

TIMOTHY WRIGHT*

Putting Some Over the Hill:¹ The Disparate Impact of Drought in California

Introduction.....	144
I. The California Drought’s Causes and Severity.....	146
II. California’s Drought and Rural Marginalized Communities	149
A. A Brief Racial History	149
B. The Struggle for Water	152
C. The Current Legal Framework for Water Access.....	153
D. Recommendations.....	155
III. California’s Drought and Urban Marginalized Communities	157
A. The Economic Divide and Struggle to Pay for Water	158
B. A Brief Racial History	159
C. The Legal Route to Tiered Pricing	161
D. Recommendations.....	165
IV. Potential Hurdles.....	166
Conclusion	167

“Some of us who live in arid parts of the world think about water with a reverence others might find excessive.”²

* J.D. Candidate, University of Oregon School of Law, 2017. He thanks Professors Erik Girvan and Adell Amos for their guidance on this Comment. He thanks his mother, sister, and partner for their continued support.

¹ JOAN DIDION, *THE WHITE ALBUM* (Simon & Schuster 1979), *reprinted in* WE TELL OURSELVES STORIES IN ORDER TO LIVE 179, 223 (Random House 2006) (“‘Putting some over the hill’ is what they say around the Project Operations Control Center [for the California State Water Project] when they want to indicate that they are pumping Aqueduct water from the floor of the San Joaquin Valley up and over the Tehachapi Mountains.”).

² *Id.* at 221.

INTRODUCTION

In the American West, the central fact of existence is the lack of water.³ California is embroiled in drought and the year 2014 was likely the state's single worst drought year in approximately 1200 years.⁴ As climate change continues to intensify,⁵ the rest of the nation and the world are watching the way California, the seventh largest economy in the world,⁶ responds to this water emergency. So far, the state has not responded well enough to offset the drought's disparate impact on minorities, the economically disadvantaged, and other marginalized and vulnerable populations.⁷

While the state has worked throughout its history to bring water to the people, doing so has accommodated, and arguably encouraged, substantial population growth in the state's desert regions.⁸ Without innovative policies and technologies, drought threatens to devastate California's agricultural sector, which uses approximately eighty percent of the state's water supply⁹ and produces more than half of American fruits and vegetables.¹⁰ Additionally, drought has had a harsh impact on rural communities in California's agriculturally dense Central Valley.¹¹

³ MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* 12 (rev. 1993).

⁴ DANIEL GRIFFIN & KEVIN J. ANCHUKAITIS, *HOW UNUSUAL IS THE 2012–2014 CALIFORNIA DROUGHT?* 9020 (Geophysical Res. Letters 2014).

⁵ Justin Gillis, *California Drought is Made Worse by Global Warming, Scientists Say*, N.Y. TIMES (Aug. 20, 2015), <http://www.nytimes.com/2015/08/21/science/climate-change-intensifies-california-drought-scientists-say.html>.

⁶ Michael B. Marois & Shin Pei, *Brown's California Overtakes Brazil with Companies Leading World*, BLOOMBERG (Jan. 15, 2015), <http://www.bloomberg.com/news/articles/2015-01-16/brown-s-california-overtakes-brazil-with-companies-leading-world>.

⁷ Adam Nagourney & Jack Healy, *Drought Frames Economic Divide of Californians*, N.Y. TIMES (Apr. 26, 2015), <http://www.nytimes.com/2015/04/17/us/drought-widens-economic-divide-for-californians.html>.

⁸ Adam Nagourney, *Brown's Arid California, Thanks Partly to His Father*, N.Y. TIMES (May 16, 2015), <http://www.nytimes.com/2015/05/17/us/jerry-browns-arid-california-thanks-partly-to-his-father.html>.

⁹ Jack Healy & Adam Nagourney, *Californians Who Conserved Wonder if State Can Overcome Those Who Didn't*, N.Y. TIMES (Apr. 2, 2015), <http://www.nytimes.com/2015/04/03/us/californians-concerned-that-efforts-to-serve-water-will-not-help-much.html>.

¹⁰ Charles Fishman, *Opinion, How California is Winning the Drought*, N.Y. TIMES (Aug. 14, 2015), <http://www.nytimes.com/2015/08/16/opinion/sunday/how-california-is-winning-the-drought.html>.

¹¹ Julia Lurie, *California's Drought is So Bad That Thousands are Living Without Running Water*, MOTHER JONES (July 31, 2015), <http://www.motherjones.com/environment/2015/07/drought-5000-californians-don't-have-running-water>.

California's water law scheme bears some of the burden for both enabling drought and the resulting disparate impact. "As many as two-thirds of California's local water departments use some sort of tiered pricing system,"¹² but in 2015, a California court placed limitations on that sort of pricing system,¹³ leaving local water departments to reevaluate their pricing structures.¹⁴ Additionally, in 2012, California passed the Human Right to Water Bill, which declared "that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."¹⁵ While the bill codifies the state's commitment to the people's right to water, the state has limited its ability to implement that right. Historically, California has failed to regulate groundwater, a source that normally provides a third of the state's water and was expected to provide as much as three quarters of California's water in 2015.¹⁶ As some communities have lost water access for essential needs,¹⁷ the state has responded with a \$1 billion drought relief package,¹⁸ but providing mostly immediate-needs provisions will not bring the systemic changes needed to create long-term water access for marginalized communities and does not address the issues the urban poor face.

Part I of this Comment explains the causes and severity of the California drought. Part II discusses the history of marginalized rural communities, including the drought's effects on those communities, and offers potential solutions in light of the exceptionally difficult realities they face. Part III addresses marginalized urban communities, the drought's impact on those communities, the tiered pricing route

¹² Nelson D. Schwartz, *Water Pricing in Two Thirsty Cities: In One, Guzzlers Pay More, and Use Less*, N.Y. TIMES (May 6, 2015), <http://www.nytimes.com/2015/05/07/business-environment/water-pricing-in-two-thirsty-cities.html>.

¹³ *Capistrano Taxpayers Assoc., Inc. v. City of San Juan Capistrano*, 186 Cal. Rptr. 3d 362 (2015).

¹⁴ Christopher Cadelago, *California Cities Fret Over Tiered Water Rates After Court Decision*, SACRAMENTO BEE (Apr. 21, 2015), <http://www.sacbee.com/news/state/California/water-and-drought/article19194072.html>.

¹⁵ Human Right to Water Bill, A.B. 685, 2011-12 R. S. (2012) (codified as CAL. WATER CODE § 106.3 (West 2012)).

¹⁶ Matt Richtel, *California Farmers Dig Deeper for Water, Sipping Their Neighbors Dry*, N.Y. TIMES (June 5, 2015), <http://www.nytimes.com/2015/06/07/business/energy-environment/california-farmers-dig-deeper-for-water-sipping-their-neighbors-dry.html>.

¹⁷ Lurie, *supra* note 11.

¹⁸ Office of Gov. Edmund G. Brown Jr., *Governor Brown Signs \$1 Billion Emergency Drought Package* (Mar. 27, 2014), <http://gov.ca.gov/news.php?id=18906>.

advanced in *Capistrano*, and how that might affect urban minorities. Part IV explores potential hurdles to water access and equity. Finally, the Comment concludes that California's current constitutional and statutory scheme requires the state to provide access to water for vulnerable populations and outlines a path for it to do so.

I

THE CALIFORNIA DROUGHT'S CAUSES AND SEVERITY

Drought occurs naturally in California. Even so, the current drought, which began in 2012, is exceptional because it has been exacerbated by some of the hottest temperatures on record—temperatures scientists have tied to climate change.¹⁹ The drought even continued through the 2015-2016 El Niño, which brought above-average rainfall.²⁰ In fact, the entire southwest and central plains regions of the United States are at high risk of a megadrought, or a drought lasting several decades, in the latter part of the twenty-first century.²¹

Climate change has most likely intensified the California drought by fifteen to twenty percent.²² The primary cause of climate change in the last half-century is greenhouse gas emissions.²³ Human activities, including the burning of fossil fuels for things like industrial agriculture and production, electricity, and transportation, contribute significantly to the release of greenhouse gases.²⁴ These gases trap energy in the Earth's atmosphere and cause it to warm.²⁵

California has warmed by more than two degrees Fahrenheit since 1895.²⁶ That phenomenon is significant because warmer air is capable of holding more water vapor, so, regardless of the amount of rain or snow in a given year, the atmosphere draws moisture from the soil

¹⁹ Gillis, *supra* note 5.

²⁰ Simon Wang, *NOAA: Exactly What El Nino Did To The California Drought*, SNOW BRAINS (Aug. 5, 2016), <http://snowbrains.com/noaa-exactly-what-el-nino-did-to-the-california-drought/>.

²¹ Benjamin I. Cook, Toby R. Ault & Jason E. Smerdon, *Unprecedented 21st Century Drought Risk in the American Southwest and Central Plains*, 1 *SCI. ADVANCE* 4 (2015), <http://advances.sciencemag.org/content/1/1/e1400082.full-text.pdf+html>.

²² Gillis, *supra* note 5.

²³ WENDY ORTIZ, *CTR. FOR AM. PROGRESS, LESSONS ON CLIMATE CHANGE AND POVERTY FROM THE CALIFORNIA DROUGHT* 4 (2015), <http://cdn.americanprogress.org/wp-content/uploads/2015/08/17102704/-CADrought-report.pdf>.

²⁴ *Id.*

²⁵ *Id.*

²⁶ Gillis, *supra* note 5.

more aggressively.²⁷ “The air over California,” for instance, “can absorb about 8.5 trillion more gallons of water in a typical year than would have been the case in the cooler atmosphere at the end of the nineteenth century.”²⁸

Climate change only exacerbates already severe drought conditions. However, a more discernable weather-related cause is partly responsible for those conditions: for several years, the western Pacific Ocean has experienced a persistent ridge of high pressure, which has kept storms away from California during the winter months, when the state tends to get most of its moisture.²⁹ This is a pattern that resembles past California droughts, but it is unclear whether the rise in the Earth’s temperature has contributed to the likelihood of the oceanic and atmospheric factors that produce the ridge.³⁰

California’s population growth has also contributed to its water issues. With an estimated population of over thirty-nine million people, California is by far the most populous state in the nation.³¹ A majority of that population—more than twenty-three million people—lives in southern California,³² while most of the state’s precipitation falls in northern California.³³ Additionally, by 2010, California became the most urban state in the nation, with ninety-five percent of its population living in urban areas, including seven of the ten most populous urban areas, with the Los Angeles-Long Beach-Anaheim area of southern California being the most densely populated urban area.³⁴

²⁷ *Id.*

²⁸ *Id.* (quoting Dr. A. Park Williams, climate scientist at the Lamont-Doherty Earth Observatory at Columbia University).

²⁹ *Id.*

³⁰ *Id.*

³¹ U.S. Census Bureau, U.S. and World Population Clock, <http://www.census.gov/popclock/>.

³² U.S. Census Bureau, State & County QuickFacts, http://www.quickfacts.census.gov/qfd/maps/california_map.html.

³³ ELLEN HANAK, JAY LUND, ARIEL DINAR, BRIAN GRAY, RICHARD HOWITT, JEFFREY MOUNT, PETER MOYLE & BARTON “BUZZ” THOMPSON, PUB. POL’Y INST. OF CAL., *MANAGING CALIFORNIA’S WATER: FROM CONFLICT TO RECONCILIATION* 3 (2011), http://ppic.org/content/pubs/report/R_211EHR.pdf.

³⁴ Press Release, U.S. Census Bureau, Growth in Urban Populations Outpaces Rest of Nation, Census Bureau Reports (Mar. 26, 2012), http://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html.

To support a population this large and this dense in a geographic region that “is a ‘semi-desert with a desert heart,’”³⁵ California uses two of the world’s great water development systems: the California State Water Project, operated by the California Department of Water Resources,³⁶ and the Central Valley Project, operated by the U.S. Bureau of Reclamation.³⁷ The California State Water Project primarily supplies urban areas, while the larger Central Valley Project primarily serves agriculture, though this is an oversimplification of the state’s water infrastructure.³⁸ Both were constructed in the 1960s,³⁹ and although 80 percent of the state’s population lived in southern California by that time, then-governor Pat Brown was accused of pushing through the California State Water Project to deliberately encourage southern California’s population growth.⁴⁰

If that was Brown’s intent, his decision would not be the only pro-growth water policy decision in the state’s history. California has never regulated groundwater and is the only state in the nation to have not done so.⁴¹ While the state did pass groundwater regulations in 2014,⁴² they are not expected to have any meaningful effect for at least twenty-five years.⁴³ Meanwhile, recent groundwater use underscores the need for significant regulation; groundwater resources accounted for seventy-five percent of the state’s water usage in 2015.⁴⁴ This is at a time when farmers are already fallowing much of their crops because their wells cannot replace the surface water they are normally allocated, resulting in farmers, especially those with lower-priority water rights, rushing to dig wells, which are draining the state’s underground aquifers and causing the ground to

³⁵ *Capistrano Taxpayers Assoc., Inc.*, 186 Cal. Rptr. 3d at 364 (quoting Walter Prescott Webb, *The American West, Perpetual Mirage*, HARPER’S MAG., May, 1957).

³⁶ CAL. DEP. OF WATER RESOURCES, CALIFORNIA STATE WATER PROJECT OVERVIEW, <http://www.water.ca.gov/swp/index.cfm> (last visited Dec. 2, 2015).

³⁷ CAL. DEP. OF WATER RESOURCES, CALIFORNIA STATE WATER PROJECT AND THE CENTRAL VALLEY PROJECT, <http://www.water.ca.gov/swp/cvp.cfm> (last visited Dec. 2, 2015).

³⁸ *Id.*

³⁹ CAL. DEP. OF WATER RESOURCES, CALIFORNIA STATE WATER PROJECT MILESTONES, <http://www.water.ca.gov/swp/milestones.cfm> (last visited Dec. 2, 2015).

⁴⁰ Nagourney, *supra* note 8.

⁴¹ Fishman, *supra* note 10.

⁴² CAL. WATER CODE § 10720 (Deering 2014).

⁴³ Richtel, *supra* note 16.

⁴⁴ *Id.*

sink in some places, as much as a foot per year, threatening the ability of farmers with high-priority water rights to exercise those rights.⁴⁵

Further, while the state has made some advances in water usage,⁴⁶ one can question other water policies California has implemented, not implemented, or been slow to implement. The low cost of water for agriculture has allowed farmers to move to more profitable crops, such as almonds, which require a higher volume of water and cannot be fallowed.⁴⁷ Communities, including Los Angeles, have failed to capture the rain that does fall.⁴⁸ About a third of water agencies in the state do not use any kind of tiered pricing system.⁴⁹ As of 2013, more than two hundred and thirty-five thousand homes and businesses were without meters.⁵⁰ Unfortunately, these policies disproportionately affect marginalized communities, both rural and urban.

II

CALIFORNIA'S DROUGHT AND RURAL MARGINALIZED COMMUNITIES

A. A Brief Racial History

The water access struggles for marginalized rural communities are widespread. These are largely farm labor communities whose residents, between 2009 and 2011, were 92% Latino and 77% undocumented.⁵¹ With an average annual income of \$14,000, 73% of these workers earn less than 200% of the poverty line.⁵² Further, 78% lack a high school diploma or its equivalent and 63% lack health insurance coverage.⁵³ These conditions place farmworkers in a

⁴⁵ *Id.*

⁴⁶ Fishman, *supra* note 10.

⁴⁷ Charles Fishman, Opinion, *Is California Really Winning the Drought?: Reader Q. & A.*, N.Y. TIMES (Aug. 19, 2015), http://www.nytimes.com/2015/08/18/opinion/is-california-really-winning-the-drought-reader-q-a.html?_r=0.

⁴⁸ Fishman, *supra* note 10.

⁴⁹ Adam Nagourney, *California Court Rules Water Pricing Plan Violates Law*, N.Y. TIMES (Apr. 20, 2015), <http://www.nytimes.com/2015/04/21/us/california-court-rules-water-pricing-plan-violates-law.html>.

⁵⁰ Scott Smith, *California Homes Lack Water Meters During Drought*, WASH. TIMES (Sept. 6, 2014), <http://www.washingtontimes.com/news/2014/sep/6/in-california-some-homes-lack-water-meters/?page=all>.

⁵¹ CALIFORNIA RESEARCH BUREAU, S-13-017, FARMWORKERS IN CALIFORNIA: A BRIEF INTRODUCTION 1 (2013).

⁵² *Id.* at 1–2.

⁵³ *Id.*

uniquely vulnerable position in the best of times, and that risk is exacerbated in a time of drought.

The demographics of these communities are not new to the state. The history of California farm labor communities follows a familiar path of migrant waves of various national origins seeking opportunity by coming to America and filling a need for labor, then being pushed out when their presence was seen as less necessary.⁵⁴ The nineteenth century saw Chinese immigrant labor come to California, followed by The Chinese Exclusion Act.⁵⁵ Japanese immigrants came and were met with the Gentlemen's Agreement.⁵⁶ During the Great Depression, Filipino and Mexican workers faced repatriation.⁵⁷ World War II increased the need for immigrant labor to fill Californian farms, and the United States reinstated its Bracero program, which it had used in World War I, to provide an exception in immigration laws for people born in "North America, South America, and Central America, and the islands adjacent thereto, desiring to perform agricultural labor in the United States."⁵⁸ The wartime program concluded at the end of 1947, though the Braceros program lasted until 1964.⁵⁹ In more recent times, politicians have used, and do use, nativist rhetoric to scapegoat Latino immigrants who work California's farms.⁶⁰

The living standard for California farm labor communities has also stayed below the American living standard over time, even while California farming developed in some ways better than the rest of the nation. For centuries, California farms have relied more on labor than farms in the eastern United States, but California never instituted slavery or widely practiced share-cropping.⁶¹ Further, even as Californian farms have not often offered an agricultural ladder on

⁵⁴ Alan L. Olmstead & Paul W. Rhode, *The Evolution of California Agriculture 1850–2000*, in CALIFORNIA AGRICULTURE: DIMENSIONS AND ISSUES 17–18 (Jerry Siebert ed., 2003).

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ See PHILIP MARTIN, PROMISE UNFULFILLED: UNIONS, IMMIGRATION, AND FARM WORKERS (Cornell Univ. Press 2003), reprinted in *Braceros: History, Compensation*, 12 RURAL MIGRATION NEWS 2 (Apr. 2006), <http://www.migration.ucdavis.edu/rmn/more/php?id=1112>.

⁵⁹ *Id.*

⁶⁰ Michelle Ye Hee Lee, *Donald Trump's False Comments Connecting Mexican Immigrants and Crime*, WASH. POST (July 8, 2015), <http://www.washingtonpost.com/news/fact-checker/wp/2015/07/08/donald-trumps-false-comments-connecting-mexican-immigrants-and-crime/>.

⁶¹ Olmstead, *supra* note 54, at 19.

which immigrant laborers could climb to economic prosperity or farm ownership, these laborers, or at least their descendants, have found it possible to move into other sectors of the economy.⁶²

However, the living conditions of these workers have never matched those of other Americans. In the nineteenth and early twentieth century, large farms provided temporary dormitory-style camps for laborers.⁶³ Other farms offered workers shelter in the landowner's house or blankets to sleep in the hay.⁶⁴ Starting in 1913, the State Housing Division's inspectors had the power to inspect labor camps and make arrests for violations, and other local officials could abate camps, but these powers were rarely carried out because of the political influence of agriculture and because if the camps were abated the workers would not have a better place to go.⁶⁵ During the Depression, federal agencies provided both temporary and permanent housing to address squatting.⁶⁶ While these camps were erected in several states, opposition to the camps appears to have come only from large Californian employers.⁶⁷ Their opposition was directed at public control of housing for migrants in the place of employer control.⁶⁸ Though the United States Senate's Civil Liberties Committee observed the importance of these camps and the risks posed by employer control in a report on California's industrialized agriculture, the program was replaced by private operation in 1947.⁶⁹

Then came the rise of "rural slums." In the 1950s, as migrant workers had begun to search for permanent homes, a housing scarcity, which was partly a result of policy driven by fears of unionization, kept these workers from planting roots.⁷⁰ Landowners and speculators in the San Joaquin Valley sold workers cheap, unproductive land, on which workers often built shoddy homes.⁷¹ These communities

⁶² *Id.* at 19–20.

⁶³ Sarah M. Ramirez & Don Villarejo, *Poverty, Housing, and the Rural Slum: Policies and the Production of Inequities, Past and Present*, 102 AM. J. PUB. HEALTH 1655 (2012), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3482029/>.

⁶⁴ Paul S. Taylor, *Perspective on Housing Migratory Agricultural Laborers*, 27 LAND ECON. 193, 195 (1951).

⁶⁵ *Id.* at 197–98.

⁶⁶ *Id.* at 198–99.

⁶⁷ *Id.* at 199.

⁶⁸ *Id.*

⁶⁹ *Id.* at 199–200.

⁷⁰ Ramirez & Villarejo, *supra* note 63.

⁷¹ *Id.*

received the ire of whites and the media for their lack of sewage, running water, or other community mainstays, but for people of color who were denied housing in other cities they offered affordable home ownership and proximity to work.⁷² These communities continue today and still face many of the same issues.

B. The Struggle for Water

By 2014, farmers across the state had fallowed over four hundred thousand acres of farmland.⁷³ California agriculture lost \$1.5 billion in revenue that year, resulting in a loss of \$2.2 billion.⁷⁴ These losses cost farmworkers 17,100 seasonal and part-time jobs,⁷⁵ placing workers in an even more precarious position. Those who have kept work are making less, as lower water usage produces smaller crops and farmers increasingly pay workers based on their production instead of hours worked.⁷⁶ Some workers are leaving, opting to either return home or move north to Oregon or Washington.⁷⁷ These communities have suffered a decrease in tax revenues due to losses in both population and earnings.⁷⁸

One such community that has gained a unique notoriety recently is East Porterville, located in the Central Valley's Tulare County. East Porterville has never had a public water system, which was not a problem because its residents had plenty of water access through the use of shallow wells until the current drought.⁷⁹ As the community's farmers lost access to surface water and began to rely increasingly on groundwater, farmworkers began to report dry wells.⁸⁰ As of August 2016, there were 1612 reported domestic well failures in Tulare

⁷² *Id.*

⁷³ RICHARD HOWITT, JOSUÉ MEDELLÍN-AZUARA, DUNCAN MACEWAN, JAY LUND & DANIEL SUMNER, CTR. FOR WATERSHED SCIENCES, ECONOMIC ANALYSIS OF THE 2014 DROUGHT FOR CALIFORNIA AGRICULTURE 15 (2014), http://watershed.ucdavis.edu/files/biblio/DroughtReport_23July2014_0.pdf.

⁷⁴ *Id.* at ii.

⁷⁵ *Id.*

⁷⁶ Julia Wong, *California Drought Leaves Farmworkers Hung Out to Dry (UPDATED)*, IN THESE TIMES (Aug. 8, 2014), http://www.inthesetimes.com/working/entry/17060/California_drought_hangs_farmworkers_out_to_dry.

⁷⁷ *Id.*

⁷⁸ Ortiz, *supra* note 23, at 15.

⁷⁹ Lurie, *supra* note 11.

⁸⁰ *Id.*

County.⁸¹ While farmers are able to pay to dig deeper wells,⁸² the \$10,000 to \$30,000 cost of digging a new well is prohibitive for most residents.⁸³ Residents of East Porterville resort to using showers, toilets, and sinks outside of a local church⁸⁴ because they have not had running water in their homes for up to three years.⁸⁵

Early assistance efforts by the county have included a free bottled water delivery service, which allocates to each resident half a gallon of drinking water per day, three large tanks of non-potable water that residents can use to fill storage containers, and installation of storage tanks at homes with dry wells.⁸⁶ Beyond falling short of the in-home water services Americans often take for granted, these county solutions have various issues. For one, the storage tank installation program requires home ownership, while many farmworkers are renters; many of those most in need are not able to access the program.⁸⁷ Further, while the programs are available to residents regardless of citizenship status, many community members fear interaction with the government.⁸⁸ Indeed, when water was first set up at the church, many thought they might be an “immigration enforcement trap,” and some parents whose homes are without running water have stopped sending their children to school out of fear of child welfare services.⁸⁹

C. The Current Legal Framework for Water Access

State and federal laws impact these communities with mixed results. California’s Human Right to Water Bill makes “every human being[’s] . . . right to safe, clean, affordable, and accessible water adequate for human consumption, cooking and sanitary purposes” state policy, and requires “[a]ll relevant state agencies,” to “consider

⁸¹ Tulare County, Drought Effects Status Update: Week of August 29, 2016, <http://www.tularecounty.ca.gov/emergencies/index.cfm/drought/drought-effects-status-updates/2016/august/week-of-august-29-2016/>.

⁸² Richtel, *supra* note 16.

⁸³ Lurie, *supra* note 11.

⁸⁴ *Id.*

⁸⁵ Matt Stevens, *After years without water, taps are turned on in East Porterville*, L.A. TIMES (Aug. 19, 2016), <http://www.latimes.com/local/lanow/la-me-ln-east-porterville-20160819-snap-story.html>.

⁸⁶ Lurie, *supra* note 11.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

this state policy when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water described in this section.”⁹⁰ While courts have not determined when an agency has met its obligation to consider those factors, and Subsections (c) through (e) pull back on the state’s sweeping commitment,⁹¹ this is a strong statutory foundation for ensuring meaningful access to useful water.

Additionally, the federal Safe Drinking Water Act⁹² provides statutory authority for the Drinking Water State Revolving Fund,⁹³ which is a “federal-state partnership to help ensure safe drinking water.”⁹⁴ While the California Department of Health Services initially implemented the program in the state,⁹⁵ it was later transferred to the State Department of Public Health before being moved to the State Water Board.⁹⁶ The program’s purpose is “to assist public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with SDWA requirements.”⁹⁷ It does not offer assistance to the up to two million Californians served by the state’s 250,000 to 600,000 private wells⁹⁸ because its funds are limited to public water systems, which by rule are systems making at least fifteen service connections or regularly serving twenty-five or more year-round residents.⁹⁹ While it is not likely to assist the most isolated people, the program can potentially assist communities like East Porterville in developing a system to provide sustainable water access.

Further, on March 27, 2015, California’s governor, Jerry Brown, signed a \$1 billion drought relief package.¹⁰⁰ The majority of the funding is for infrastructure that will take years to complete, such as

⁹⁰ Section 106.3 of the California Water Code.

⁹¹ *See id.*

⁹² 42 U.S.C.A. § 300f (West 2012).

⁹³ State Revolving Loan Funds, 42 U.S.C.A. § 300j-12 (West 2012).

⁹⁴ U. S. ENVTL. PROT. AGENCY, DRINKING WATER STATE REVOLVING FUND (DWSRF), <http://www2.epa.gov/drinkingwatersrf>.

⁹⁵ Codified as CAL. HEALTH & SAFETY CODE § 116760 (West 2012).

⁹⁶ CAL. ENVTL. PROT. AGENCY: STATE WATER RESOURCES CONTROL BOARD, POLICY FOR IMPLEMENTING THE DRINKING WATER STATE REVOLVING FUND (2014).

⁹⁷ *Id.*

⁹⁸ Ortiz, *supra* note 23, at 16 (*citing* THE CAL. STATE WATER RESOURCES CONTROL BOARD GROUNDWATER AMBIENT MONITORING AND ASSESSMENT (GAMA) PROGRAM, A GUIDE FOR PRIVATE DOMESTIC WELL OWNERS, 6 (2015)).

⁹⁹ 42 U.S.C.A. § 300f(15) (West 2012).

¹⁰⁰ Office of Gov. Edmund G. Brown Jr., *supra* note 18.

desalination and water recycling,¹⁰¹ but the package also includes funding for more immediate needs, such as emergency food and drinking water aid.¹⁰² This aid is aimed at providing water access to those most vulnerable to the drought's effects and allocates \$5 million to "local assistance for emergency drinking water support for small communities, including addressing private well shortages."¹⁰³ However, there is no other indication that the package lifts the fifteen-service-connection minimum, and a list of entities eligible to apply includes public agencies along with community water systems, not-for-profit organizations, and tribal governments, all of whom must serve disadvantaged communities.¹⁰⁴ Thus far, the state has not found a way to match its policies to the unique geographic isolation of many of its most vulnerable people.

D. Recommendations

Policymakers at the local, state, and federal levels all have a part to play in developing the infrastructure to provide long-term water access to low-income rural residents. Four policy shifts, when combined, would help ensure rural Californians enjoy their fundamental right to water, both short- and long-term: (1) lifting the fifteen-service-connection minimum for funding eligibility; (2) expanding program coverage to renters; (3) offering incentives for developers and residents, especially renters, in small communities to build and move into multifamily buildings; and (4) encouraging closer cooperation between state agencies and local agencies and organizations.

Lifting or providing an exception to the fifteen-service-connection or twenty-five-person minimum would expand access to funding. As previously discussed, this limitation closes funding opportunities for the two million California residents who rely on wells at a time when farming's reliance on groundwater has increased and climate change is expected to continue exacerbating weather cycles, leaving

¹⁰¹ Chris Megerian & Melanie Mason, *\$1 Billion in California Drought Relief May Just Be the Beginning*, L.A. TIMES (Dec. 4, 2015), <http://www.latimes.com/local/political/la-me-pc-brown-emergency-drought-20150318-story.html>.

¹⁰² Office of Gov. Edmund G. Brown Jr., *supra* note 18.

¹⁰³ A.B. 91, 2015 Leg. Reg. Sess. (Cal. 2015) (enacted).

¹⁰⁴ CAL. WATER BOARDS, NOTICE OF FUNDING AVAILABILITY FOR INTERIM EMERGENCY DRINKING WATER, http://www.waterboards.ca.gov/water_issues/programs/grants_loans/caa/dw_droughtfund/docs/ab91_funding_factsheet.pdf.

traditionally private well-users in a precarious position. If the Environmental Protection Agency provided an exception to this rule for severely disadvantaged and isolated groups, then programs like the one Governor Brown signed into law in 2015¹⁰⁵ could address private well shortages more directly.

Additionally, California should expand its assistance programs to renters. The storage tank installation program in Tulare County, for example, which is not open to renters, is a temporary solution to water accessibility. While for certain programs it might make sense to limit access to homeowners, those providing temporary solutions, at least, should be available to people in a temporary living situation. Human beings deserve access to potable water regardless of whether they can afford to purchase a home.

Together with—and as an alternative to—expanding programs access to renters, California should allocate funds to subsidize building and renting multifamily housing units in rural communities. Funding could go towards putting these units onto a water system, the cost of building, the cost of renters moving and their new rent, and towards installing efficient water-using fixtures and piping and storage systems, including gray water piping and storage. While much of this could be allocated to renters' homes if programs were extended to renters, these are permanent solutions, and multifamily housing units would be a far more efficient approach to creating a community water infrastructure through sprawling rural communities. And while the state should move diligently to resolve water access issues, creating an infrastructure to link homes with a municipal water supply is already a slow process.¹⁰⁶

The appropriate combination of these solutions, along with means of assistance not listed here, will depend on circumstances unique to each community. Consequently, it is essential to the success of any set of initiatives to have close cooperation between state agencies and local agencies and organizations. The presence of locals will best ensure that their needs and interests are heard, understood, and met. It is the responsibility of state officials to be receptive to, and respectful of, local community voices as they prioritize the allocation of resources across the state. As an example of the need for this sort of cooperation, California officials in 2015 decided to use a new Porterville water well as a filling station for the trucks that supply

¹⁰⁵ Office of Gov. Edmund G. Brown Jr., *supra* note 18.

¹⁰⁶ Lurie, *supra* note 11.

water for the drought relief tank program's at-home tanks in the unincorporated East Porterville.¹⁰⁷ However, local officials said the site was never intended for that use and that because of its limited road access, that use would cause accidents.¹⁰⁸ Based on the state's announcement, the city ended its contract with the county to supply water for the tank program and stalled plans to connect homes in East Porterville to the city's water system.¹⁰⁹ This system did not go online until August of 2016, and even then it reached only a portion of residents.¹¹⁰

California has a long history of mistreating and ignoring the needs of the people who work its farms. Too much of its response today looks like its past. If California is going to meet its obligation to ensure meaningful access to good water for everyone, then policymakers should consider how to best utilize these tools in the widely varied communities across the state.

III CALIFORNIA'S DROUGHT AND URBAN MARGINALIZED COMMUNITIES

On April 1, 2015, Governor Brown issued an executive order directing the State Water Resources Control Board to implement a twenty-five percent mandatory reduction in potable urban water.¹¹¹ Under this initiative, about 400 local water agencies must reduce water usage anywhere from four percent to thirty-six percent.¹¹² Local water agencies have discretion in how they make those savings happen.¹¹³ Up to two-thirds of the local water agencies use some version of a tiered pricing system, in which users who consume more are charged more per unit, as one of their means of saving.¹¹⁴ Since

¹⁰⁷ *Talks Continue on New City Well Plan*, THE PORTERVILLE REPORTER (Dec. 1, 2015), http://www.recorderonline.com/news/talks-continue-on-new-city-well-plan/article_4d3a6222-97f2-11e5-bb03-d3d847b2fdb1.html.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ Stevens, *supra* note 85.

¹¹¹ Exec. Order B-29-25 (Apr. 1, 2015).

¹¹² Nagourney, *supra* note 7.

¹¹³ Ian Lovett, *In California, Stingy Water Users Are Fined in Drought, While the Rich Soak*, N.Y. TIMES (Nov. 21, 2015), <http://www.nytimes.com/2015/11/22/us/stingy-water-users-in-fined-in-drought-while-the-rich-soak.html>.

¹¹⁴ Schwartz, *supra* note 12.

the *Capistrano* decision, which struck down one such pricing system, local agencies have been forced to reevaluate their rate-setting structures.¹¹⁵ However, without a steep tiered pricing structure in place, the burden of the drought is falling disproportionately on lower-income minorities. The *Capistrano* court left room for steep tiered pricing, though. A steep tiered pricing based on the true costs of users is the primary tool at the disposal of local water agencies that, when combined with other programs, could best ensure that the costs of the drought are distributed most equitably.

A. The Economic Divide and Struggle to Pay for Water

Low-income minorities feel the effects of water usage reduction plans more heavily, both within water districts and inter-district. Within water districts, the conservation of less affluent residents subsidizes the cost of heavier users. For instance, in June of 2015, the state ordered Los Angeles to cut its water use by sixteen percent.¹¹⁶ The district's top ten residential users combined used more than 80 million gallons of water from April 1, 2014, through April 1, 2015, with the top user alone using enough for approximately ninety average families, yet none of these users were fined.¹¹⁷ This is because less affluent residents conserved well enough to ensure that the city easily met its required reduction.¹¹⁸

The state determined how much water each district would have to cut based on prior average use.¹¹⁹ While this process requires districts with the highest usage to cut back the most, it does not account for how much water residents in each district are using for what purpose, and how small cuts for some can require drastic changes. For instance, the wealthy unincorporated Cowan Heights was ordered to reduce usage by thirty-six percent while the city of Compton faced an eight percent reduction.¹²⁰ Both communities are within the urban area encompassing Los Angeles, Long Beach, and Anaheim. The median household income in Cowan Heights is \$122,662, with less than three percent of residents living below the poverty line, while

¹¹⁵ Cadelago, *supra* note 14.

¹¹⁶ Thomas Suh Lauder, *Look Up Drought Report Card for California's Urban Water Districts*, L.A. TIMES, <http://graphics.latimes.com/drought-report-card/?id=1473> (last updated May 6, 2016).

¹¹⁷ Lovett, *supra* note 113.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ Nagourney, *supra* note 7.

Compton has a median household income of \$42,953, with twenty-six percent of residents living below the poverty line.¹²¹ Eighty-four percent of Cowan Heights residents are white, while sixty-seven percent of Compton residents are Hispanic.¹²² More directly, daily water consumption per person in Cowan Heights during the hot summer months of 2014 was 572.4 gallons, while in Compton during the same time, the daily water consumption per person was 63.6 gallons.¹²³ Cowan Heights residents have put up lawn signs saying, “Stop the Water Ripoff!”¹²⁴ Some have also made plans to convert their landscaping to be less water-dependent.¹²⁵ Alternatively, residents of Compton are reporting having children skip baths, using paper plates to avoid washing dishes, and letting their gardens brown and die.¹²⁶ Cowan Heights residents managed to decrease water usage a cumulative thirty-nine percent between June and December of 2015,¹²⁷ and Compton residents reduced usage by a cumulative fourteen percent over that same time.¹²⁸ These disparities are widespread.

B. A Brief Racial History

The demographic disparity between these two communities, which are located in the same urban area, raises questions about how and why they have developed so differently. Twenty-six of Los Angeles’s forty-four original settlers were black or “mulatto.”¹²⁹ By 1910, Los Angeles had the highest percentage of black home ownership in the nation.¹³⁰ Racial restrictions in housing began to push black residents

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ Thomas Suh Lauder, *Look Up Drought Report Card for California’s Urban Water Districts*, L.A. TIMES, <http://graphics.latimes.com/drought-report-card/?id=785#districtResultsMain> (last updated May 6, 2016).

¹²⁸ Thomas Suh Lauder, *Look Up Drought Report Card for California’s Urban Water Districts*, L.A. TIMES, <http://graphics.latimes.com/drought-report-card/?id=607#districtResultsMain> (last updated May 6, 2016).

¹²⁹ MARGE NICHOLS, UNITED WAY OF GREATER LOS ANGELES, *THE STATE OF BLACK LOS ANGELES* 10 (2005).

¹³⁰ *Id.* at 12.

into south central Los Angeles in the 1920s.¹³¹ This racial clustering was exacerbated with the forming of the Homeowners' Loan Corporation (HOLC) in 1933, which was designed to create better loan terms for homeowners.¹³² Through local real estate agents across the country, HOLC created color-coded maps to help lenders navigate loan risk.¹³³ These colors were determined in part by the racial makeup of a neighborhood; the presence of a minority group typically resulted in a red designation, which signaled to lenders to not invest.¹³⁴ This practice, known as redlining, depressed prices in areas where minorities lived and made it more difficult for these people to secure loans or create personal wealth.¹³⁵ Relatedly, in a case from the West Adams Heights area of Los Angeles, a court held that restrictive housing covenants, which were private agreements among neighbors to exclude minorities, violated the Constitution.¹³⁶ The United States Supreme Court deemed this practice unconstitutional soon after.¹³⁷ The practice of redlining itself was not officially prohibited until the Fair Housing Act in the late 1960s.¹³⁸

Unfortunately, those decisions did not fully resolve problems of racial integration; the racial groupings of redlining have proved lasting, and subtle forms of the practice persist.¹³⁹ In Compton, black families began moving into the city in the 1950s, and by the 1960s Compton elected its first black mayor.¹⁴⁰ By 1970, Compton's population was seventy-one percent black, and that number had risen to seventy-five percent by 1980.¹⁴¹ The black population of Compton, as well as that of the rest of the urban area, has seen a steep drop since

¹³¹ *Id.*

¹³² Chris Nichols, *DispL.A. Case #29: Redlining Maps*, L.A. MAG. (Jan. 12, 2013), <http://www.lamag.com/askchris/displa-case-29-redlining-maps/>.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *California: Victory on Sugar Hill*, TIME MAG. (Dec. 17, 1945), <http://www.content.time.com/time/subscriber/article/0,33009,776487,00.html>.

¹³⁷ *Shelley v. Kraemer*, 334 U.S. 1, 20 (1948).

¹³⁸ 42 U.S.C.A. § 3605 (West 2012).

¹³⁹ Matthew Green, *How Redlining Maps Encouraged Segregation in California's Cities*, KQED NEWS (July 13, 2015), <http://ww2.kqed.org/lowdown/2015/07/13/redlining/>.

¹⁴⁰ CITY OF COMPTON, <http://www.comptoncity.org/visitors/history.asp>.

¹⁴¹ *Compton History*, MOOSE ROOTS, <http://places.mooseroots.com/1/314864/Compton-CA> (last visited Mar. 31, 2016, 9:24 PM).

the 1980s and has largely been replaced by the city's Hispanic population.¹⁴²

The history of private and public policies of segregation outlined here are similar to those seen in California's rural communities, and they explain much of the relationship between race and prosperity found in California and across the country. The prosperity divide resulting from racial grouping housing policies is apparent in income, health care, education, and crime.¹⁴³ These disparities, which align with the disparities resulting from the drought, highlight the necessity for pricing structures—like tiered pricing, to be specific—that account for the necessity of water as a fundamental resource for basic in-home functions.

C. The Legal Route to Tiered Pricing

The California Court of Appeal in *Capistrano* did not shut the door on tiered pricing structures in California, but merely clarified how water agencies cannot use them. That court held that the trial court had erred in holding that water agencies could not pass on to customers the capital costs of improvement, such as for the new water recycling plant the water agency was funding, but the court affirmed the trial court's ruling that public agencies are required to determine the actual costs of providing water for various usage levels.¹⁴⁴

The subject of that case, the City of San Juan Capistrano, or "City Water," adopted a water rate structure in which it determined its total costs, identified components of its costs, and identified classes of customers, differentiating between large and regular lot residential customers, construction customers, and agricultural customers.¹⁴⁵ Then, for each class, City Water calculated four varying budgets based on water usage patterns.¹⁴⁶ The budgets were dubbed "low," "reasonable," "excessive," and "very excessive," and were then used as the basis for pricing tiers.¹⁴⁷ Tier 1 for residential customers was

¹⁴² Douglas S. Massey, *Residential Segregation and neighborhood Conditions in U.S. Metropolitan Areas*, AMERICA BECOMING: RACIAL TRENDS AND THEIR CONSEQUENCES, VOLUME 1, 401 (2001).

¹⁴³ See Nichols, *supra* note 129.

¹⁴⁴ *Capistrano Taxpayers Assoc., Inc. v. City of San Juan Capistrano*, 186 Cal. Rptr. 3d 362, 364–65 (2015).

¹⁴⁵ *Id.* at 365–66.

¹⁴⁶ *Id.* at 366.

¹⁴⁷ *Id.*

based on World Health Organization guidelines for the amount of water necessary for survival, Tier 2 included a reasonable outdoor allocation, and the remaining tiers went beyond these allocations.¹⁴⁸ While the plan was made to be revenue neutral, City Water did not make any attempt to calculate the costs of providing water to each customer tier, but rather acknowledged that it was using the top tier revenues to subsidize the bottom tier rates.¹⁴⁹

The trial court ordered that City Water had violated Article XIII D, Section 6, Subdivision (b)(4) of the California Constitution by imposing costs for the recycling plant on residential customers, both because residential customers would not typically be receiving water from the plant, and because the plant was not yet online.¹⁵⁰

That article of the Constitution reads:

No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.¹⁵¹

The *Capistrano* court read the Constitution differently, holding that recycled water is not a fundamentally different service than potable water because providing non-potable water for some customers makes potable water available for others.¹⁵² Additionally, that court determined that water agencies have five years to develop an expensive means of production and pass that cost on to the customers whose excessive water usage makes that production necessary.¹⁵³ This holding forced the court to remand the case to the trial level to determine whether costs for the new plant had been wrongly allocated to low-usage customers who could not possibly create the need for the new production.¹⁵⁴ In *Capistrano*, the court is not concerned with the overcharging of high-consumption customers subsidizing a new plant for a different class of water user, but with the overcharging of low-usage customers for a plant made necessary by larger customers.

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 369.

¹⁵¹ CAL. CONST. art. XIII D § 6, subdiv. (b)(4).

¹⁵² *Capistrano*, 186 Cal. Rptr. 3d at 369.

¹⁵³ *Id.* at 370.

¹⁵⁴ *Id.* at 371.

The trial court also held that City Water's tiered pricing system violated Article XIII D, Section 6, Subdivision (b)(3) of the California Constitution,¹⁵⁵ which says, "[t]he amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel."¹⁵⁶ The appellate court noted that Subdivision (b)(5) of the same section places a procedural limitation on the court's analysis:¹⁵⁷ "[i]n any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article."¹⁵⁸ Where courts normally give deference to agency policies in challenges to government action, this shifts the burden onto the agency to show substantial evidence that can pass an independent review.¹⁵⁹ City Water's tiers increased charges with a "mathematical tidiness," and it admitted at oral argument to not having tried to correlate usage cost to supply cost for each tier.¹⁶⁰ The court determined that "[t]o comply with the Constitution, City Water had to do more than merely balance its total costs of service with its total revenues," it "also had to correlate its tiered prices with the actual cost of providing water at those tiered levels."¹⁶¹ The court stressed that Subdivision (b)(3) does not stop water agencies from passing on the higher costs of expensive water to those using greater amounts of water, but simply requires agencies to figure out the true cost as opposed to drawing arbitrary lines based on budget projections.¹⁶²

One of City Water's arguments in *Capistrano* was that Subdivision (b)(3) must be balanced against Article X, Section 2 of the California Constitution.¹⁶³¹⁶⁴ The court rejected this argument, saying that the Constitutional provision does not require rates to exceed the true supply cost.¹⁶⁵ While the court said it believes that provision and Article XIII D, Section 6, Subdivision (b)(3) actually "work together

¹⁵⁵ *Id.* at 365.

¹⁵⁶ CAL. CONST. art. 13D, § 6, subdiv. (b)(3).

¹⁵⁷ *Capistrano*, 186 Cal. Rptr. 3d at 371.

¹⁵⁸ Cal. Const. art. 13D, § 6, subdiv. (6)(5).

¹⁵⁹ *Capistrano*, 186 Cal. Rptr. 3d at 373 (citing Silicon Valley Taxpayers' Assn., Inc. v. Santa Clara County Open Space Authority, 79 Cal. Rptr. 3d 312 (2008)).

¹⁶⁰ *Id.* at 371–72.

¹⁶¹ *Id.* at 373.

¹⁶² *Id.* at 376.

¹⁶³ CAL. CONST. art. 10, § 2.

¹⁶⁴ *Capistrano*, 186 Cal. Rptr. 3d at 374.

¹⁶⁵ *Id.* at 376.

to promote increased supplies of water,” if there were an irreconcilable conflict, it “might have to read Article XIII D, Section 6, Subdivision (b)(3) to have carved out an exception to Article X, Section 2,” because the latter is more recent and more specific.¹⁶⁶

Another important aspect of *Capistrano* is that the court rejected City Water’s argument that the higher tiers are justifiable as penalties outside the purview of Subdivision (b)(3).¹⁶⁷ The court gave a sharp rebuttal, saying, “designating something a ‘conservation rate’ is no more determinative than calling it an ‘apple pie’ or ‘motherhood’ rate.”¹⁶⁸ The court’s reasoning was that the penalty rate theory is inconsistent with Subdivision (b)(3) because it would create a loophole in which an agency could simply establish a low base for use of a service, then declare any usage above that rate illegal and make the penalty for such usage incrementally increased rates, which would “make a mockery of the Constitution.”¹⁶⁹

In its conclusion, the court attempted to provide water agencies with options for advancing the potentially increasing costs of water to the users who are most responsible for the increases.¹⁷⁰ The court lays out two routes: one outside the purview of Subdivision (b)(3) and one within that purview.¹⁷¹ Water rates exceeding the cost of service are effectively a tax, which the court said is constitutionally permissible if a water agency or local government receives approval from the relevant electorate.¹⁷² Without going to the voters, local governments or water agencies can impose tiers so long as they anchor the rates to cost of service.¹⁷³ Neither the remand to the trial court to determine whether low-usage customers were being illegally put-upon by paying more than their share for new water sources for which they were not responsible nor the holding that City Water’s style of tiered pricing violated Subdivision (b)(3) of the California Constitution suggest that the courts are or will be a true hurdle to state and local conservation agencies. If anything, the *Capistrano* decision showed willingness on

¹⁶⁶ *Id.* 377 (citing *Greene v. Marin County Flood Control & Water Conservation Dist.*, 109 Cal. Rptr. 3d 620 (2010)).

¹⁶⁷ *Id.* at 380.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.* at 381.

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

the part of the courts to support conservation efforts, so long as they are within the voter-mandated limits of the law.

D. Recommendations

In order to ensure California's urban low-income and minority residents are not disproportionately affected or even priced out of the water market, by continuing drought, water agencies across the state should start by implementing tiered pricing systems that meet the requirements of the state's constitution. Two approaches could accomplish that: (1) have the relevant electorate approve higher rates at the ballot box, or (2) calculate how much of the water supply customers are responsible for based on their rate of usage, and tier-price them accordingly, as opposed to setting tiers based on budget projections.

With tiered pricing as the state-wide foundation for local agency conservation plans, the state should provide funding for a series of other technological and policy implementations that agencies could use to curb the impact of drought on those who struggle to meet their financial obligations before their water bill even becomes an issue. First, agencies should work to ensure that their customers are metered. Lacking the capacity to measure usage means lacking the ability to price according to use, so metering is a prerequisite to tiered pricing. Second, water agencies near the ocean should look to desalination. While the cost can be twice as high as conventional supply sources, the practice is becoming increasingly affordable with advances in technology.¹⁷⁴ Third, agencies should promote the "culture of nagging," in which neighbors feel enough of a sense of shared responsibility that they are willing to share advice on how to save water, or in other instances, to inform the water agency that their neighbors are overusing.¹⁷⁵ And fourth, agencies should increase investment in greywater systems in order to get multiple uses from the same supply of water. Agencies can use these plants and piping to

¹⁷⁴ Justin Gillis, *For Drinking Water in Drought, California Looks Warily to Sea*, N.Y. TIMES (Apr. 11, 2015), http://www.nytimes.com/2015/04/12/science/drinking-seawater-looks-ever-more-palatable-to-californians.html?_r=0.

¹⁷⁵ Matt Richtel, *A Culture of Nagging Helps California Save Water*, N.Y. TIMES (Oct. 12, 2015), <http://www.nytimes.com/2015/10/03/science/a-culture-of-nagging-helps-california-save-water.html>.

account for a substantial portion of need.¹⁷⁶ Different forms of these policies and technologies may be better suited to some agencies than others, but if California is going to weather long-term drought without overburdening urban low-income and minority residents, it will need to invest in these programs.

IV POTENTIAL HURDLES

Responding to a long-term shift in the environment is expensive and requires a substantial amount of political will and capital. As drought has continued and intensified, California's legislature, governor, and arguably its judiciary, have shown a willingness to put a shoulder to the wheel and make the investments and policy decisions necessary to meet the drought's technological and political challenges. However, low-income minorities are still at risk of being priced out of the water market in urban areas. They are also at risk of continuing without an appropriate level of water access in rural areas. Ensuring the wellbeing of these communities requires elected officials to overcome or shift the political will of high-income earners who have the time, energy, and finances to be politically active, and who are either unaware of or unmoved by the need for shared conservation.

There is no reason to believe that technology and policymakers' understanding of water systems will not continue to evolve as drought challenges them. Further, there is little reason to believe it will be less expensive to put off addressing infrastructure needs until the infrastructure is beyond use, so this amounts to a human problem. To get wealthier, politically influential Californians to support allocating resources in a manner that ensures the needs of low-income citizens and minorities are met, policymakers will have to convince these socio-economic elites that they, too, have skin in the game.

The most effective way to accomplish this is implementing some of the policy recommendations put forward here. Beyond cutting off service, charging high-usage customers in a manner commensurate with their cost to the water supply system is the simplest and most effective way to turn them from passive consumers to active participants solving drought-related issues. Further, having usage

¹⁷⁶ John Schwartz, *Water Flowing From Toilet to Tap May Be Hard to Swallow*, N.Y. TIMES (May 8, 2015), <http://www.nytimes.com/2015/05/12/science/recycled-drinking-water-getting-past-the-yuck-factor.html>.

measured, paying more to drink ocean water, using sociological incentives or disincentives, and using greywater are all things that should make consumers aware of the severity of the shared problem. While consumers may refuse to accept responsibility and instead argue that irrigation takes too much water or that water resources are underdeveloped due to environmental concerns, once pressed with living on less or different water, they will likely be more sensitive to others in similar, although still worse, situations.

CONCLUSION

The California Water Code ensures “every human being[’s] . . . right to safe, clean, affordable, and accessible water adequate for human consumption, cooking and sanitary purposes.”¹⁷⁷ There, California has codified its obligation to the rights of all of its residents. While long-term and continuing drought conditions challenge that commitment, and government at all levels has not responded with full force, California has worked to ensure it meets its commitment. Funding limitations have not been fully adapted to meet the needs of rural communities, but water access in those communities has been largely stabilized as agencies work to provide long-term solutions. Further, local water agencies have been slow to implement some key technologies and policies, and they have been forced by the courts to adapt their tiered pricing systems to the state’s Constitution, but these agencies now have a clearer field of play in which to create equitable pricing structures. California has a large number of tools, both legal and technological, with which it can meet its obligation to its most vulnerable people, and the drought forces California to implement those tools. It is difficult to ask the state to right the historical wrongs that have helped foster an environment in which drought puts minority groups at risk, but it is easy to ask the state to not exacerbate those wrongs.

¹⁷⁷ Section 106.3 of the Cal. Water Code.

