provides the appropriator with notice and opportunity for a hearing.²⁸² The proposal enlarges state government power,

277. CAL. CONST. art. X, § 2; O'Dea, *supra* note 126, at 439; see Scott Andrew Shepard, *The Unbearable Cost of Skipping the Check: Property Rights, Takings Compensation & Ecological Protection in the Western Water Law Context*, 17 N.Y.U. ENVTL. L.J. 1063, 1067 (2009) ("The federal public trust doctrine either is silent on the issue [of the compensation-stripping proposition], or along with the Fifth Amendment, affirmatively obliges compensation for vested water rights.").

278. U.S. CONST. amend. V; CAL. CONST. art. I, § 19; *Kelo v. City of New London*, 545 U.S. 469, 472, 477 (2005); Lee, *supra* note 214, at 594 ("The Supreme Court has elaborated . . . defining 'just compensation' as the taken property's 'fair market value,' and in turn defining 'fair market value' as the price that would be agreed to by a willing seller and a willing buyer." (citing *Olson v. United States*, 292 U.S. 246, 255 (1934); *United States v. Miller*, 317 U.S. 369, 374 (1943))); Lusvardi & Warren, *supra* note 214 (noting that because water is free, there is no real fair market value of water, and instead the cost of water comes from the cost to "capture, store, convey, and treat" water).

279. CAL. CONST. art. X, § 2; Saxer, *supra* note 220, at 53 ("While the majority of state legislatures and state and federal courts continue to talk about water rights in property terms, water rights are generally viewed not as actual property rights subject to a taking under the Fifth Amendment, but as usufructuary rights, or a license from the state or federal government that can be revoked and is governed by contract rights.").

280. Henderson, *supra* note 38, at 13 (noting that senior water rights are "generally superior" but do not guarantee water, and while unpopular, senior water rights can be curtailed to prevent unreasonable use of the state's water supplies).

281. Andy Alfaro, *Modesto-Area Irrigation Districts Sue State Over Water Restrictions*, *MODESTO BEE* (June 19, 2015, 7:26 PM), <http://www.modbee.com/news/article25043410.html> [<https://perma.cc/LW4H-HC29>] ("Modesto-area irrigation districts are suing the State Water Resources Control Board after the agency last week curtailed century-old water rights for some of them."); *Water Rights Process*, *supra* note 22 (explaining that pre-1914 appropriators established water rights in a "hierarchy of priorities," and in times of water shortage, junior water right holders must discontinue water use before senior water right holders).

282. CAL. WATER CODE § 1241 (West 2009) ("If the person entitled to the use of water fails to use beneficially all or any part of the water claimed by him or her . . . for a period of five years, that unused water may revert to the public and shall, if reverted, be regarded as unappropriated public water."); *Frequently Asked Questions*, *supra* note 224 (explaining that the State Water Board can modify permits and licenses to require more protective conditions, and "must provide the permit or license holder with notice and

which might be unpopular in localities, but enlarging state power is legal, especially through constitutional amendment.

One problem that may arise in using the public trust doctrine as a legal justification is the argument that the government has a public trust obligation to prevent the government from conveying a trust resource away from public ownership.²⁸³ The state can counter, of course, that the taking of water rights is for the public good and in the public's best interests, so it is therefore justified.²⁸⁴ As mentioned, senior water rights holders will oppose the proposal as well.²⁸⁵ Senior water rights holders hold their rights without contest and with the highest priority, and some litigation has already resulted where senior water rights holders claim that their water rights have been unjustly taken.²⁸⁶ However, the state's authority will legally expand under

opportunity for a hearing before making changes"); see *Water Rights Due Diligence*, SCHROEDER LAW OFFICES, P.C., <http://www.water-law.com/water-rights-articles/water-rights-due-diligence/#IV> [<https://perma.cc/H4NT-FE5W>] (last visited Nov. 11, 2016) ("Although the Code provides that a right ceases upon failure to apply water to a useful or beneficial purpose, it appears that the right is not officially forfeited, and the water considered available for appropriation, until the SWRCB issues a formal finding after notice to the permittee, and, if the permittee requests, a hearing." (citing WATER § 1241)); see also *Nevada Water Law 101*, NEVADA DEP'T OF CONSERVATION & NAT. RES., <http://dcnr.nv.gov/documents/documents/nevada-water-law-101/> [<https://perma.cc/95LN-A8UB>] (last visited Nov. 11, 2016) ("[Appropriated] water rights can be lost by cancellation, forfeiture, or abandonment.").

283. Ryan, *supra* note 145, at 571 ("Illinois was able to successfully reestablish public ownership of Chicago Harbor on the grounds that the public trust doctrine acted as a limit on the state's legal ability to casually convey trust lands."); see *Illinois Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 453 (1892) ("The control of the State for the purposes of the trust can never be lost . . .").

284. *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 728 (Cal. 1983) ("In [approving appropriations despite foreseeable harm to public trust uses], however, the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust, and to preserve, so far as consistent with the public interest, the uses protected by the trust." (citation omitted)); *O'Dea*, *supra* note 126, at 449 ("To establish a successful public trust defense, the court stated that the federal government must make an adequate showing that the interests protected by the public trust outweigh the public interest in the District's water project." (citing *Casitas Mun. Water Dist. v. United States*, 102 Fed. Cl. 443, 461 (2011))).

285. See *supra* Part III (c)(iii); Boxall, *supra* note 32 ("The lawsuits hit the courts within days of the state mailing notices to some Central Valley irrigation districts: They were to stop diverting from rivers and streams because there wasn't enough water to go around.").

286. Jacobs, *supra* note 165 ("Environmental lawyers and some academics disagree [with a specialist who asserts that senior water rights are vested property rights] . . . They argue California is enforcing its water rules to address the extreme shortage."); *Water Rights Process*, *supra* note 22 ("In times of shortage the most recent ('junior') right holder must be the first to discontinue such use; each right's priority dates to the time the permit application was filed with the State Board.").

the new proposed amended language to California's constitution, and this authority will enable the state to take a major action for the betterment of California's citizens and its water supply. The state's newly acquired authority will not be excessive, because it remains subject to the requirement that the water be put to reasonable and beneficial uses. Also, local water managers will be in direct contact with the state according to the language in the proposed alteration of the constitutional amendment, and thus will be able to object if the state is not distributing water in reasonable or beneficial ways.

There will also likely be economic drawbacks. Land development will probably need to be postponed or halted until California's severe water problems subside. This will likely limit the population influx and hurt the economy, because there will be less development.²⁸⁷ A decrease in development will decrease the number of available jobs in California.²⁸⁸ Also, there would be a smaller tax base to draw from as fewer people move to California in the hopes of obtaining work, which would likely lead to fewer services such as hospitals and schools.

This proposal is still justifiable despite the lack of certain groups' support, because it is necessary for California to better distribute and manage water resources. Further, new government jobs would be necessarily created in California state agencies, which would offset the jobs cut by the decrease in land development. Citizens would benefit overall, because with less water

287. Chris Kirkham, *California Economy is Projected to Grow Faster than U.S. Through 2020*, L.A. TIMES (Sept. 30, 2015, 5:00 AM), <http://www.latimes.com/business/la-fi-california-economy-growth-20150929-story.html> ("Job gains next year will continue to be driven by growth in construction, professional and technical services, and transportation and warehousing tied to international trade."); JunJie Wu, *Land Use Changes: Economic, Social, and Environmental Impacts*, CHOICES MAG., 4th Quarter 2008, at 6, http://www.choicesmagazine.org/UserFiles/file/article_49.pdf [<https://perma.cc/SJ7U-5J7V>] ("Land is one of three major factors of production in classical economics (along with labor and capital) and an essential input for housing and food production."); *id.* ("Land use change is necessary and essential for economic development and social progress.").

288. Wu, *supra* note 287 (noting that socioeconomic impacts of land-use changes "hinder the function of market forces"); *id.* ("Land use regulations that aim at curbing land development will raise housing prices, making housing less affordable to middle—and low—income households."); *id.* ("Land use regulation must strike a balance between private property rights and the public interest."); see Marc Lifsher, *California Tops Other States in Job Growth*, L.A. TIMES (Mar. 22, 2015, 9:04 PM), <http://www.latimes.com/business/la-fi-capitol-business-beat-20150323-story.html> [<https://perma.cc/PN3U-Q8AN>] ("Tourism, international trade, development of a regional tech sector and an uptick in construction contributed to the Southern California boomlet."); *New Americans in California*, AM. IMMIGRATION COUNCIL (Jan. 1, 2015), <https://www.americanimmigrationcouncil.org/research/new-americans-california> [<https://perma.cc/XDW7-SUR7>] ("Immigrants comprised 33.9% of the state's workforce in 2013 (or 6.5 million workers) according to the U.S. Census Bureau."); *id.* ("Immigrants comprise more than one third of the California labor force."); *id.* ("[Immigrants] figure prominently in key economic sectors such as agriculture, manufacturing and services.").

going to unsustainable land developments, water would be more available at a lower cost to both existing municipalities and agricultural areas.

V. CONCLUSION

Lawmakers and the courts alike must continue to take California's drought seriously. With amended language in California's Constitution enabling the state to revoke all private water rights—including but not limited to taking senior water rights, taking riparian rights, and revoking appropriators' permits—and create a new standard form general plan that localities must abide by with more stringent requirements, the state will gain direct control over water management and land development. While this proposal may be unique in the amount of authority delegated to the state legislature from localities and individuals, it could not come at a better time and should be embraced by Californians. With more funding for the State Water Board and the variety of legal justifications—the public trust doctrine, the theory of eminent domain, and the regulatory use argument—to endorse the state's actions, the state will be well equipped to finally tackle California's water shortage problem that manifests in impractical land development. The persistent drought requires drastic legal action to find a solution, because the drought has no clear end in sight.²⁸⁹ Only after water rights are taken back and land development is curtailed and managed can the state resume a more sustainable condition in a never-ending state of drought.

289. Kurtis Alexander, *How Much El Niño Rain Needed to End Drought? More Than 1 Answer*, S.F. CHRON. (Jan. 13, 2016), <http://www.sfchronicle.com/bayarea/article/How-much-El-Ni-o-rain-needed-to-end-drought-6754540.php> [<https://perma.cc/H7YX-R672>] (discussing that a board member from the Lompico water district, where strict water quotas remain due to the drought, stated it would take the district years to recover, even with future steady rain); *id.* (“California’s diverse water supplies, varying weather and fluctuating demand mean there won’t be a single point when the state’s water problems come to an end.”); Alan Neuhauser, *El Niño May Ease California Drought, but Not End It*, U.S. NEWS & WORLD REP. (Oct. 15, 2015, 1:50 PM), <http://www.usnews.com/news/articles/2015/10/15/el-nino-may-ease-california-drought-but-not-end-it-noaa-says> [<https://perma.cc/9MAL-6GBR>] (noting that Mike Halpert, deputy director of NOAA’s Climate Prediction Center, stated, “While it is good news that drought improvement is predicted for California, one season of above-average rain and snow is unlikely to remove four years of drought.”).

