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August 25, 2017

Sent via email to: Mary.Yang@waterboards.ca.gov

The Honorable Felicia Marcus, Chair
and Members of the State Water Resources Control Board
c/o Clerk to the Board—State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: **Public Comments on Realizing the Human Right to Safe, Affordable Water through a Statewide Water Affordability Program (AB 401 Implementation)**

Dear Chair Marcus and Members of the Board:

The UC Berkeley Environmental Law Clinic, on behalf of The Environmental Justice Coalition for Water and the undersigned organizations and individuals, thanks the State Water Resources Control Board (the Board) for the opportunity to provide public comments on the development of the Board's proposal for a statewide "Low-Income Water Rate Assistance Program," as envisioned in AB 401 (Dodd, 2015).

We welcome the Board's acknowledgement that any program developed in response to AB 401 must be viewed both as fulfilling the state's commitment to the human right to water under AB 685 (Eng, 2012) and as a key component of the Board's broader work to achieve safe, affordable water for all. However, we are concerned that the Board's proposed scenarios focus too narrowly on providing a household-level subsidy, and as such would not achieve affordability for many of the state's diverse low-income households. Instead, we encourage the Board to create a statewide water affordability program that makes the best use of the state's resources to ensure that California's low-income households can afford the basic necessity of water, as guaranteed by the human right to water.

In support of the state's leadership on these critical issues, we offer the attached report. Our detailed analysis and recommendations address those measures necessary to develop a true affordability program and thus ensure access to a basic amount of water for all Californians. We hope these recommendations will prove useful as the Board prepares its proposal for the Legislature.

Best regards,

Britton Schwartz, UC Berkeley Environmental Law Clinic Fellow

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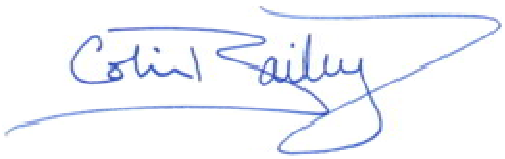

Colin Bailey
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Realizing the Human Right to Safe, Affordable Water in California

Recommendations for a Statewide Water Affordability Program

August 25, 2017

Environmental Law Clinic, UC Berkeley School of Law
On Behalf of The Environmental Justice Coalition for Water

BerkeleyLaw
UNIVERSITY OF CALIFORNIA
Environmental Law Clinic

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Water Justice for All

Realizing the Human Right to Safe, Affordable Water in California: Recommendations for a Statewide Water Affordability Program

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EXECUTIVE SUMMARY

With the passage of Assembly Bill (AB) 685 in 2012, California became the first state to legislatively recognize the human right to water.[1] In 2015, the state legislature passed AB 401, asking the State Water Resources Control Board (the Board) to propose a "Low-Income Water Rate Assistance Program" by early 2018.[2] AB 401 presents the state with the opportunity to solidify its leadership role by creating the country's first statewide water affordability program.

Water affordability is a major concern nationwide, as water rates skyrocket, real wages stagnate and the federal government rolls back drinking water protections. In the midst of this growing crisis, the rest of the nation will look to California for a solution. If California takes up this challenge and crafts a program that genuinely achieves affordability for low-income residents, while prioritizing California's commitments to the human right to water, environmental sustainability, and water conservation, California will prove itself a model for the nation.

The task is daunting, but the need is urgent and compelling. Against a backdrop of regional differences and regulatory complexity, California encompasses approximately 7,500 public water systems,[3] with wide variations in their size and resources.[4] Likewise, over 34% of the state's households are low-income,[5] with a diverse set of needs and situations. In California's cities, low-income households face shutoffs and evictions when forced to choose between paying for water or paying the rent, while their rural counterparts pay twice for water—once for contaminated tap water and again for expensive but safer bottled water. Homeless persons lack access to water and sanitation altogether. Only an integrated solution that recognizes the broader connections among water affordability, quality, and conservation under the umbrella of the human right to water can resolve these diverse issues.

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[1] California State Water Resources Control Board, Resolution No. 2016-0010, "Adopting the Human Right to Water as a Core Value and Directing Its Implementation in Water Board Programs and Activities," Feb. 16, 2016, p. 1, recital 1, available at http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2016/rs2016_0010.pdf [hereinafter SWRCB Human Right to Water Resolution]; AB 685 (Eng, 2012) (Codified at CAL. WATER CODE § 106.3).

[2] AB 401 (Dodd, 2015) (Codified at CAL. WATER CODE § 189.5). We note that nothing in AB 401 precludes the Board from proposing a program that also covers wastewater and stormwater charges and that these costs also impose a substantial burden on low-income households. We urge the Board to lay the foundation for its proposed water affordability program to include these additional costs in the future.

[3] The California State Water Resources Control Board regulates all public water systems, including those that are publicly-owned as well as those that are investor-owned. However, the California Public Utilities Commission (CPUC) "is charged with ensuring California's 115 investor-owned water utilities and 14 investor-owned wastewater utilities provide safe and reliable water to customers at reasonable rates. Water utilities regulated by the CPUC deliver water service to about 16% of the state's population. The remaining water customers in California are served by publicly-owned utilities (POU) which are self-regulated and not under CPUC jurisdiction. POUs must restrict water rates to the cost of service." AB 401 Assembly Floor Analysis, September 8, 2015, 2.

[4] California State Water Resources Control Board, Division of Drinking Water, "Drought Impact on Public Drinking Water Systems," (July 10, 2015), available at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DroughtImpact_PublicDrinkingWaterSystems.shtml.

[5] Estimate under AB 401 threshold of 200% of the Federal Poverty Level. University of California Los Angeles, Luskin Center for Innovation, Presentation for the State Water Resources Control Board: Program Scenarios to Provide Affordable Drinking Water to Low-Income Californians (May 11, 2017), available at http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/acwa_051117_by_ucla.pdf [hereinafter UCLA Program Scenarios Presentation to SWRCB].

The Board has recognized the importance of a comprehensive approach. It has acknowledged that an effective AB 401 program must fulfill the state's commitment to the human right to water and form part of the Board's broader work to achieve safe, affordable water for all.[6] Yet the Board's proposed scenarios (spring 2017)[7] focus narrowly on providing a household-level subsidy. This type of "assistance" program will not achieve water affordability for many Californians. A uniform discount or subsidy will not, for instance, be sufficient for rate-payers served by systems with very high water rates. Nor will it help people in rural areas who do not have access to safe water in the first place. Assistance programs also will not address critical issues like water shutoffs for nonpayment, or lack of water access for homeless persons.

To support the state's continued leadership on these critical issues, UC Berkeley's Environmental Law Clinic, on behalf of The Environmental Justice Coalition for Water and the undersigned organizations and individuals, offers detailed analysis and recommendations on those measures necessary to bridge the gap between an "assistance" program and a true "affordability" program, and, thereby, to realize the human right to water—*i.e.*, safe water that is genuinely available to all Californians, rather than water that is merely cheaper than before. Our recommendations, likewise, take up AB 401's call to explore ways to achieve affordability beyond rate assistance and to consider the part that utilities can play in making water affordable for low-income households.

In outlining a comprehensive program, the report suggests that the Board consider any water bill subsidy program as a part of a broader water affordability initiative that includes (1) state legislation restricting water service disconnections for inability to pay; (2) a program to promote household-level conservation and efficiency, including leak audits, repair assistance, and device replacement; (3) measures to improve utility-level affordability, including the promotion of tiered rate structures, and consideration of affordability as a factor in water system consolidations; and (4) increased efforts to prevent and mitigate contamination of drinking water sources, including the incorporation of a polluter pays approach into potential funding mechanisms. The report also suggests that the Board move away from a uniform percent discount, and consider either a water bill discount calculated to ensure no household pays more than 2.5% of household income[8] for a basic amount of water (the international standard for water "affordability"),[9] or a statewide lifeline water rate. Specifically, the Board could work with utilities to tier their rates, and then cover the difference for a lifeline rate that makes a basic

[6] SWRCB Human Right to Water Resolution, *supra* note 1 at p. 3, recital 12.

[7] *See* California State Water Resources Control Board, Notice of Public Meetings Summer 2017 (June 29, 2017), available at http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/ab401_pubnotice_2017_jun_aug.pdf [hereinafter SWRCB Summer 2017 AB 401 Public Meetings Notice]; UCLA Program Scenarios Presentation to SWRCB, *supra* note 5.

[8] In the alternative, we also support the 1.5% of Federal Poverty Level indicator suggested by Pacific Institute in their comments.

[9] PATRICIA A. JONES & AMBER MOULTON, THE INVISIBLE CRISIS: WATER UNAFFORDABILITY IN THE UNITED STATES 6 (2016), available at http://www.uusc.org/sites/default/files/the_invisible_crisis_web.pdf (noting that there is not a magic number, but 2.5% is a good rule of thumb) [hereinafter UUSC Water Affordability Report]; Inga T. Winkler, *The Human Right to Water: Significance, Legal Status and Implications for Water Allocation* 138 (2012) [hereinafter Winkler Human Right to Water Book].

amount of water affordable.[10] It could pair this with community or system-level support to small water systems with very high rates, in lieu of or in addition to temporary household-level assistance.[11] In addition, our report provides guidance on how the Board can create a program that reaches high risk populations like homeless persons, renters, mobile home owners, and private well users, who may not fall within the scope of a traditional assistance program, but face significant obstacles to water access and affordability.[12]

Designing a Program Consistent with AB 685

Under AB 685, "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."[13] The right thus guarantees access to a sufficient amount of water for basic household needs, and any program benefit should reflect this commitment. There are thus some baseline requirements.

Any Water Affordability Program Must Include Shutoff Protections. Any water affordability program must include shutoff protections for households that cannot pay, because shutoffs for inability to pay are fundamentally incompatible with the human right to water, and cause serious harm to low-income households. Utilities currently bear the cost of lost revenue and bad debt generated by disconnecting households that genuinely cannot afford to pay their bills. While a program that helps set rates at an affordable level will ameliorate much of this harm, some households may remain unable to pay even a reduced bill. Accordingly, we recommend that the Board propose a statewide legislative ban on water shutoffs for inability to pay (and related fines or penalties) and craft it in such a way that utilities can recoup lost revenue without running afoul of Proposition 218.[14] To avoid the "free-rider" problem, the state could assist utilities in installing flow restrictors at all meters to limit water flow to households in arrears, thereby assuring access to a basic amount of water while reducing utilities' revenue loss. Additionally, the Board should narrowly tailor the proposed shutoff ban to what the human right to water requires: shutoffs for inability to pay. Because it will be difficult to make this calculation on a per-household basis, we suggest that the program protect against shutoffs for all eligible households or, at least, for all enrolled households. We further suggest that the program take steps to minimize the likelihood of enrollees facing a shutoff by providing struggling

[10] To allay utility concerns about administrative costs, the program could alternatively create a centrally administered statewide lifeline rate where the state provides a subsidy equivalent to the difference between the state-mandated affordable cost of 12 CCFs and the actual cost of the first 12 CCFs of water in each system.
[11] Specifically, we recommend that the program provide temporary household-level assistance in these high-cost systems while the State Board moves the system toward a sustainable solution to provide safe, affordable water to its customers. The Board could use its powers under SB 552 to direct the system to invest water revenue towards these improvements (or require that the program subsidy be used in this way); this approach will allow the program to address household-level needs without propping up a failing system. As a related measure, we suggest the Legislature expand the Board's SB 552 powers to include systems that are struggling to provide affordable water.
[12] While it is regrettably outside the scope of this report, the program should also include elements tailored to the unique needs of Califonia's Native population. We recommend that the Board consult with California's diverse Native communities to solicit their input.
[13] CAL. WATER CODE § 106.3(a).
[14] *See* Section IV.A, *infra*, for analysis of two potential models that allow utilities to recoup lost revenues while remaining in compliance with Proposition 218.

households a temporarily increased subsidy, retroactive enrollment, and debt forgiveness where necessary.

The Program Subsidy Should Be Targeted and Responsive to Need. Because not every household will need the same level of assistance to achieve affordability, we suggest that the program (in whatever form it takes) provide a subsidy that is proportional to the household's needs and size. Any benefit calculation should take into account the number of people living in the household and particular circumstances that might affect water affordability (such as high medical bills, high rent, or the need to purchase safe replacement water). Likewise, although we generally support 12 CCFs as the correct volume for the basic household needs for a family of four, there must be some flexibility to meet greater household needs, setting a universal basic volume service level is unlikely to be appropriate. Instead, basic water volume should be calculated in a way that is more tailored to individual household needs and size.

The Program Should Prioritize Flexible and Inclusive Eligibility Requirements and Enrollment Procedures to Maximize Reach. To ensure that the program comports with the human right to water and includes as many low-income households as possible while minimizing the administrative burden, the Board should prioritize flexible eligibility requirements and simple enrollment procedures. To include households that need assistance (*e.g.*, due to high cost of living, medical conditions, or vulnerable household members like children, elderly persons, or persons with disabilities), but may not meet the income criteria, we suggest the program allow for a needs-based variance. To facilitate ease of enrollment, we suggest the program follow California Alternate Rates for Energy[15] (CARE) by allowing automatic enrollment of applicants already participating in other state or federal assistance programs with similar income requirements and by applying a presumption of eligibility to all applicants.

Thinking Beyond the Bill Discount to Maximize Affordability. In addition, our analysis demonstrates, however, that because water rates vary dramatically, neither a uniform percentage discount nor a flat dollar payment would maximize affordability. In addition to having limited impact on those who need help most, a flat or percentage-based discount paid by the state for every qualifying person would be enormously expensive. The Board should thus consider more efficient options. For instance, grants for construction, operations and maintenance, and consolidation for small community water systems in rural areas would be much cheaper than paying an ongoing monthly subsidy to each rate-payer. Likewise, working with utilities to provide an inexpensive first-tier water rate for basic needs would significantly lower costs to the state and to low-income users. Accordingly, to maximize affordability and efficiency, we suggest that the Board consider working with utilities to propose a statewide lifeline water rate that is compatible with the constraints imposed by Proposition 218.[16] Alternatively, we suggest a program discount that sets the cost of 12 CCFs[17] of water as 2.5% of household income.

[15] CARE is a low-income rate assistance program for energy bills. For more information, see California Public Utilities Commission, CARE/FERA Programs, available at http://www.cpuc.ca.gov/General.aspx?id=976.
[16] As explained *infra* at Section IV.C, Proposition 218 prohibits publicly owned utilities from subsidizing low-income rate assistance by charging other customers more than the cost of service. See Section IV.C and Appendix III, *infra*, for analysis of two options for creating a statewide lifeline rate that is compatible with Proposition 218.
[17] Centum cubic feet (CCF) is one of the most common units used by water utilities to measure water use. One CCF equals 748 gallons. United States Environmental Protection Agency, Understanding Your Water Bill, available at https://www.epa.gov/watersense/understanding-your-water-bill.

Working with Utilities to Reduce Program Costs and Increase Affordability by Supporting Efforts to Tier Water Rates

As a complement to a statewide affordability program, we suggest that the Board work with utilities to make rates more affordable, in keeping with AB 401's call for "a discussion of any constitutional restrictions on public water agency ratesetting," and requirement that the Board's proposal include "a set of recommendations and best practices of cost-savings measures to ensure water utilities are demonstrating whether and how they are keeping rates low."[18] The best option would be to amend Proposition 218, since utilities could do much more to promote affordability if the law allowed them to use rate revenues to fund customer assistance programs. Absent this change, we conclude that Proposition 218 allows utilities to adopt usage-based tiered rates, which promote affordability and conservation, and that utilities would benefit from state support to do so. The Board's proposal should include elements that encourage utilities to adopt tiered pricing, including technical assistance to support small utilities in adopting these rate structures and a best practices report or guidance for public water utilities that defends tiered water rate structuring against Proposition-218-based legal challenges.

Conservation Measures as a Key Component to Reduce Program Cost and Water Waste

In line with the state's commitment to conservation as a California way of life,[19] the program should also include household-level conservation measures to reduce program cost and water waste, and to help keep water affordable for low-income users. AB 401 requires that the Board's report to the Legislature include "recommendations for other cost-effective methods of offering assistance to low-income water customers besides rate assistance, including [] installation of water conservation devices[] and leak repair."[20] Water costs increase for households with leaks and old appliances. Fixing leaks and upgrading inefficient fixtures are important to controlling water costs for the user, and for the state, which makes helping households that cannot afford to repair leaks or replace inefficient fixtures a critical component of any affordability program. Accordingly, we recommend that the program, either directly or in combination with another program, provide a conservation audit and assistance with leak repair and fixture replacement to all enrolled households.

Addressing Unique Affordability and Access Concerns for Renters and Mobile Home Residents

Many renters and mobile home owners need program assistance, but are not water utility customers, which means an on-bill discount will not reach them. Because multifamily rental housing and mobile homes are both crucial sources of affordable housing in California that house some of the state's most vulnerable low-income households, including these groups is critical to designing a program that is consistent with the human right to water. Based on our extensive research into the unique needs and circumstances of these households, we suggest that the

[18] CAL. WATER CODE § 189.5(b)(3).
[19] *See, e.g.*, California Office of the Governor, Executive Order B-37-16, Making Water Conservation a California Way of Life, May 9, 2016, available at https://www.gov.ca.gov/docs/5.9.16_Attested_Drought_Order.pdf [hereinafter Making Water Conservation a California Way of Life EO].
[20] CAL. WATER CODE § 189.5(d).

program incorporate targeted measures to include tenants of market-rate rental housing, affordable housing, mobile home parks, as well as employer-provided housing for farmworkers.

Recommendations for Tenant-Paid Water Costs in Market-Rate Housing. The first step in designing an effective and efficient program for the one in three Californians living in master-metered rental units[21] is to distinguish renters living in market-rate housing from those living in non-profit affordable housing and for-profit affordable housing. Tenants in market-rate housing pay for their water in one of three ways: either "in-rent," through a monthly Ratio Utility Billing System (RUBS),[22] or through submetering. Although they do not pay any utility directly, tenants bear some or all of the cost of their water bill (and sometimes more). These tenants need access to the Board's program, and we suggest that the Board develop a mechanism to directly provide water rebates to these low-income renters. We discourage the Board from providing the rebate to market-rate landlords because of the potential for abuse (*i.e.*, failure to pass rebates along to tenants).

Recommendations for Non-Profit Affordable Housing. In contrast, most tenants living in non-profit owned affordable housing are already protected from high utility bills in various ways, whether the building is master- or submetered. The non-profit entity typically bears the expense of providing water. In those circumstances, we recommend that the Board provide the program subsidy directly to the non-profit entity, which would likely invest these savings in the property with benefits for all tenants (*e.g.*, capital improvements or amenities like laundry facilities).[23] However, non-profit affordable housing operators that do charge their tenants for water should not receive the program subsidy; instead, the Board should direct the program benefit directly to tenants in the same manner as we recommend for individuals living in for-profit affordable housing.

Recommendations for For-Profit Affordable Housing. Individuals living in for-profit affordable housing receive some protections against high water bills, but these protections are often insufficient to make water affordable for the extremely low-income individuals who typically occupy these units. Accordingly, tenants living in for-profit affordable housing may require assistance similar to that provided to market-rate renters. Although these tenants already receive a Utility Allowance (UA), which might argue in favor of providing a reduced program benefit, the wide disparities in UAs across the state combined with the administrative costs associated with calculating a reduced benefit suggest that it would be more effective and efficient to simply treat these renters in the same way as market-rate renters. In either case, for-profit

[21] Department of Housing and Community Development, California's Housing Future: Challenges and Opportunities 15 Draft January 2017, available at http://www.hcd.ca.gov/policy-research/plans-reports/docs/California's-Housing-Future-Full-Public-Draft.pdf [hereinafter California's Housing Future Report].

[22] Ratio Utility Billing Systems (RUBS) are a more sophisticated way of allocating a water charge, although. RUBS use an allocation-based formula to bill residents for their estimated water consumption. The allocation formula can take into account dwelling unit square footage, number of bedrooms, number of occupants, number of bathrooms, or number of fixtures. RUBS charges can result in unjust and unaffordable water bills for low-income households and have been criticized as arbitrary, highly variable, and subject to abuse when landlords profit by passing on inflated administrative fees to tenants. As a result, some states have banned RUBS altogether, though efforts to do so in California have been unsuccessful. For further discussion, see Appendix VII A.2.a, *infra*.

[23] The Board could also consider conditioning receipt of the program benefit on the non-profit entity agreeing to invest the savings in this way.

affordable housing operators should not be eligible for the program benefit, as they pass water costs onto their tenants and would not reinvest savings in the building or lower rents.[24]

Recommendations for Mobile Home Residents. About half a million Californians live in prefabricated housing like mobile homes,[25] including vulnerable low-income groups like farmworkers,[26] senior citizens, and tribal members.[27] Ensuring their access to the Board's program is particularly critical in a context where many mobile homes are substandard, lacking basics like plumbing and kitchens,[28] and many of the state's mobile home parks—particularly those that are unpermitted[29]—lack safe drinking water, basic infrastructure, and reliable electricity.[30] While some park owners extract money from the parks without investing in improvements, often the park owners are themselves low-income farmworkers who lack the funds to upgrade the park to current code standards.[31]

Like multifamily renters, mobile home residents typically are not utility customers[32] but struggle to pay for water, either in-rent or through a monthly water charge, such as a RUBS or a submeter charge. Because of the similarity in metering schemes, we suggest that the program provide the same direct water rebate proposed for market-rate multifamily tenants to mobile home residents, regardless of whether they live in a permitted or unpermitted park. However, given the extreme variation in the quality of mobile home water systems, the program should also provide assistance to mobile home park owners to perform water system upgrades that put the water systems in code compliance.

Addressing Unique Affordability and Access Concerns for California's Homeless Population

Homeless persons often lack access to water and sanitation, with heartbreaking consequences. Lack of access to water and sanitation particularly harms women, elderly, and disabled persons. Because they do not receive a water bill, homeless persons are another group that is highly likely both to need assistance and to be excluded from the Board's program absent additional measures beyond an on-bill discount. We recognize that a water affordability program will not fully resolve the water affordability and access concerns of homeless persons, who ultimately need stable housing. However, the program can incorporate measures designed to improve access to water and sanitation as an interim term solution. At a minimum, the program

[24] While we encourage the Board to consider offering a subsidy to for-profit affordable housing operators on the condition that the savings be invested in the building or passed along to tenants, in either case, eligible tenants of such properties should receive a direct subsidy.
[25] California's Housing Future Report, *supra* note 21, at 15.
[26] Paloma Esquivel. "Farmworkers find a bumper crop of squalor in Coachella Valley trailer parks." Los Angeles Times. October 6, 2015. http://www.latimes.com/local/california/la-me-farmworker-trailers-20151006-story.html [hereinafter LA Times Coachella Valley Trailer Parks Article].
[27] California's Housing Future Report, *supra* note 21, at 21.
[28] *Id*.
[29] Because mobile home residents often have nowhere else to go, we support bringing parks up to code compliance over closure. We also urge a focus on affordability with regard to measures like consolidation that can raise water costs in this context.
[30] LA Times Coachella Valley Trailer Parks Article, *supra* note 26.
[31] *Id*.
[32] *See* California State Senate, *What Every Mobile Home Owner Should Know* 3, http://sunnyvale.ca.gov/Portals/0/Sunnyvale/CDD/Housing/for%20Home%20Owners/CA%20Senate%20Mobilehomes.pdf.

should subsidize water for drinking, hygiene, and sanitation at homeless shelters and other providers of services to homeless persons; incentivize increased access to drinking fountains and public toilets; and promote the creation of permanent hygiene facilities (in the form of showers, sinks, and laundry machines) for homeless persons.

Addressing Unique Concerns for the Undocumented Community

The human right to water extends to everyone, regardless of immigration status, and the vulnerable state of undocumented individuals makes them likely to need access to a water affordability program. Accordingly, the Board should propose that the program, like CARE, be open to all low-income Californians, regardless of documentation. It should support undocumented persons' access to the program by protecting confidentiality; publicly adopting a formal policy of not sharing enrollee information with other agencies; refraining from requesting information that might unfairly burden undocumented individuals, like social security numbers; and accepting flexible income verification documents, such as employer or clergy letters, to avoid limiting eligibility to people who have access to federal-issued or state-issued documents such as W2s.

Recognizing the Connection Between Water Quality and Water Affordability, Particularly for Rural Communities with Contaminated Drinking Water

For many Californians, water quality has a significant impact on water affordability. The Board should recognize this connection between water quality and affordability, particularly for low-income communities facing drinking water contamination, and consider how to create an affordability program under AB 401 that complements and builds upon the support proposed for small systems by Senate Bill (SB) 623 (Monning, 2017),[33] as well as related water conservation, clean-up and contamination prevention programs. Ensuring safe and affordable drinking water requires a plan that takes into account all of these moving pieces.

For private well owners and communities with small water systems that rely on groundwater,[34] rate assistance to individuals will not ensure affordable water if and when their groundwater becomes contaminated. Contamination increases the cost of water by forcing communities to rely on bottled water, or to engage in costly infrastructure projects like drilling new wells, blending water, consolidating with a larger system, or building a treatment plant. Failing to control contamination will compound the state's expenses, as the state simultaneously funds projects to address the system-wide safe water access issue, and then must provide ongoing subsidies to keep this very expensive water affordable. Thus, the need to address contamination is a matter not only of fulfilling the human right to water, but also of the state's bottom line or, at the very least, the effectiveness and sustainability of the Board's program.

[33] SB 623 (Monning, 2017), introduced in 2017, proposes the creation of a Safe and Affordable Drinking Water Fund to support short- and long-term solutions to chronic drinking water contamination for small, low-income communities. *See* SB 623, at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB623.

[34] Eli Moore & Eyal Matalon, *The Human Costs of Nitrate-contaminated Drinking Water in the San Joaquin Valley*, Pacific Institute 43 (March 2011), available at http://pacinst.org/wp-content/uploads/2013/02/nitrate_contamination3.pdf. [hereinafter Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water].

Controlling contamination also makes water affordability program more cost-effective by limiting the number of individuals and communities who need ongoing and expensive support, and properly incentivizing the party best able to fix the problem—the polluter. In this regard, the Board may want to consider including pollution prevention measures in its AB 401 proposal by making explicit linkages between affordability and its work to protect water quality, creating a complementary series of measures to limit pesticide and fertilizer applications and require clean-up and mitigation of contaminated aquifers, or partnering with other agencies to reduce contamination. One particularly fair way to stem contamination of groundwater caused by agricultural activities and fund mitigation projects would be to include either a special-purpose tax on fertilizer sales to address nitrate contamination, or an excise tax on all fertilizer distributers, with the funds designated for remediation and mitigation projects as well as some portion of the statewide affordability program.

Ensuring access to safe drinking water in the short run will require system-level support, with mitigation projects, operations and management support, technical assistance for small systems and private well owners, consolidation with an eye toward maintaining affordability, and bottled water subsidies. In the long run, a sustainable program will require preventing contamination. Indeed, preventing contamination is likely to be one of the most "cost-effective methods of offering assistance to low-income water customers besides rate assistance,"[35] as suggested by AB 401.

Conclusion: Crafting an Integrated Solution for California and a Model Program for the Nation

Ultimately, the establishment of the nation's first statewide water affordability program will be a tremendous accomplishment in its own right. But by creating a program that links to the state's overall efforts to realize the human right to water and make water conservation a California way of life, the state can transcend outdated models of piecemeal solutions and band-aid assistance to achieve a California where all have safe, affordable water. To do so, the state will need to adopt a flexible, inclusive *affordability*—not merely *assistance*—program, targeted to meet the needs of California's diverse low-income population (including those who are not utility customers, like renters, mobile home residents, and homeless individuals) and integrated with measures to encourage utilities to maximize affordability, improve household-level conservation, prevent and mitigate drinking water contamination, and invest wisely in upgraded water infrastructure. By providing a benefit tailored to the needs of low-income households and coordinated with these complementary measures, the state will make the best use of its precious resources and improve the lives of the most vulnerable Californians.

[35] CAL. WATER CODE § 189.5(d).

SUMMARY OF RECOMMENDATIONS

Foundations for a California Water Affordability Program

- The SWRCB should adopt a definition of water affordability in line with the human right to water. We suggest an affordability threshold of a combined water and sewer service bill for basic human and household needs of no more than 2.5 percent of household income.
- The SWRCB should propose an affordability program rather than an assistance program. To do so, the Board should consider additional scenarios calculated to ensure all enrolled households fall within the affordability threshold.

Addressing Water Unaffordability in California

- The program should be tailored to address the unique drivers of unaffordability experienced by low-income Californians. In addition to poverty in the face of high cost of living and rising water bills, these include environmental injustice, water loss, and insufficient investment in infrastructure.
- The program should also include or be complemented by strengthened efforts to prevent and mitigate drinking water contamination and to assist small water systems struggling with expensive solutions to chronic contamination.
- The program should include a conservation and efficiency component to address the affordability impacts of wasted water.
- The program should consider the importance of working with—and possibly providing support—to utilities and other agencies to upgrade California's aging water infrastructure and to update sewer-sanitary systems, both of which are poised to significantly increase water costs across the state.
- To ensure that the Board has an accurate picture of water affordability, it should require all public water systems to report data about water, wastewater, and stormwater charges, as well as information about service disconnections.

Program Features that Comport with the Human Right to Water

- The state should recognize that water shutoffs for inability to pay are incompatible with the human right to water.
- The Board should recommend a statewide legislative ban on water shutoffs for inability to pay, crafted so utilities can recoup lost revenue. This ban should limit or waive fines for late payment, reconnections, and "water theft" (turning on a connection without permission) for low-income households.
- The Board should require all public water systems to report annual data on shutoffs, including the income level, size, demographics, and vulnerability of disconnected households.
- The program should provide (1) an increased subsidy for households struggling with water debt or facing disconnection, (2) retroactive enrollment, and (3) debt forgiveness and payment plans.
- The Board should prioritize flexible eligibility requirements and simple enrollment procedures.

- ✓ The program should provide a needs-based variance for applicants who do not meet the income threshold.
- ✓ It should also provide automatic enrollment for applicants participating in other income-qualified assistance programs, and it should apply a presumption of eligibility to all applicants.

- The program should protect applicant confidentiality.

Designing the Program Benefit to Maximize Affordability

- The Board should design the program benefit to maximize affordability while maintaining administrability.
- The program subsidy should ensure access to a basic amount of water for household needs, set at no less than 50 gallons per person per day. This standard should be tailored to individual household circumstances.
- The program should provide a subsidy proportional to household need and size, with an increased subsidy available when necessary.
- Any program discount should be calculated to best achieve affordability. The Board should prioritize options like calculating a bill discount that sets the water bill at no more than 2.5 percent of household income over options like a uniform percentage discount or a flat dollar payment.
- For high-cost systems, the program should temporarily provide household-level support while working with systems to achieve sustainability and lower costs.

A Statewide Lifeline Rate May Be a Good Programmatic Option for Affordability and Program Sustainability

- The Board should recommend that the state adopt a three-part approach to:
  - ✓ First, encourage utilities to adopt tiered rates including a lifeline rate that reflects the costs of providing a basic amount of water;
  - ✓ Second, impose a state-mandated lifeline rate that offers a basic amount of water at a nominal, affordable price; and
  - ✓ Third, reimburse utilities for the difference between the statewide rate and their own lifeline rate, using the program funding mechanism.

Working with Utilities to Reduce Program Costs and Increase Affordability for Low-Income Users

- The state should initiate the process to amend Proposition 218 to exempt low-income assistance, and the Board should support the current effort to do so through Senate Constitutional Amendment 4.
- The program should include elements that encourage utilities to adopt tiered pricing. First, the state can make clear that Proposition 218 does not prohibit tiered rates, and in some instances may require it. The state should also offer technical assistance to utilities to implement tiered pricing, and develop a best practices report or guidance that defends against Proposition 218 challenges to tiered water rate structuring.

Conservation Measures as a Key Component to Reduce Program Cost and Water Waste

- The program should include household-level conservation measures to provide low-income customers with free or low-cost water audits, leak repair, and device upgrades to reduce bills, improve affordability, and lower program costs. These measures could be provided in partnership with local entities, at little or no cost to enrolled households.

Addressing Unique Affordability and Access Concerns for Renters

- Low-income renters in market-rate housing should receive a direct monthly water rebate.
  - ✓ By giving the rebate directly to renters, this program design avoids the need for oversight to prevent landlord abuse and more accurately reflects the fact that most master-metered renters pay for water through their rent.
- If the Board chooses to pass the subsidy through the landlord, the Legislature should amend the California Civil Code to require market-rate landlords to pass on the subsidy to tenants—including a rental discount where applicable—and give tenants a judicial remedy.

Summary of Non-Profit Owned Affordable Housing Recommendations

- Non-profit affordable housing operators that do not charge their tenants for water should be eligible for a program discount on their monthly bill.
  - ✓ This includes non-profit operators of deed restricted housing as well as non-profits who operate affordable housing through a contract with local government or human service agency.
- Non-profit affordable housing operators that do charge their tenants for water should not receive the monthly on-bill discount.
  - ✓ In this case, the subsidy should flow directly to qualifying low-income residents in the same manner as for Section 8 or BMR tenants who receive Utility Allowances (see below).

Summary of For-Profit Owned Affordable Housing Recommendations

- Low-income renters living in Section 8 or BMR units should receive the program rebate directly.
- For-profit affordable housing operators should not be eligible for any type of on-bill discount.

Related Program Recommendations for Master-Metered Renters

- The program should include water audits to ensure that leaks or highly inefficient fixtures are not driving up the cost of the renter's water bill.
  - ✓ These audits should include linkages to existing fixture rebate programs.
  - ✓ Requiring the renter or landlord to upgrade their fixtures should not be a precondition of enrollment.
- To ensure that the program is effective, the Board should also consider advocating for:

- ✓ Regulation of RUBS and other abusive water charge practices by landlords.
- ✓ Consistent approaches to updating Utility Allowances to reflect the high cost of water in California and to comply with the human right to water.

Addressing Unique Affordability Concerns for Tenant-Paid Water Costs in Mobile Home Parks

- ➢ Low-income renters in master-metered mobile home parks should receive a direct monthly water rebate regardless of whether they live in a permitted or unpermitted park.
  - ✓ A direct rebate is particularly important in the mobile home context, where water cost markups are not uncommon and a large portion of renters lack access to safe, clean, affordable water.
- ➢ Mobile home renters who also have Section 8 vouchers and receive UAs should be treated the same as multifamily renters who receive UAs (see above).
- ➢ The Board should consider providing assistance to unpermitted mobile home parks to put their water systems in code compliance.
  - ✓ The program should not add to the financial obligations of unpermitted parks or require any upgrades as a condition of enrollment. The program should be implemented so that it does not increase the risk of park closures.
- ➢ Many mobile home communities are good candidates for consolidation with a neighboring municipal system, but the Board should incorporate measures to ensure consolidation improves affordability.

Addressing Unique Affordability and Access Concerns for California's Homeless Population

- ➢ The program should be available to facilities serving homeless persons if they provide access to water and sanitation; the program can serve as an incentive to encourage public and private facilities to make these basic services available. The receipt of other State resources for water-related projects can be conditioned on ensuring access to water for people who are living homeless.
- ➢ The Legislature should adopt a homeless persons' bill of rights that includes a right to access adequate water and sanitation and that ties receipt of relevant State funds to improving such access.

Addressing Unique Concerns for the Undocumented Community

- ➢ The program should accept flexible income verification documents to avoid limiting eligibility to people who have access to federal- or state-issued documents such as IRS W-2 forms.
- ➢ Eligibility screening procedures and applications should refrain from requesting unnecessary information that might unfairly burden undocumented individuals or American citizens who may not have such information, such as social security numbers.
- ➢ Program administrators and/or program employees should be prohibited from reporting information about the immigration status of program participants or applicants to immigration agencies.

Addressing Unique Concerns for California's Native Population

- Although beyond the scope of our report, the Board should conduct at least one consultation specifically for California's Native American Indian population to understand their unique water affordability needs and develop program recommendations.
    - ✓ This consultation should include unrecognized tribes and Native individuals living on allotment lands and in urban areas.

Recognizing the Connection Between Water Quality and Water Affordability, Particularly for Rural Communities with Contaminated Drinking Water

- The Board should recognize the connection between water quality and water affordability and consider ways to create a coherent, integrated policy for safe and affordable drinking water.
- AB 401 implementation should complement and build upon the support the Board seeks to offer to small systems (including potentially through SB 623's proposed Safe and Affordable Drinking Water Fund, if enacted), while including related water conservation, clean-up, and contamination prevention programs in a larger plan to achieve safe and affordable water for all Californians.
- Affordability should be added as a factor in system consolidations.
    - ✓ Where consolidation would improve affordability, the Board should encourage this solution, but where consolidation could raise rates or impose high service extension costs, the Board should either intervene or consider other solutions.
- Because rural communities with drinking water contamination likely pay twice for water—once for their water bill and again for expensive replacement water—the affordability program should consider these additional costs in determining eligibility and benefits.
    - ✓ For program participants receiving contaminated tap water, the Board should also consider providing a monthly replacement water stipend.
- The Board should consider incorporating pollution prevention measures into the funding mechanism for the affordability program. For increased costs caused by nitrate pollution specifically, the Board should consider identifying the benefits were the Legislature to adopt either a special-purpose tax or an excise task on fertilizer.

Minimum Steps Necessary to Fulfill the Affordability Aspect of the Human Right to Water in California

- Even if is not possible to create a fully-funded statewide water affordability program that meets all of the recommendations outlined above, we strongly urge the state to take the following minimum measures to ensure that every human being in California has access to affordable "water adequate for human consumption, cooking, and sanitary purposes":[36]
    - ✓ adopt protections against water service disconnections for inability to pay,
    - ✓ amend Proposition 218 to exempt low-income assistance or create a fund to support utility efforts to provide such assistance,

[36] CAL. WATER CODE § 106.3(a).

- ✓ encourage utilities to adopt tiered rates and connect low-income households to existing conservation and leak repair assistance programs,
- ✓ work with local jurisdictions to remove barriers to homeless access to water and sanitation, and
- ✓ vigorously enforce existing mechanisms to protect drinking water sources from contamination.

I. INTRODUCTION: CREATION OF A STATEWIDE WATER AFFORDABILITY PROGRAM IN LINE WITH CALIFORNIA'S COMMITMENT TO THE HUMAN RIGHT TO WATER

In designing a statewide water affordability program pursuant to Assembly Bill 401 ("Low-Income Water Rate Assistance Program"), the State Water Resources Control Board ("SWRCB" or "the Board") has a unique opportunity to fulfill a key aspect of the state's commitment to the human right to water. The UC Berkeley Environmental Law Clinic, on behalf of The Environmental Justice Coalition for Water and the undersigned organizations and individuals, welcomes this chance to provide public comments on the four scenarios and other aspects of the State Board's proposal for the design of a statewide water affordability program under AB 401,[37] which we have done in the comments that follow. As important, the Clinic and comment signatories here identify supplemental measures necessary to bridge the gap between an "assistance" program and a true "affordability" program, and thereby to realize the human right to water—*i.e.*, safe water that is genuinely affordable to all Californians, rather than water that is merely cheaper than before.

The Environmental Law Clinic[38] has conducted extensive legal and factual research into a statewide water affordability program under AB 401 that would maximize compatibility with the human right to water. We have spoken with leaders from low-income communities struggling with water affordability and service disconnections, legal and policy advocates with expertise in this area, and financial administrators from water utilities. This report details our findings, analysis, and recommendations, with a particular focus on program elements necessary for compatibility with the human right to water, specific program design features to take into account the unique needs of particular populations, including renters and other non-metered households, and the ways in which utilities can meet the state halfway by structuring their rates and programs to improve affordability within the constraints of existing state law, including Proposition 218.

We applaud the Board's adoption of "the human right to water as a core value and . . . the realization of the human right to water as a top priority[,]"[39] and recognition that any program developed in response to AB 401 must be viewed as fulfilling the human right to water. We likewise welcome the Board's recognition that, in line with the human right to water, any statewide water affordability program should reach as many low-income individuals as possible, regardless of whether they receive a water bill.

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[37] *See* SWRCB Summer 2017 AB 401 Public Meetings Notice, *supra* note 7; UCLA Program Scenarios Presentation to SWRCB, *supra* note 5.

[38] The UC Berkeley Environmental Law Clinic engages law students in environmental law and policy practice under the supervision of experienced attorneys. One of the Clinic's goals is to promote the implementation of the human right to water through work with environmental regulatory agencies, including California's SWRCB and the U.S. Environmental Protection Agency, on behalf of environmental justice clients. This work builds upon prior work by the UC Berkeley International Human Rights Law Clinic to explicate the human right to water in theoretical terms, and explain how it can be operationalized in a U.S. domestic context. (See, *The Human Right to Water Bill in California: An Implementation Framework for State Agencies* (UC Berkeley International Human Rights Law Clinic, May 2013).) ELC's work on the present report has also benefitted from pro bono support from Shute, Mihaly & Weinberger, and assistance from students at UC Davis.

[39] SWRCB Human Right to Water Resolution, *supra* note 1 at p. 3, resolution 1.

However, we are concerned that the four scenarios circulated by the Board would create an assistance program, rather than an affordability program. By that, we mean that each of the four scenarios centers around providing a uniform percentage discount off a basic amount of water. As detailed below, the human right to water requires affordability, and an assistance program of this kind would not achieve affordability for its enrollees, although it is of course better than no subsidy at all. Similarly, we are concerned that the four scenarios reflect an overly narrow focus on providing a subsidy to enrollees, without incorporating additional program elements designed to improve both affordability for low-income households and environmental sustainability, including household level conservation measures, tiered water rates, and pollution prevention.

As a final matter, we are concerned that because AB 401 tasks the Board with developing an assistance program for "rate" assistance, the Board may unduly limit its focus to conventional utility ratepayers, thereby failing to examine the unique water affordability challenges confronting low-income Californians who are not utility customers, such as renters, mobile home residents, and the homeless. We hope that the breadth and detail of the water affordability analysis in our comments will help the Board take a broader view of the communities needing affordable water, consistent with the intent of AB 401. The Board has begun to develop an integrated approach to providing safe and affordable water to all Californians, and we strongly urge the Board to ensure that any program proposed pursuant to AB 401 not read the statutory language hyper-literally, but instead reflects the need for a holistic, integrated approach to these interrelated issues.

Simply put: the Legislature's forward thinking in directing the Board to create a "Low-Income Water Rate Assistance Program" should not, by virtue of the bill title, be seen as a limiting instruction to focus only on "Rate"-payers and only on "Assistance" in the form of rate subsidy, but rather, should be seen as supporting and facilitating Board actions to ensure true affordability for all low-income Californians. Any form of water bill assistance provided by the state should accordingly be part of a broader safe and affordable water program designed to fulfill the human right to water for everyone in California, while also insuring environmental sustainability.[40]

Accordingly, in addition to providing guidance on program elements for a household subsidy for basic water needs, this report advocates that the Board should consider any water bill subsidy program as a part of a broader water affordability initiative that includes (1) state legislation restricting water service disconnections for inability to pay, and limiting fines for late payment, reconnections, and "water theft" (turning on a connection without permission) for low-income households; (2) measures to improve utility-level affordability, including the promotion of tiered rate structures and consideration of affordability as a factor in seeking or modifying water system consolidations; (3) a program to promote household-level conservation and efficiency, including leak audits, repair assistance, and device replacement; and (4) increased efforts to prevent and mitigate contamination of drinking water sources, including the incorporation of a polluter-pays approach into potential funding mechanisms for the household water subsidy.

[40] Central to the Environmental Law Clinic's operating philosophy is that meeting basic human needs and protecting the natural environment are not competing goals, but are mutually reinforcing ones. We accordingly believe — and our research here amply supports the proposition — that water conservation and primary pollution prevention are critical to both obtaining and maintaining affordable water, and to protecting California's environment.

This report first provides an overview of the foundations for a California water affordability program, including a summary of AB 401 and the effect of AB 685, California's human right to water policy. Next, it describes the nature of the water affordability crisis in California, recognizing that a statewide plan must be tailored to meet the unique needs of the state's diverse population. Third, the report offers detailed recommendations for program design that best comports with the human right to water, compares bill discount options to evaluate their effect on affordability, and provides guidance on the creation of a statewide lifeline water rate compatible with Proposition 218.

Additionally, the report evaluates the options available to utilities to improve affordability through rate structures and other policies, to the extent permitted under state law, in keeping with AB 401's call for "a discussion of any constitutional restrictions on public water agency ratesetting," and requirement that the Board's proposal include "a set of recommendations and best practices of cost-savings measures to ensure water utilities are demonstrating whether and how they are keeping rates low."[41] It then proposes that the program include household level conservation measures designed to lower household and program costs, as suggested by AB 401. Next, the report discusses the specific needs of vulnerable populations, including renters, mobile home park residents, the homeless, the undocumented, and tribal communities. Finally, the report explores the connection between water quality and affordability, particularly for communities facing drinking water contamination, suggesting that pollution prevention and mitigation measures are necessary to achieve water affordability in these cases.

We hope that this report provides the Board with helpful guidance on the design of a program that best fulfills the state's commitment to the human right to water, meets the needs of the state's diverse low-income households, and builds upon the strength of the Board's efforts to improve water quality and conservation statewide.

[41] CAL. WATER CODE § 189.5(b)(3).

II. FOUNDATIONS FOR A CALIFORNIA WATER AFFORDABILITY PROGRAM

A. AB 401: PROPOSING A STATEWIDE LOW-INCOME WATER RATE ASSISTANCE PROGRAM

Responding to rising water unaffordability in California, in 2015 Governor Brown signed the Low-Income Water Rate Assistance Act (AB 401).[42] AB 401 requires the State Water Resources Control Board (SWRCB) to propose a "Low-Income Water Rate Assistance Program" to the state legislature no later than January 1, 2018.[43] It defines "low-income" as "a household with income that is equal to or no greater than 200 percent of the federal poverty guideline level."[44]

To create the program, AB 401 directs the SWRCB to develop a plan with three main elements.[45] First, the plan must identify funding to support and implement the program, including a discussion of any constitutional restrictions on public water agency ratesetting.[46]

Second, the plan should describe the mechanism for delivering ratepayer assistance—either through direct credits to program enrollees or reimbursements to water service providers.[47] With any form of ratepayer assistance, the SWRCB must develop a plan for verifying the eligibility of low-income ratepayers.[48] The SWRCB must also include recommendations on the structure of the program and whether it should be administered at the state level or locally.[49]

Finally, the SWRCB must determine how much money it will need to collect from ratepayers to fund the program.[50] To ensure that water utilities are keeping their rates low, the SWRCB must also make recommendations regarding costs savings and best practices.[51]

In addition to the ratepayer assistance program, the SWRCB may also consider other cost-effective methods of offering assistance to low-income customers.[52] These methods could include billing alternatives, installation of water conservation devices, and leak repair.[53] AB 401 also recommends that the SWRCB consult existing water rate assistance programs at private utilities that the Public Utilities Commission has already approved.[54] Examples of such programs

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[42] Cal. Assembly Bill 401 (Dodd, 2012), codified at CAL. WATER CODE § 189.5 (2015); *see also* Governor Edmund G. Brown Jr., AB 401 Signing Message (2015).
[43] CAL. WATER CODE § 189.5(b). The Board must develop the plan by January 1, 2018 and present it to the state legislature by February 1, 2018. CAL. WATER CODE § 189.5(e)(1).
[44] CAL. WATER CODE § 189.5(f)(2). For purposes of this report, we have assumed that the program would adopt this measure as the affordability threshold. However, we encourage the Board to think more broadly about whether this is the correct measure, in line with our recommendations for flexibility in determining program eligibility, in Section IV.A.3, *infra*.
[45] CAL. WATER CODE § 189.5(b).
[46] CAL. WATER CODE § 189.5(b)(1).
[47] CAL. WATER CODE § 189.5(b)(2).
[48] *Id.* To qualify as low-income for the purposes of the Program, the household's income must be less than or equal to 200 percent of the federal poverty line. The SWRCB must also treat one-person households according to the income guidelines for a two-person household. CAL. WATER CODE § 189.5(f)(2).
[49] *Id.*
[50] CAL. WATER CODE § 189.5(b)(3).
[51] *Id.*
[52] CAL. WATER CODE § 189.5(d).
[53] *Id.*
[54] CAL. WATER CODE § 189.5(c); *see also* CAL. PUB. UTIL. CODE § 739.8.

include Cal Water's Low-Income Rate Assistance Program[55] and California American Water's Assistance for Low-Income Customers Program.[56]

B. AB 685: ESTABLISHING CALIFORNIA'S HUMAN RIGHT TO WATER POLICY

As the SWRCB's February 2016 resolution on the human right to water acknowledges,[57] AB 401 must be viewed through the lens of Assembly Bill 685, which declares that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."[58] AB 685 also requires state agencies—including the SWRCB—to consider California's human right to water policy "when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and grant criteria are pertinent to the uses of water…"[59]

This duty requires that agencies take a hard look at a reasonable range of alternatives to policies or regulations, and that the agencies give preference to those policies and regulations that are consistent with and promote the state's human right to water policy.[60] Above all, the state's commitment to the human right to water compels the prompt development of policies and programs designed to fulfill the right and prevent violations. In recognizing its obligations under AB 685, the SWRCB has acknowledged this call to action, "[a]dopt[ing] the human right to water as a core value and adopt[ing] the realization of the human right to water as a top priority for the Water Boards."[61]

In this case, that means creating an inclusive, broad program designed to ensure that all Californians have access to affordable water for basic human needs and will not be deprived of such access for inability to pay. Accordingly, AB 401 should be seen as one component of the state's implementation of the human right to water. The research, analysis, and recommendations contained in this report adhere to this framework.

C. THE BOARD SHOULD DEFINE WATER "AFFORDABILITY" UNDER AB 401 AND AB 685

Neither AB 401 nor AB 685 defines water affordability, but for the program to achieve affordability, the Board must first adopt a definition that meets the human right to water. The United Nations has determined that water is generally considered unaffordable if paying for water jeopardizes a household's access to other basic necessities, including housing, medicine,

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[55] *Residential Single-Family Low Income Rate Assistance (LIRA) Program Application*, CAL WATER, https://www.calwater.com/docs/lira/2017-01_LIRA_app_1_-_residential_single-family.pdf ("Qualifying customers receive a fixed monthly discount equal to 50% of the 5/8 x 3/4-inch meter service charge.").
[56] *Low Income Program*, CALIFORNIA AMERICAN WATER, https://amwater.com/caaw/customer-service-billing/low-income-program.
[57] SWRCB Human Right to Water Resolution, *supra* note 1, at p. 3, recital 12.
[58] CAL. WATER CODE § 106.3(a).
[59] CAL. WATER CODE § 106.3(b).
[60] *The Human Right to Water Bill in California: An Implementation Framework for State Agencies* (UC Berkeley International Human Rights Law Clinic, May 2013); *see also* Roger Colton, "State Legislative Steps to Implement the Human Right to Water in California," March 2015 (on file with authors).
[61] SWRCB Human Right to Water Resolution, *supra* note 1 at p. 3, resolution 1.

electricity, or transportation.[62] Under this standard, the affordability component of the human right to water "requires that direct and indirect costs related to water and sanitation should not prevent a person from accessing safe drinking water and should not compromise his or her ability to enjoy other rights, such as the right to food, housing, health and education."[63] This standard does not require free water and sanitation but rather provides a relative measure of affordability that ties the allowable cost of water service to individual income and other necessary expenses.[64] However, as the UN Special Rapporteur on the human right to safe drinking water and sanitation noted in his recent affordability report, "[w]here people face an inability to pay, the human rights framework indeed requires free services that must be financed through sources other than user contributions."[65] This is because "human rights require ensuring affordable service provision for all, regardless of ability to pay[.]"[66] Accordingly, "[d]isconnection of services due to an inability to pay for the service is a retrogressive measure and constitutes a violation of the human rights to water and sanitation."[67]

In an attempt to operationalize this standard, the international community "recognizes that total expenditure for water and sewer service [covering basic human and household needs] combined should not exceed 2-5 percent of *household* income."[68] To best meet the state's commitment to the human right to water under AB 685, California's program should aim to meet this standard.[69]

The UN's focus on household income, as opposed to *median* household income ("MHI"), is noteworthy. While the EPA uses 2-2.5 percent of MHI[70] as an affordability threshold for water

[62] Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Report to the Human Rights Council on Affordability of water and sanitation services, ¶ 25, U.N. Doc. A/HRC/30/39 (Aug. 5, 2015), available at http://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/30/39 [hereinafter UN Water Rapporteur Affordability Report].

[63] UN High Comm'r for Human Rights, Annual Report of the United Nations High Commissioner for Human Rights and Reports of the Office of the United Nations High Commissioner for Human Rights and the Secretary-General: Report of the United Nations High Commissioner for Human Rights on the Scope and Content of the Relevant Human Rights Obligations Related to Equitable Access to Safe Drinking Water and Sanitation Under International Human Rights Instruments, ¶ 28 U.N. Doc. A/HRC/6/3 (Aug. 16, 2007); *see also* UN Committee on Econ., Soc., & Cultural Rights, *Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social, and Cultural Rights: General Comment No. 15 (2002): The Right to Water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)*, para. 12, 29th Sess., 2002, U.N. Doc. E/C.12/2002/11 (Jan. 20, 2003), available at http://www2.ohchr.org/english/issues/water/docs/CESCR_GC_15.pdf [hereinafter CESCR General Comment 15].

[64] CESCR General Comment 15, *supra* note 63, at para. 15; UN Water Rapporteur Affordability Report, *supra* note 62 at ¶¶ 6, 25.

[65] UN Water Rapporteur Affordability Report, *supra* note 62 at ¶ 7.

[66] *Id*. at ¶ 4.

[67] *Id*. at ¶ 33 (citing Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002) (E/C.12/2002/11), para. 44a)).

[68] UUSC Water Affordability Report, *supra* note 9 at p. 6 (noting that there is not a magic number, but 2.5% is a good rule of thumb); Winkler Human Right to Water Book, *supra* note 9 at 138.

[69] While AB 685 also does not define affordability, its language directly reflects the international definition of the human right to water, which indicates that California should look to international water affordability standards when trying to fulfill this aspect of the right. CAL. WATER CODE § 106.3(a) ("It is hereby declared to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.").

[70] For purposes of calculating affordability, this measure typically refers to the median household income for a utility's service area. However, this data is not always readily available, and census block data may be substituted.

and sewer service combined,[71] and the State Board set its affordability threshold for Disadvantaged Community ("DAC")[72] residential water rates at 1.5 percent of MHI,[73] using MHI to assess affordability can obscure low-income households paying an unaffordable water bill. Low-income households often fall below the MHI of a utility's service area; as the National Consumer Law Center's foundational study on water affordability notes, "[w]hat is considered affordable to the median household . . . may drastically differ from what is affordable to a low-income household."[74]

Both a 2014 study by the United States Conference of Mayors[75] and a 2013 study by the Pacific Institute[76] found that MHI masks individual burdens, particularly for low-income households in relatively higher income communities. For example, the U.S. Conference of Mayors found that in Glendora, CA the MHI is $74,619, and the average yearly water bill is $967.50.[77] This water bill is 1.3 percent of the Glendora MHI and well within the affordability threshold. However, more than 20 percent of Glendora residents who make below $35,000 are paying 2.5 percent or more of their income on water.[78] The U.S. Conference of Mayors and Pacific Institute studies found the same disparity in other areas of California, such as the Sacramento Metropolitan Area and the Tulare Lake Basin.[79] MHI also does not capture a household's varying economic burdens on either a city-wide (e.g., particularly high rents in an area) or a household (e.g., medical needs) level.[80] In line with these findings, the City of Philadelphia recently adopted an income-based water rate assistance program that caps each

[71] The 2.5% EPA affordability threshold derives from the Safe Drinking Water Act's requirement that the EPA assess the ability of small drinking water systems to affordably implement new drinking water quality standards. However, when it assessed the affordability of water and wastewater service under the Safe Drinking Water Act in 1993, the EPA used a 2% affordability threshold. *See* Environmental Protection Agency (1993). Affordability of the 1986 Amendments to Community Water Systems, U.S. Environmental Protection Agency: Washington D.C.

[72] "Disadvantaged Community" or "DAC" means the entire service area of a Community Water System (CWS) in which the median household income (MHI) is less than 80 percent of the statewide MHI."California State Water Resources Control Board, 2016 California Drinking Water State Revolving Fund Intended Use Plan, June 21, 2016, p. 29, available at http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2016/final_dwsrf_iup_report_062116_with_cover.pdf.

[73] *Id*. at pp. 33-34, 36. *Cf*. California State Water Resources Control Board, Clean Water State Revolving Fund Intended Use Plan (State Fiscal Year 2017-2018), June 20, 2017, pp. 42-43, available at http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/cwsrf_iup_sfy2017_18_final.pdf (setting affordability threshold at no more than 4% MHI for households between 80 and 100 percent of the statewide MHI, but maintaining the 1.5% MHI affordability threshold for DACs).

[74] *Review and Recommendations for Implementing Water and Wastewater Affordability Programs in the United States*, NATIONAL CONSUMER LAW CENTER 7 (March 2014), available at http://www.nclc.org/images/pdf/pr-reports/report-water-affordability.pdf [hereinafter NCLC Water Affordability Report].

[75] UNITED STATES CONFERENCE OF MAYORS, PUBLIC WATER COST PER HOUSEHOLD: ASSESSING FINANCIAL IMPACTS OF EPA AFFORDABILITY CRITERIA IN CALIFORNIA CITIES 27 (2014), available at https://www.cacities.org/Resources-Documents/Member-Engagement/Regional-Divisions/Los-Angeles/US-Conf-of-Mayors-Water-Cost-Per-Household-Report.aspx [hereinafter U.S. Conference of Mayors Water Cost Report].

[76] JULIET CHRISTIAN-SMITH ET. AL., ASSESSING WATER AFFORDABILITY: A PILOT STUDY OF TWO REGIONS OF CALIFORNIA, PACIFIC INSTITUTE 10, 13 (2013), available at http://pacinst.org/wp-content/uploads/2013/08/assessing-water-affordability.pdf [hereinafter Pacific Institute Water Affordability Report].

[77] U.S. Conference of Mayors Water Cost Report, *supra* note 75 at 27.

[78] *Id*.

[79] Pacific Institute Water Affordability Report, *supra* note 76 at 10, 13.

[80] *See* U.S. CONFERENCE OF MAYORS, AMERICAN WATER WORKS ASSOCIATION & WATER ENVIRONMENT FEDERATION, AFFORDABILITY ASSESSMENT TOOL FOR FEDERAL WATER MANDATES 5 (2013).

household's water bill (which includes water, wastewater, and stormwater charges) at between 2-4 percent of household income.[81]

These studies favor defining affordability as a percentage of household income rather than MHI, although even this granular a measure does not consider household size and may still fail to account for variations in the cost of living and other economic strains, such as high medical costs or the need to purchase replacement water in systems experiencing water contamination.[82] Considering that many low-income California households live in conditions of overcrowding, face higher-than-average cost of living (particularly for housing) or live with contaminated tap water, it would be prudent to set the affordability standard for this program no higher than the middle of the generally agreed upon range of 2-5 percent of household income for water and wastewater service combined. Accordingly, we recommend that the SWRCB adopt a definition of water affordability as a water bill for basic human and household needs of no more than 2.5 percent of household income.[83]

D. THE BOARD SHOULD PROPOSE A PROGRAM DESIGNED TO ACHIEVE "AFFORDABILITY," NOT "ASSISTANCE"

Financial "assistance" is fundamentally different from "affordability," and the human right to water requires affordability. An assistance program generally offers an across-the-board bill discount to income-qualified customers (like the CARE program[84]), while an affordability program delivers benefits "needed to bring low-income bills into an affordable range."[85] The SWRCB's current proposal to provide a percentage discount on the water bills of enrolled households would create an assistance program rather than an affordability program because this flat discount would not be calculated to ensure that each enrolled household pays no more than the 2.5 percent affordability cutoff for water. Accordingly, although it represents important progress towards affordability, it falls short of effectuating the human right to water as envisioned by AB 685. For this reason, we recommend that the Board consider additional scenarios calculated to achieve affordability rather than merely assistance.[86]

This distinction between assistance and affordability is a practical one, both for low-income households and for utilities. Under an affordability program, low-income households

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[81] Tricia L. Nadolny, The Inquirer Daily News, "For low-income residents, Phialdelphia unveiling income-based water bills," June 19, 2017, available at http://www.philly.com/philly/news/politics/city/for-low-income-residents-philadelphia-unveiling-income-based-water-bills-20170620.html [hereinafter Nadolny Philadelphia Water Affordability Program Article].

[82] Pacific Institute Water Affordability Report, *supra* note 76 at 15-16.

[83] However, we urge the Board to work towards establishment of a standard that sets the affordable cost of a combined water and sewer service bill at no more than 2.5% of household income. Accordingly, we support the suggestion by Pacific Institute that the affordability threshold for water alone stay at 1.5% of income (whether individual household income, median household income, or the Federal Poverty Line).

[84] CARE, or the California Alternate Rates for Energy, is a low-income rate assistance program for energy that provides a uniform percentage discount on the electric and natural gas bills of enrolled low-income households. See California Public Utility Commission, CARE/FERA Programs (Discounts on energy bills for income qualified households), available at http://www.cpuc.ca.gov/General.aspx?id=976.

[85] Roger Colton, A WATER AFFORDABILITY PROGRAM FOR THE DETROIT WATER AND SEWAGE DEPARTMENT (DWSD) 7 (Jan. 2005), available at http://www.fsconline.com/downloads/Papers/2005%2001%20Detroit%20Water.pdf [hereinafter Colton Detroit Water Affordability Plan].

[86] While AB 401 uses the term "assistance," nothing in the bill prevents the creation of an affordability program.

should be able to pay their bills, whereas under an assistance program many households will continue to fall behind, face water service disconnections, and accumulate debt. For utilities, this is the difference between a predictable revenue stream where customers pay their bills and an unpredictable revenue stream burdened by the cost not only of unpaid bills but of carrying out water service disconnections and bearing the bad debt of accumulated arrearages of households that fall behind.[87]

At the state level, this difference could significantly impact the program's success, as well as the efficient distribution of program funds. A program that calculates the benefits to achieve affordability will distribute program funds more effectively and efficiently than an assistance program. Assistance programs, based on percentage discounts, may overpay certain households (bringing their bill well below the affordability threshold) and underpay others (leaving their bill above the threshold). Likewise, households in low-income communities with high water rates, like Lucerne, will find that the proposed uniform percentage discount results in a water bill that is still more than twice the state's affordability threshold of 1.5 percent MHI.[88]

Not only would a uniform percentage discount fail to respond to the wide variations in water rates experienced by low-income households across the state, but, as outlined in the following subsection, households face many off-bill economic burdens to water service that would not be addressed by an assistance program. California's low-income households face many challenges in affording basic services including water, such as the decline in real wages and increases in cost of living, healthcare costs, and unemployment. At the same time, we know that low-income households are more likely than their wealthier counterparts to be living with contaminated drinking water and therefore paying twice for water (once for tap water they cannot drink and again for safer replacement water or water filters).[89] They are also more likely to shoulder the added costs of water lost to leaky pipes or inefficient fixtures a low-income household cannot afford to repair or replace. And an assistance program may unduly limit its focus to conventional utility ratepayers, thereby failing to examine the unique water affordability challenges confronting low-income Californians who are not utility customers, such as renters, mobile home residents, and the homeless.

Perhaps the most serious concern, however, is the dramatic increase in water rates across the state as real wages stagnate.[90] Water utilities recognize that rates are likely to increase as they

[87] See, e.g. Roger D. Colton, "Water Affordability in Philadelphia: Comparing the Tiered Discount and Percentage of Income-Based Bill Affordability Proposals," October 2015, at pp. 7-8 (laying out the hidden costs to utility of continuing to charge unaffordable rates), available at http://affordablewaternow.org/wp-content/uploads/2017/02/RDC-Phildelphia-Water-Affordability-Report-FINAL.pdf.

[88] See estimated MHI and average bill data for Lucerne provided in California Assembly Committee on Utilities and Commerce & Assembly Committee on Aging and Long-Term Care, Briefing Paper for Oversight Hearing on Water Rate Affordability, Feb. 3, 2014, p. 3, available at http://autl.assembly.ca.gov/sites/autl.assembly.ca.gov/files/2014_01_30_water_rate_affordability_final.pdf [hereinafter California Assembly Briefing Paper on Water Rate Affordability]. Note that this report uses 2014 data; because rates have likely increased since then, the shortfall may be even greater.

[89] Carolina Balazs et al., *Social Disparities in Nitrate-Contaminated Drinking Water in California's San Joaquin Valley*, 119 ENVTL. HEALTH PERSP. 1272 (2011), 1275 [right column], available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230390/pdf/ehp.1002878.pdf; see also Carolina Balazs et al., *The Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposure*, Am. J. Public Health 104(4): 603-611 (April 2014), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025716/pdf/AJPH.2013.301664.pdf.

[90] California Assembly Briefing Paper on Water Rate Affordability, *supra* note 88 at p. 1.

grapple with the rising costs imposed by the need to replace deteriorating infrastructure, respond to the effects of climate change, and plan for future droughts.[91] An assistance program, like that proposed in the four scenarios, would be unable to respond to these rising costs; if the program provides a 20 percent discount on a low-income household's bill and rates rise by 20 percent, that household will have a bill that is no more affordable than it was prior to the program's inception. On the other hand, by tailoring assistance to ensure that participants receive a bill they can afford, an affordability program would be able to provide a meaningful benefit even as water rates increase.

Designing a program to bring bills under 2.5 percent of household income can be challenging, but is not impossible. There are a few examples of good water affordability programs. One option is to ensure affordability by limiting the monthly water bill to an affordable percentage of household income.[92] Philadelphia has recently adopted this model, as discussed more below.[93] Another good option is to create a statewide lifeline water rate. We recommend that the Board propose an *affordability* program and accordingly consider a program design that ensures each low-income household falls within the affordability threshold.

E. Summary of Recommendations on Foundations for a California Water Affordability Program

- The SWRCB should adopt a definition of water affordability in line with the human right to water. We suggest an affordability threshold of a combined water and sewer service bill for basic human and household needs of no more than 2.5 percent of household income.
- The SWRCB should propose an affordability program rather than an assistance program. To do so, the Board should consider additional scenarios calculated to ensure all enrolled households fall within the affordability threshold.

[91] Kristina Donnelly and Dr. Juliet Christian-Smith, *An Overview of the "New Normal" and Water Rate Basics*, Pacific Institute pp. 2-6 (June 2013) [hereinafter Pacific Institute Water Rate Basics Report]; *see, e.g.*, Katie Porter and Cindy Paulson, California Urban Water Agencies, Comments on Statewide Low-Income Rate Assistance Program, Dec. 14, 2016, p. 1, available at http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/comments/cindypaulsonkatieporter12142016.pdf.

[92] Telephone Interview with Alice Jennings, National Coordinator of the National Coalition for Legislation on Affordable Water, (March 3, 2017); Colton Detroit Water Affordability Plan, *supra* note 85 at 7.

[93] City of Philadelphia, Press Release, "Philadelphia Launches New, Income-Based, Tiered Assistance Program," June 20, 2017, available at https://beta.phila.gov/press-releases/mayor/philadelphia-launches-new-income-based-tiered-assistance-program/; Telephone Interview with Robert Ballenger, Public Advocate, Community Legal Services, Philadelphia (March 2, 2017) [hereinafter Robert Ballenger Interview].

III. ADDRESSING WATER UNAFFORDABILITY IN CALIFORNIA

Many Californians can afford water. But for a growing segment of low-income consumers, water bills (or total household expenditure for drinking water) represent more than 2.5 percent of income. In many water systems, rates have shot up in the past ten years. For example, a 2014 California Assembly briefing paper found that investor-owned water utilities have asked the California Public Utilities Commission (CPUC) to approve rate increases of 7-45 percent, and "[i]n some cases, water bills have spiked over 300% since 2006."[94] The East Bay Municipal Utility District (EBMUD), one of the largest public water utilities in the state, recently approved a rate increase of nearly 20 percent over the next two years.[95] Combined with the high cost of living across much of the state, California's low-income households are already making impossible choices between paying for basic needs like housing, food, healthcare, and water. Any statewide water affordability program needs to take into account the specific ways in which these households experience water unaffordability as well as those drivers of unaffordability unique to California's social, economic, and environmental realities.

California law requires an affordability analysis in the state water plan, recognizing that "[t]hroughout California, hundreds of thousands of low-income residents to not have access to potable drinking water and wastewater services without paying cost-prohibitive rates [. . . and] reliable and potable drinking water is not affordable or accessible for many Californians."[96] Very low-income households and households in areas with higher water rates due to water system costs have experienced some of the most significant increases in unaffordability. These areas, typically categorized as Disadvantaged Communities (DACs), are often rural, with small water systems that lack the economy of scale enjoyed by systems with larger rate-payer bases, though rates in urban areas with deteriorating infrastructure have also spiked. Although we lack statewide data about water service disconnections, available data from one large water utility district with safe water and a substantial ratepayer base indicated that 75 percent of 2016 shutoffs took place in low-income areas,[97] showing that even without exacerbating factors, many low-income households struggle to afford their water bills. To ensure that the Board has an accurate picture of water affordability, it should require all public water systems to report data about water, wastewater,[98] and stormwater charges, as well as information about service disconnections.

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[94] California Assembly Briefing Paper on Water Rate Affordability, *supra* note 88 at p. 1.

[95] East Bay Municipal Utility District, Budget and Rates (reflecting rate increases for fiscal years 2018-2019 approved by the Board of Directors on July 11, 2017), available at http://www.ebmud.com/customers/billing-questions/budget-and-rates/.

[96] CAL. WATER CODE § 10004.8.

[97] East Bay Municipal Utility District, Memorandum to Board of Directors re: Customer Assistance Programs Update (November 3, 2016) (on file with authors). EBMUD carried out 12,167 service disconnections in fiscal year 2016, but 2,190 of these accounts had more than one shutoff.

[98] We strongly encourage the Board to consider whether it has sufficient data to assess the funding needed to address wastewater affordability in its proposed program. If including wastewater is not possible in the Board's initial program proposal, we strongly encourage the Board to lay the foundations for extending any water affordability program to cover wastewater and other related charges in the near future. Accordingly, we suggest that the Board's recommendations to the Legislature include a proposal that the Legislature plan a future evaluation of the affordability program and commit to expanding the program include wastewater costs at that time. In the interim, the Legislature should modify the Health and Safety Code to empower the Board to collect data about wastewater services and associated costs.

A. THE PROGRAM SHOULD ADDRESS ENVIRONMENTAL INJUSTICE AS A DRIVER OF UNAFFORDABILITY

Beyond the more straightforward issues of poverty, deteriorating infrastructure, and diseconomies of scale, low-income Californians may also be unable to afford their water bill as a result of environmental injustice. The most prominent example of the disproportionate impact of water unaffordability on communities of color and marginalized groups can be found in small, disadvantaged unincorporated communities that lack safe drinking water. There, residents frequently pay not only a high water bill for water they cannot drink but must also purchase safe alternative water (*e.g.*, bottled water). A recent water affordability study by the Pacific Institute noted that "replacement water costs . . . to ensure safe drinking water supplies can dramatically increase unaffordability."[99] The study goes on to note that because "current laws do not include these additional replacement costs in assessments of water affordability[,] . . . agencies charged with implementing a human right to water should consider using a measure that correctly assesses those members of the population who are most vulnerable."[100] When these drinking water systems attempt to resolve the contamination issue by obtaining financial assistance to construct a treatment facility, the resulting debt burden and high operations and maintenance costs typically drive up the water bill for residents. The ensuing water bill spikes may result in the forced closure of the treatment facility, as occurred in Lanare.[101] As explored later in this report, to address these realities, the program should also include or be complemented by strengthened efforts to prevent and mitigate drinking water contamination and to provide operations and maintenance assistance to small water systems struggling with expensive solutions to chronic contamination.

B. THE PROGRAM SHOULD ADDRESS WATER LOSS AS A DRIVER OF UNAFFORDABILITY

Rates can also become unaffordable for low-income consumers because of old and/or leaky infrastructure on their property. Generally, the water district manages water infrastructure up to the meter, but the owner is responsible for any pipes or fixtures from the meter to the faucet. When these pipes and fixtures age, they begin to leak. Additionally, older fixtures are much less water efficient. These leaks and inefficiencies drive up water bills, yet low-income households are particularly unlikely to be able to address these drivers of unaffordability without assistance. For this reason, it is critical that an affordability program include a conservation and efficiency component to address the affordability impacts of wasted water. Our recommendations on this point, discussed further in Section IV.E, will assist ratepayers, promote water conservation as a California way of life, and reduce the financial burden on the state into the future, as explicitly considered by the Legislature in AB 401.[102]

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[99] Pacific Institute Water Affordability Report, *supra* note 76 at 15.
[100] *Id*.
[101] *See* David Bacon, New America Media. "Dying for a Glass of Clean Water in CA's San Joaquin Valley," August 22, 2011, available at http://newamericamedia.org/2011/08/dying-for-a-glass-of-clean-water-in-cas-san-joaquin-valley.php.
[102] CAL. WATER CODE § 189.5(d) ("The plan may also include recommendations for other cost-effective methods of offering assistance to low-income water customers besides rate assistance, including billing alternatives, *installation of water conservation devices, and leak repair.*" (emphasis added)).

C. To Provide a Comprehensive Solution, the Board Should Address Unaffordability at the Household and the Community Level

Finally, unaffordability arises on both a household and a community scale, and these two scenarios require different, but complementary, policy responses. The first scenario, household-level or micro-unaffordability, requires interventions designed to make it possible for that household to afford a basic amount of water, including a bill discount or subsidy, assistance with household-level conservation measures and leak repair, and protection against water service disconnections for inability to pay. This level of policy intervention is discussed in the following section of the report. The other scenario, community-level or macro-unaffordability, means the entire water system faces structural barriers to the provision of affordable water, such as chronic contamination or significant infrastructure deficits, or a customer base of primarily low-income households. Macro-unaffordability requires interventions to promote delivery of safe water at an affordable price, such as enhanced efforts to prevent or mitigate drinking water contamination, funding for capital improvements, operations and management costs, and technical assistance. These approaches are discussed in the latter sections of this report, and we encourage the Board to develop an integrated response to both forms of unaffordability through its broader Affordable and Safe Drinking Water Initiative.[103]

D. The Program Should Be Complemented by Targeted Infrastructure Investments

To best support the implementation of a statewide water affordability program, the state will also need to support long-term investment in infrastructure. Across the United States, a lack of investment in water infrastructure is a major factor in the dramatic rise in household water costs. Through water and sewer rates, consumers pay 90 percent of the cost to maintain and operate current water and sanitation infrastructure in the U.S.[104] To keep rates low, utilities have deferred investment in infrastructure maintenance and upgrades, but now this bill is coming due. A recent Georgetown Law report on water affordability in the U.S. found that "low-income customers are hit hardest[]" by water rate increases prompted by utilities shifting the costs of infrastructure maintenance and improvement onto consumers.[105]

California is subject to this worrisome trend.[106] While the useful life of a water pipe is between 50-100 years, many pipes in the state today are nearly 75 years old.[107] Not surprisingly,

[103] California State Water Resources Control Board, Fact Sheet: Affordable & Safe Drinking Water Initiative, (Feb. 8, 2017), available at http://www.waterboards.ca.gov/water_issues/programs/hr2w/docs/data/fs020817_asdw_act.pdf [hereinafter SWRCB Affordable & Safe Drinking Water Initiative Fact Sheet].

[104] Brett Walton, Prices of Water 2015: Up 6 Percent in Major U.S. Cities 41 Percent Rise Since 2010, Circle of Blue (April 22, 2015), available at http://www.circleofblue.org/waternews/2015/world.

[105] Georgetown Law Human Rights Institute, Tapped Out: Threats to the Human Right to Water in the Urban United States (April 2013), p. 22, available at http://www.law.georgetown.edu/academics/centers-institutes/human-rights-institute/upload/HumanRightsFinal2013.pdf [hereinafter Tapped Out Georgetown Report].

[106] US Environmental Protection Agency, Drinking Water and Infrastructure Needs Survey and Assessment 19 (2011), available at https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf (finding that California has the largest water infrastructure needs).

systems with older pipes have more leaks and higher water loss ratios.[108] Most western water systems average a loss ratio of 10 percent.[109] Although the loss occurs before it reaches the customer meter, the utility must recoup the cost of these losses across the ratepayer base in the form of higher base rates. Other ways to save money include helping utilities update old meter technologies that cannot register low flow leaks. Support for targeted infrastructure investment is consistent with AB 401's request that the Board consider long term program sustainability and cost savings, because it should mitigate the burden on low-income households (and thus the affordability program) imposed by soaring infrastructure costs and massive leak repairs.[110] For further exploration of this issue, see Appendix IV—Looking to the Future: Supporting Infrastructure Improvements to Control Costs.

E. Summary of Recommendations to Address Water Unaffordability in California

- The program should be tailored to address the unique drivers of unaffordability experienced by low-income Californians. In addition to poverty in the face of high cost of living and rising water bills, these include environmental injustice (as contamination drives up water costs), water loss caused by inability to afford leak repair or inefficient fixture upgrades, and inadequate infrastructure investment.
- The program should also include or be complemented by strengthened efforts to prevent and mitigate drinking water contamination and to provide operations and maintenance assistance to small water systems struggling with expensive solutions to chronic contamination.
- The program should include a conservation and efficiency component to address the affordability impacts of wasted water.
- The program should consider the importance of working with—and possibility providing support—to utilities and other agencies to upgrade California's aging water infrastructure and to update sewer-sanitary systems, both of which are poised to significantly increase water costs across the state.

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[107] Interview with Margo Schueler, Construction/Maintenance Superintendent, EBMUD, in Berkeley, CA (Feb. 13, 2017) [hereinafter Margo Schueler Interview].

[108] See, *e.g.*, Ben Poston and Matt Stevens, *Los Angeles Times* "L.A.'s aging water pipes; a $1-billion dilemma," Feb. 16, 2015, available at http://graphics.latimes.com/la-aging-water-infrastructure/.

[109] Margo Schueler Interview, *supra* note 107 (The water loss ratio is the amount of water that the system loses from the time the water is treated to when it arrives at the customer meter).

[110] These infrastructure issues were identified from stakeholder interviews.

IV. SUGGESTED PROGRAM DESIGN: THINKING BEYOND THE BILL DISCOUNT TO MAXIMIZE AFFORDABILITY

This section provides our analysis and recommendations for the design of a statewide low-income water affordability program, focusing on those measures designed to achieve household-level affordability in the manner most compatible with the human right to water. These recommendations contemplate not only a program that provides some discount or subsidy to reduce an enrollee's water bill, similar to that proposed by the Board's four scenarios, but also minimum protections aimed at assuring access to a basic amount of water even if bills remain unaffordable. We suggest ways to design the discount to achieve affordability, such as the income-based bill calculation pioneered in Philadelphia's new water affordability program. Finally, we encourage inclusion of mechanisms, such as household-level conservation assistance, that are responsive to AB 401's call to consider "other cost-effective measures of offering assistance."[111]

In addition to encouraging the Board to develop the most inclusive bill reduction program possible, this section also proposes a different approach to achieving statewide water affordability: the creation of a state-mandated lifeline rate for a basic amount of water. This alternative approach suggests that the Board consider first what utilities can do to achieve affordability for a basic amount of water and then to develop a program designed to address what remains once utilities reach their legal and budgetary limits. This is not to suggest that the burden should rest upon utilities to assure affordability; rather it is an invitation to explore whether a program designed in this way would more effectively and efficiently reach a higher number of low-income individuals than a program designed around a bill discount.[112] Many utilities, particularly larger ones, remain frustrated with the legal and financial constraints placed upon their ability to offer low-income assistance that meaningfully supports their customers. Accordingly, we offer legal analysis of the available options for the creation of a statewide lifeline rate that comports with the limitations of Propositions 218 and 26. However, in recognition of the fact that many utilities may prefer a more voluntary approach, the next section of this report also offers a detailed discussion of ways that utilities can use their existing resources to craft more affordable rates within the legal constraints of Proposition 218.

The recommendations contained within this section are aimed at the creation of an inclusive program that would reach most ordinarily situated water utility customers in California. Subsequent sections of the report recognize that additional measures will likely be necessary to reach populations that are likely to be excluded from a straightforward bill discount program.[113] This section should thus be viewed as suggesting the creation of a program that can serve as a base model to be supplemented in order to maximize the number of low-income individuals it can reach.

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[111] CAL. WATER CODE § 189.5(d) ("The plan may also include recommendations for other cost-effective methods of offering assistance to low-income water customers besides rate assistance, including billing alternatives, *installation of water conservation devices, and leak repair.*" (emphasis added)).

[112] Below, we offer suggestions on administering a statewide lifeline rate to avoid placing the burden on utilities.

[113] Even an inclusive program will not cover everyone without additional mechanisms to reach unmetered groups including renters, mobile home residents, private well owners, state smalls, homeless populations, and others. Later sections of this report provide analysis and recommendations for different mechanisms to assure inclusion of these groups in the program.

A. PROGRAM FEATURES THAT COMPORT WITH THE HUMAN RIGHT TO WATER

A statewide water affordability program that comports with the human right to water will include shutoff protections and measures to assure access to a sufficient amount of water for daily human use; flexible eligibility criteria; and easy enrollment procedures and flexibility for changed circumstances. This section provides an analysis and recommendations of how these core program features can best be tailored to meet the unique water affordability needs of California's low-income households and implement the state's commitment to the human right to water.

1. Any Water Affordability Program Must Include Shutoff Protections

The program should aim to ensure that every household can access the amount of water necessary for basic daily needs. One critical way for the program to guarantee water access for basic daily human needs, such as drinking and sanitation, is to provide protections against water shutoffs for inability to pay. Such protections are the floor for any water affordability program, because shutoffs for inability to pay are fundamentally incompatible with the human right to water.[114] Even with a rate-assistance program, some low-income California households will face water shutoffs, with devastating consequences, and utilities will bear the cost of lost revenue and bad debt. Accordingly, we suggest that the Board recommend a legislative ban on water shutoffs for inability to pay and craft it in such a way that utilities can recoup lost revenue without running afoul of Proposition 218. This prohibition should also limit or waive fines for late payment, reconnections, and turning on a connection without permission (sometimes called "water theft") for low-income households. Alternatively, or additionally, the Board should incorporate shutoff protections into the fabric of the rate assistance program.

a. Water Shutoffs Cause Serious Harm to Low-Income Households

Water service disconnections or shutoffs place the life and health of the household at risk and may pose particular hazards for vulnerable groups, such as children, the elderly, or the sick. Water shutoffs for inability to pay not only violate the human right to water, but they also pose a threat to individual and public health, family unity, and human dignity.[115] Just as continuous access to clean drinking water is integral to physical wellbeing, its absence can cause the spread of disease.[116] These legitimate health concerns may prompt child welfare agencies to remove children from homes experiencing a shutoff.[117] Alternatively, parents may voluntarily send their

[114] UN Water Rapporteur Affordability Report, *supra* note 62 at ¶ 33 (citing Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002) (E/C.12/2002/11), para. 44a)).
[115] *See* Tapped Out Georgetown Report, *supra* note 105 at pp. 32-31; UN Water Rapporteur Affordability Report, *supra* note 62 at ¶ 33 (citing Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002) (E/C.12/2002/11), para. 44a)).
[116] *See Water & Nutrition*, CENTERS FOR DISEASE AND CONTROL PREVENTION, https://www.cdc.gov/healthywater/drinking/nutrition/.
[117] *See* CA WELF. & INST. CODE § 300 (explaining that a child may be removed from his or her family's household if his or her parents fail to provide adequate shelter); *Safety and Risk Assessment*, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, HTTPS://WWW.CHILDWELFARE.GOV/TOPICS/SYSTEMWIDE/ASSESSMENT/FAMILY-ASSESS/SAFETY/ ("A safety assessment is the systematic collection of information on threatening family conditions and current, significant, and clearly observable threats to the safety of the child or youth.").

children to live with people who can temporarily provide adequate housing.[118] At minimum, water shutoffs cause dignitary harm because no person should be told that his or her household is unworthy of water—a natural resource essential to life and the fulfillment of other human rights—due to inability[119] to pay.[120] Utilities also suffer adverse consequences from shutoffs, including the cost of carrying out the shutoff, the lost revenue from an unpaid account, and the reputational harm of depriving a household of the basic necessity of running water.

Even for utilities with high-quality water, a large ratepayer base, and low-income assistance programs, affordability remains out of reach for many low-income households. The state does not collect information on water service disconnections, but East Bay Municipal Utility District (EBMUD) provides a useful illustration of current issues. EBMUD is one of the larger water districts in California, and it offers one of the most generous customer assistance programs (CAPs) in the state. Although approximately 77,000 low-income households in its service area are eligible for its CAP, only 6,000 are enrolled, and the utility lacks sufficient Proposition 218 compliant funding to expand enrollment much further.[121] At the same time, EBMUD shut off service to at least 9,000 residential accounts in 2016.[122] Of the households facing shutoffs, over 75 percent were located in low-income areas, and only 3 percent were enrolled in the utility's assistance program.[123] Local advocates report that these shut offs had devastating consequences for low-income households and that utility penalties and payment plans set the cost of reestablishing service out of reach for many.[124]

b. Recommendations for Integrating Shutoff Protections into the Program

To avoid these consequences and ensure access to a basic amount of water, we recommend that the Board's proposal include a legislative ban on water shutoffs for inability to pay and a program subsidy to water utilities to compensate them for some portion of the anticipated cost of being unable to disconnect service to customers who cannot pay. The ban should also limit fines for late payment, reconnections, and turning on a connection without permission (sometimes called "water theft") for low-income households.

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[118] *See* Tapped Out Georgetown Report, *supra* note 105 at pp. 33-34.

[119] Inability to pay is not unwillingness to pay. A customer who is unable to pay should make payments proportional to what she or he can pay.

[120] *See* UN Committee on Econ., Soc., & Cultural Rights, *Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social, and Cultural Rights: General Comment No. 14 (2000): the right to the highest attainable standard of health (art. 12 of the International Covenant on Economic, Social, and Cultural Rights)*, paras. 1-6, 22nd Sess., 2000, U.N. Doc. E/C.12/2000/4 (Aug. 11, 2000), available at http://data.unaids.org/publications/external-documents/ecosoc_cescr-gc14_en.pdf.

[121] East Bay Municipal Utility District, Memorandum to Board of Directors re: Customer Assistance Programs Update, (May 4, 2017) (on file with authors). For public water utilities, Proposition 218 restricts the use of water rate revenue for purposes other than the cost of providing the service, which generally means that utilities must find other revenue sources to fund customer assistance programs. For detailed discussion of the limitations imposed by Proposition 218 on public water utilities, see Section IV.C, *infra*.

[122] East Bay Municipal Utility District, Memorandum to Board of Directors re: Customer Assistance Programs Update (November 3, 2016) (on file with authors). EBMUD carried out 12,167 service disconnections in fiscal year 2016, but 2,190 of these accounts had more than one shut off.

[123] *Id*.

[124] Interview with advocates from the Service Workers Project for Affordable Water and Utilities, July 17, 2017.

Even if the Legislature does not act, the program should protect enrollees from shutoffs and related fines or fees and automatically refer households facing shutoffs into the program. Households enrolled in the program that still face shutoffs for inability to pay should receive a temporarily-increased subsidy, along with conservation assistance and counseling—where appropriate. We further recommend that the program require utilities to apply a minimum set of procedural protections for households that still face shutoffs, including statewide standards for notices and the right to appeal or enter into a reasonable payment plan.

Finally, we recommend that the Board require all public water systems to report data on the number of shutoffs performed each year, including information about the income level, size, demographics, and vulnerability of the household (e.g. the presence of vulnerable groups including children, elderly persons, and persons with disabilities in the household). The existence of shutoffs is an important indicator that the program subsidy is insufficient to achieve affordability. The Board may thus want to build some sort of monitoring element into the program that would allow the Board to return to the Legislature for increased funding if data reveals that low-income households remain vulnerable to shutoffs or, if the state enacts a moratorium on shutoffs, unable to pay even their reduced bill.

A statewide moratorium on water service disconnections for inability to pay may raise concerns of a "free rider" problem and loss of utilities' strongest tool for ensuring that households that can pay will do so. But these concerns are largely inflated. First, shutting off water to a household that cannot pay in the first place will not help a utility recover their money. Indeed, utilities lose money as a result of shutoffs, both because they must spend money to physically shut off an account and because they are losing revenue by charging a household an unaffordable bill. If the state designs the program to ensure households receive an affordable bill and reasonable payment plans when in arrears, utilities will benefit from reduced risks in their revenue stream and savings on shutoff costs, even with a moratorium on shutoffs for inability to pay.

Second, shutting off someone's water because they cannot afford it flagrantly violates the human right to water. Accordingly, there is no legitimate justification for continuing shutoffs for those unable to pay. But the Board can craft the prohibition to head off free-rider objections. As one possibility, the state could assist utilities in installing flow restrictors at all meters so that utilities have the ability to limit water flow to households in arrears. Under these circumstances, the household will still receive enough water to meet basic human needs, but the low flow at the tap will be inconvenient enough that those who can pay will do so. This use of flow restrictors will also limit the amount of revenue a utility will lose as a result of being unable to carry out shutoffs against unpaid accounts.

The Board can also narrowly tailor its proposal to what the human right to water requires: shutoffs for inability to pay. In other words, shut off protections would not apply to bad actors that simply decide not to pay. As discussed above, the United Nations defines water unaffordability in terms of unacceptable tradeoffs between essential services or rights, including housing, medical care, gas, electricity, and food.[125] Because it is difficult to make this calculation on a household-by-household basis, it may be more administratively feasible to adopt the same income threshold for this protection as for program enrollment as a rough proxy for inability to pay. Namely, the shutoff protection could be extended to all households eligible for the

[125] UN Water Rapporteur Affordability Report, *supra* note 62 at ¶ 25.

program—for example, all households under 200 percent of the Federal Poverty Level (FPL), as a presumption of inability to pay at that income level, and households slightly above this threshold should have the ability to petition for the protection to apply to them under specific circumstances, such as unusually high housing costs, high medical bills, or other factors that would make water less affordable relative to other basic needs.

c. Water Shutoff Protections Compatible with Proposition 218

Utilities will lose some revenue if the state enacts a prohibition on water service disconnections and related fees for households that cannot pay. This lost revenue—even reduced by the cost-savings from getting rid of disconnection costs—could present a Proposition 218 problem.[126] Proposition 218 prohibits public utilities from charging other customers higher rates in order to subsidize those who cannot afford to pay. The state will thus need to craft shutoff protections that allow public utilities to recoup the lost revenue without dipping into their income from other ratepayers (where most, and often all, of their revenue comes from).[127]

There are two ways the state could prohibit shutoffs for inability to pay without placing utilities in danger of either violating Proposition 218 or being unable to meet their bottom line. First, it can enact a legislative ban on water shutoffs for inability to pay[128] and reimburse utilities for the revenue lost as a result of this ban, using the fund that will support the overall affordability program. Because the funding for shutoff protections comes from an outside source (the state)[129] and not from water service fees charged to other users, it would not violate Proposition 218.[130]

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[126] Proposition 218 does not limit fees charged for water shutoffs because such fees are not "property related." Cal. Const., art. XIII D, § 6 (imposing restrictions on "property related" fees); *see Richmond v. Shasta Cmty. Servs. Dist.*, 32 Cal. 4th 409, 426-428 (2004) (fees for new water connections are not "property related" and therefore not subject to Proposition 218). A water shutoff results from a property owner's nonpayment of water fees, which does not occur automatically "as an incident of property ownership." *See id.* at 427-428. Further, as a practical matter, publicly owned utilities (POUs) cannot predict which parcels will require shutoffs, so they cannot comply with the Proposition 218 notice and approval requirements that apply to property related fees. *Id*. Accordingly, fees for water shutoffs, like fees for new water connections, are not subject to Proposition 218. However, Proposition 218 could interfere with POUs' ability to use other funding sources to recoup costs of shutoffs and Proposition 26 may impose additional limitations.

[127] For a detailed discussion of Proposition 218, see Section IV.C, *infra*.

[128] Proposition 218 does not prohibit POUs from waiving water shutoff fees, both because Proposition 218 does not apply to shutoff fees and because Proposition 218 does not set a floor for fees. *See Morgan v. Imperial Irrigation District*, 223 Cal. App. 4th 892, 923 (2014) ("[N]othing in [Proposition 218] prohibits an agency from charging less than the proportional cost of service.").

[129] Proposition 218 limits the authority of local agencies to impose property-related fees, including water rates. Cal. Const., art. XIII D, § 6; *Richmond*, 32 Cal. 4th at 426. These limits on water rates only apply to POUs and not action by the state. *See* Cal. Const., art. XIII D, § 2(a) (In Article XIII D, "agency" means local government.). However, Proposition 218 does prevent POUs from using fees for water service to cover those water shutoff costs.

[130] POUs may charge low-income customers a reduced fee or no fee for water shutoffs (*Morgan*, 223 Cal. App. 4th at 923), so long as they make up the difference with outside funding, and not by raising water rates for other customers (*Capistrano Taxpayers Assn., Inc. v. City of San Juan Capistrano*, 235 Cal. App. 4th 1493, 1506 (2015)). However, this approach may be problematic for utilities because sources of outside funding are extremely limited. *See* PACIFIC INSTITUTE, WATER RATES: WATER AFFORDABILITY 2, 5 (2013), *available at* http://www.pacinst.org/wp-content/uploads/2013/01/water-rates-affordability.pdf [hereinafter Pacific Institute Water Rates Fact Sheet] (describing limited funding sources for public utility water affordability programs, such as

The second option—though one that may raise some legal questions and on which reasonable minds may differ—is for the state to simply enact a legislative ban on service disconnections for inability to pay part of a utility's cost of service to provide water, and require utilities to build the costs of complying with this state mandate into their costs of service. State law requires the state to reimburse local agencies for the costs of compliance with most state mandates.[131] However, if a local agency has the authority to recover costs through fees, reimbursement is not required.[132] Water utilities have the authority to recoup their costs of service through fees.[133] This means that if the state requires utilities to provide shutoff assistance, utilities could include the costs associated with this assistance in their rate structure as part of the cost of service.[134] In this regard, courts have upheld fees imposed to cover the costs of state-mandates. For example, in *Connell*, the court found that water districts had the authority to levy fees to cover the costs of meeting state-mandated water purity requirements for reclaimed wastewater.[135] Although *Connell* did not consider the impacts of Proposition 218,[136] courts have construed the costs of water service to encompass a broad range of costs necessary to keep a local water system functioning reliably.[137] Thus, a fee that covers state-mandated costs associated with potential loss of connections is justifiable as a general cost of service.

The first option is likely to fare better with utilities, given that they may justifiably be concerned about adding a new fee to their service charges and there is a risk that ratepayers will not approve changes necessary to cover the cost of the mandate.[138] But either option would allow the state to fulfill this aspect of its obligation under the human right to water without forcing utilities into the untenable position of having to choose between violating Proposition 218 or failing to meet their bottom lines. We accordingly recommend that the Board research the potential cost of these two options.

2. To Minimize Shutoffs, the Program Should Provide an Increased Subsidy, Retroactive Enrollment and Debt Forgiveness

To minimize the need for shutoffs, the program should provide (a) an increased subsidy for households struggling with water debt or facing disconnection, (b) retroactive enrollment, and (c) debt forgiveness and payment plans.

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voluntary donations and property leases). As a result, getting outside funding from the state is critical, although the state will need to navigate the restrictions imposed by Proposition 26 in raising these funds.

[131] *See* Cal. Const., art. XIII B, § 6(a).

[132] CAL. GOV'T CODE § 17556(d).

[133] *See Connell v. Superior Court*, 59 Cal. App. 4th 382, 387, 403 (1997). Water Code section 35470 broadly authorizes water districts to charge fees "to defray the ordinary operation or maintenance expenses of the district and for any other lawful district purpose." *Id*. at 401.

[134] However, a more literal interpretation of Proposition 218 may raise questions about this analysis, and there may be further limitations due to the effects of Proposition 26. For these reasons, we encourage the Board to prioritize the first option outlined above.

[135] *Id*. at 403.

[136] *Id*.

[137] *See, e.g.*, *Capistrano*, 235 Cal. App. 4th at 1502 (upholding rate structure that spread costs of different water services because all the customers were "getting water that meets their needs"); *Griffith v. Pajaro Valley Water Management Agency*, 220 Cal. App. 4th 586, 595 (2013) ("water service means more than just supplying water").

[138] *See* Cal. Const., art. XIII D, § 6(a)(2) (if a majority of property owners protest a fee, the agency shall not impose the fee). We further recommend that the Board include a study of the potential additional cost of this program element in its research into AB 401 implementation.

a. Increased Subsidy for Households Struggling to Pay

If an enrolled household is unable to pay even its reduced water bill under the program, we suggest that the program temporarily offer a deeper subsidy, ideally one that allows the household to pay only a nominal fee. Nominal-fee households could be limited to a baseline allowance to cover basic water needs.[139]

b. Retroactive Water Affordability Program Enrollment

Eligible households may not become aware of the water rate assistance program until they have already accumulated debt from unpaid water bills, risking service disconnection and placing financial strain on the water utility. Accordingly, the program should offer retroactive enrollment.[140] This would allow households to demonstrate through income verification documents that they would have met program eligibility requirements at an earlier date and continue to meet those eligibility requirements.[141] Under retroactive enrollment, a household would have its water bill debt reduced to what it would have been if the household enrolled when it first became eligible, with the program compensating the utility for the difference. The household could then pay off its reduced debt or set up a structured payment plan (see below). On the other hand, any credit the household may receive as a result of this calculation would be applied to future water bills. Retroactive enrollment thereby prevents those who should be receiving assistance from losing water service, while reducing the financial strain utilities face when water bills go unpaid.

c. Debt Forgiveness and Payment Plans

When retroactive enrollment alone does not fully relieve water bill debt, the program should provide enrolled households with some form of relief—ideally through a combination of debt forgiveness and reasonable payment plans. For statewide consistency, we recommend that the Board propose a requirement that utilities offer debt forgiveness and payment plans to all low-income customers. Utilities can work with households to develop an individualized debt forgiveness and repayment plan that meets state standards.[142] The requirement should specify that all payment plans offered must "be reasonable based upon each payment-troubled customer's financial and special circumstances[,]" meaning that the "plan should maximize the customer's opportunity and ability to pay as well as the ability to maintain essential services to the household."[143] Through these payment plans, water utilities would reduce a household's debt to an amount proportional to what the household can reasonably pay upfront for continued water

[139] *Cf. Apply for Medical Baseline Allowance*, PG&E, https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/medical-condition-related/medical-baseline-allowance/medical-baseline-allowance.page.
[140] Under the current budget projections for the program, this feature should be economically feasible since the budget includes all potentially eligible Californians regardless of whether they have in fact enrolled.
[141] Medicaid allows up to three months of retroactive enrollment for households that would have been eligible during that time. Medicaid, Eligibility: Effective Date of Coverage, available at https://www.medicaid.gov/medicaid/eligibility/.
[142] NCLC Water Affordability Report, *supra* note 74 at 32.
[143] *Id*. at 2.

services and provide a "structured payment plan for the remaining arrearage and new charges."[144] We also suggest that the Board look closely at Philadelphia's new water affordability program, which offers complete debt forgiveness (including penalties and interest) for enrollees after a two-year period with no missed payments.[145]

d. The Program Should Include Debt and Shutoff Protections for Renters

Renters should not be held accountable for past due water bills. For most renters, water charges are included in the rent bill. It is thus the responsibility of the landlord, as the person who collects and administers the rent bill, to pay the water bill for rented units. Since most rented units are not sub-metered, tenants rely on their landlords to pay the water bill and are thus not directly responsible for past due water bills, particularly if they pay their rent on a timely basis. The program should protect renters from water shutoffs for past due water bills. And, to deter landlords from non-payment, the program should hold them responsible for any past due water bills. If they refuse to pay, utilities should be allowed to refer the debt to collections or place liens on the landlord's property.[146]

3. The Program Should Prioritize Flexible, Inclusive Eligibility Requirements and Enrollment Procedures to Maximize Reach

To ensure that the program comports with the human right to water and includes as many low-income households as possible while minimizing the administrative burden on the state, the Board should prioritize (a) flexible eligibility requirements, (b) simple enrollment procedures, (c) screening for households in arrears, and (d) confidentiality.

a. The Board Should Prioritize Flexibility Eligibility Requirements

To be consistent with the human right to water, the program's eligibility requirements should be broad, flexible, and targeted to the most vulnerable. Overly rigid eligibility requirements exclude those who do not meet the criteria but still need assistance. For example, a family with income above AB 401's proposed 200 percent FPL eligibility threshold, or any other strict income cutoff, might be struggling financially due to significant medical bills and high water usage for kidney dialysis. Inclusive, flexible eligibility requirements account for the household's level of need based on other necessary bills, medical conditions, and other vulnerabilities, such as the presence of young children, elderly persons, or persons with disabilities. Philadelphia's new water affordability program allows households that do not meet the income threshold to qualify if they are experiencing a hardship such as a job loss or domestic violence.[147] In order to minimize the exclusion of households that need assistance but may not

[144] *Id*. at 32.
[145] Nadolny Philadelphia Water Affordability Program Article, *supra* note 81.
[146] EBMUD already employs this practice through its Multi-family lien and property tax collection program, which may be a helpful model. See, e.g., EBMUD Public Comments on AB 401 (Nov. 17, 2016), available at http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/comments/alexander_coate11172016.pdf; EBMUD, Multi-family lien and property tax collection program, available at http://www.ebmud.com/customers/billing-questions/financial-assistance/multi-family-lien-and-property-tax-collection-program/.
[147] Nadolny Philadelphia Water Affordability Program Article, *supra* note 81.

meet the income criteria, we suggest that the program allow for a needs-based variance and provide a qualitative, write-in section on the application form to allow applicants to indicate their need for assistance despite not meeting the income cut-off.

b. Easy Enrollment Facilitates Access and Lowers Administrative Burdens

Easy enrollment procedures maximize program accessibility, which is important because those most in need are often the least able to navigate administrative processes. Simple procedures also minimize the administrative burden on the state of reviewing complex application documentation. Accordingly, we suggest that the program implement the following measures to promote ease of enrollment. First, the program should provide community groups, utilities, and other government agencies with easy-to-understand enrollment forms to be made available to prospective applicants. Second, the program should offer a simple online platform where those with internet access can apply and receive information about the program. Finally, the program should make all materials available in multiple languages, particularly those most commonly spoken in California.

Additionally, we suggest that the program follow the CARE program model by allowing automatic enrollment of applicants already participating in other state or federal assistance programs with similar income requirements.[148] Like the CARE program, the application form could include a checkbox to indicate an applicant's participation in such programs, and applicants who check this box would be automatically enrolled.[149] The Board should recommend that any person enrolled in an income-qualified state or federal public assistance program qualify for enrollment in the program as soon as the administering agency receives that customer's application.

Finally, we suggest that the program follow CARE in applying a presumption of eligibility to all applicants.[150] This practice saves the state from having to individually verify all applications. Instead, to maintain program integrity, the program could require that applicants affirm their eligibility under penalty of perjury and then employ selective audits to confirm

[148] *See* California Public Utilities Commission, CARE Automatic Enrollment, available at http://docs.cpuc.ca.gov/published/final_decision/17665-05.htm.

[149] To qualify for the CARE program, a person must indicate in the CARE program application that they are already enrolled in another federal or state public assistance program; people are not enrolled without their knowledge or consent. *See* California Alternate Rates for Energy, CARE/FERA Programs, http://www.cpuc.ca.gov/General.aspx?id=976;PG&E, Lower your bill with the California Alternate Rates for Energy Program, available at https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/care/care.page?WT.mc_id=Vanity_care; PG&E, CARE/FERA Program Application, available at http://www.pge.com/includes/docs/pdfs/shared/customerservice/brochuresforms/careferaappreseng.pdf.

[150] *See* Assembly Committee on Utilities and Commerce, California Alternate Rates for Energy program, (May 25, 2012), ftp://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_1201-1250/sb_1207_cfa_20120622_161942_asm_comm.html ("Due to the large number of CARE customers, the IOUs conduct post-enrollment verification (PEV) annually for 1-5% of the enrolled CARE customers."). The CARE program's post-enrollment verification process may take place at any time and the customer's services or discounted rates are not affected during the verification period. *See* PG&E, CARE post-enrollment verification, available at https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/care/post-enrollment-verification/care-program-main.page.

eligibility. Likewise, the program should follow CARE in maintaining enrollment for at least two years before requiring renewal.[151]

c. Households in Arrears Should Be Screened for Program Eligibility

To ensure that the program reaches those who most need assistance, we suggest that the program coordinate with utilities to proactively invite those who fall behind on their water bill to be screened for program eligibility. Program outreach efforts should likewise prioritize households in arrears or at risk of disconnection.

d. The Program Should Protect Applicant Confidentiality

To encourage a high level of program enrollment, the program should protect applicant confidentiality. Otherwise eligible households may not enroll in the program if they fear being reported for overcrowding or the immigration status of people in the household. For example, low-income families often temporarily share one apartment, exceeding occupant limits, because each individual family cannot afford housing. To properly support these individuals and encourage them to participate in the program, we suggest that program prohibit the administering agency from reporting these families to their landlord, homeowner's association, or any government agency when the report would be based on overcrowding or the immigration status of the people in the household. The program should widely advertise that it will not share these personal details, so that eligible households will be more likely to apply.

4. Summary of Recommendations for Program Features

- The state should recognize that water shutoffs for inability to pay are incompatible with the human right to water.
- The Board should recommend a statewide legislative ban on water shutoffs for inability to pay, crafted so utilities can recoup lost revenue. It should limit or waive fines for late payment, reconnections, and "water theft" for low-income households. The program should apply these protections to all enrollees.
- The Board should require all public water systems to report annual data on shutoffs, including the income level, size, demographics, and vulnerability of disconnected households.
- The program should provide (1) an increased subsidy for households struggling with water debt or facing disconnection, (2) retroactive enrollment, and (3) debt forgiveness and payment plans.
- The program should include debt and shutoff protections for renters. In lieu of shutoffs on multifamily properties, utilities should instead be allowed to collect debt through liens on the landlord's property.
- The Board should prioritize flexible eligibility requirements and simple enrollment procedures. The program should provide:

[151] PG&E, Renew Your CARE Enrollment, available at https://www.pge.com/en_US/residential/save-energy-money/help-paying-your-bill/longer-term-assistance/care/program-guidelines.page (noting that enrollees must renew every two years, unless they are on a fixed income, in which case the renewal period extends to four years).

- ✓ a needs-based variance for applicants do not meet the income threshold;
- ✓ automatic enrollment for applicants participating in other income-qualified assistance programs;
- ✓ a presumption of eligibility to all applicants; and
- ✓ proactive outreach and eligibility screening for households in arrears.

➢ The program should protect applicant confidentiality.

B. DESIGNING THE PROGRAM BENEFIT TO MAXIMIZE AFFORDABILITY

Under AB 685, "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."[152] The right thus guarantees access to a sufficient amount of water for basic household needs, and any program benefit should reflect this commitment. Unfortunately, our analysis demonstrates that because water rates vary dramatically, neither the uniform percentage discount nor the flat dollar payment that underpin the Board's four proposed scenarios would maximize affordability. These approaches would have limited impact on those who need help most, while failing to use the state's resources in the most cost-effective manner.

Below, we provide an analysis of some of the Board's basic assumptions, as well as recommendations for better ensuring that all Californian's have affordable water for their basic needs, recognizing that this must be balanced with administrability. Specifically, we suggest that Board continue with its base amount of water at 12 CCFs or roughly 50 gallons per person per day for a four-person household, but build-in some flexibility for diverse household needs. We also suggest that the Board consider a program discount that sets the cost of 12 CCFs[153] of water as 2.5 percent of household income, rather than an uniform percentage;[154] or that it uses some hybrid that better accounts for variability among water rates, water access, and the population. For systems with very high water costs, we provide guidance to address concerns about how the program can support both household-level and system-level affordability. Lastly, we note that the Board may want to move away from a bill discount altogether, and consider working with utilities to propose a statewide lifeline water rate that is compatible with the constraints imposed by Proposition 218.[155] This last option is explored in Subsection C below.

1. The Program Subsidy Should Be Targeted and Responsive to Need

The Board's four scenarios set the basic amount of water at 12 CCFs, or roughly 50 gallons per person per day for a four-person household. We agree with this quantity as a safe estimate of the amount of water needed by an average four-person household to fulfill basic

[152] CAL. WATER CODE § 106.3(a).
[153] Centum cubic feet (CCF) is one of the most common units used by water utilities to measure water use. One CCF equals 748 gallons. United States Environmental Protection Agency, Understanding Your Water Bill, available at https://www.epa.gov/watersense/understanding-your-water-bill.
[154] In the alternative, we support the position proposed by the Pacific Institute in their comments, of calculating the discount based on 1.5% of household income, or, if that is infeasible, the Federal Poverty Line.
[155] As explained *infra* at Section IV.C, Proposition 218 prohibits publicly owned utilities from subsidizing low-income rate assistance by charging other customers more than the cost of service. See Section IV.C and Appendix III, *infra*, for analysis of two options for creating a statewide lifeline rate that is compatible with Proposition 218.

needs and note that the standards set forth by the United Nations (UN) and the World Health Organization (WHO) support the Board's position on this point.[156] But this amount must be tailored to the specific situation of certain categories of individuals, including children, pregnant women and those living in more arid areas.[157]

An appropriately targeted program subsidy will ensure that low-income households can afford access to this minimum amount of water for household needs. The Board should avoid a subsidy that discounts the correct amount of water without assuring that the resulting bill will be affordable, such as the uniform percentage discount envisioned in the Board's four scenarios, or one that overlooks the fixed costs to access this amount of water (*i.e.*, the non-variable portion of a water bill that must be paid even when no water has been used).[158]

Because not every California household will need the same level of assistance to achieve affordability, we suggest that the program provide a subsidy that is proportional to household need and size. However the program benefit is calculated, that calculation should take into account the number of people living in the household and any particular circumstances that might affect water affordability (such as high medical bills, high rent, or the need to purchase safe replacement water in addition to the water bill). Given the diversity of circumstances faced by low-income households across the state, a uniform dollar amount subsidy or flat percentage discount would be unlikely to fulfill the program's purpose, as further detailed below.

Likewise, because different households will have different and changing needs, each household likely has different and changing water needs. Accordingly, although we generally support 12 CCFs as the correct volume for the basic household needs for a family of four, setting a universal basic volume service level is unlikely to be appropriate. Instead, basic water volume should be calculated in a way that is more tailored to individual household needs and size. This information can be collected on program applications in a way that makes it administratively feasible to provide a more tailored level of assistance (e.g., by assigning points to different factors like the number of persons in the household, the presence of a person whose medical needs require increased water consumption, etc. to calculate the appropriate level of assistance for this household).

The program should also provide some degree of flexibility to support families facing unexpected changes in their household finances that may make water unaffordable even with a more tailored program subsidy. Where a household cannot afford even a reduced water bill, we suggest that the program allow the household to temporarily pay a nominal fee until they can

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[156] CESCR General Comment 15, *supra* note 63 at para. 12(a) ("[t]he water supply for each person must be sufficient and continuous for personal and domestic uses. These uses ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene."); World Health Organization, J. Bartram and G. Howard, "Domestic water quantity, service level and health: what should be the goal for water and health sectors?, WHO/SDE/WSH/03.02 (2002), available at http://www.who.int/water_sanitation_health/diseases/WSH0302.pdf. For a more thorough discussion of basic water requirements, see P.H. Gleick, (1996) "Basic water requirements for human activities: meeting basic needs", Water International, 21, pp. 83-92, available at http://pacinst.org/app/uploads/2012/10/basic_water_requirements-1996.pdf.

[157] Anne C. Grandjean, "Water Requirements, Impinging Factors, and Recommended Intakes" (World Health Organization, 2004).

[158] For example, EBMUD recently calculated that the minimum Oakland resident bill with no water use is $70.66 per month, a rate that is unaffordable for many of Oakland's low-income households. See EBMUD, Sherri A. Hong, Manager of Customer and Community Services, Memorandum to Board of Directors Re: Customer Assistance Programs Update (Nov. 3, 2016) 1.

afford their subsidized bill again. This program feature may be necessary to ensure affordability and access to a minimum amount of water in situations of unexpected unemployment, medical emergencies, or other crises. If the inability to pay the subsidized bill amount persists beyond a certain amount of time, the program should reassess the subsidy provided to the household in question to ensure that the reduced bill is set at a level the household can afford going forward.

2. Any Discount Should Be Calculated to Achieve Affordability

To fulfill the human right to water and use state resources as effectively and efficiently as possible, any discount should be calculated to achieve affordability. Our analysis demonstrates that neither a uniform percentage discount nor a flat dollar payment would maximize affordability. By failing to adequately target the subsidy, the Board would lose a valuable opportunity to direct the state's resources towards their best use. Instead, we suggest that the Board suggest either a program discount that sets the cost of 12 CCFs of water as 2.5 percent of household income, or better still, the creation of a statewide lifeline water rate that is compatible with Proposition 218 (explored in Subsection C, next). These alternatives are designed to reach typical water utility customers; later sections of this report address ways for the program to reach other groups that need assistance but might be excluded by these approaches.[159]

a. A Flat or Simple Percentage Discount Will Not Achieve Affordability

In its four scenarios, the Board raised the possibility of a discount that takes a uniform percentage off the program enrollees' water bill, as the CARE program does. While this would ensure that program enrollees with particularly high water rates get a larger discount than those with smaller water bills, this discount would not align with water affordability. For example, a household making $1,600 a month (with $40 as 2.5 percent of their income) would already have had an affordable bill in Signal Hill, CA where water bills average $27.63, while a household in South Pasadena, CA with an average water bill of $102.50 would still not have an affordable bill even after the 20 percent discount.

The Board also previously raised the possibility of using a flat dollar discount as a potential program benefit. While a flat dollar discount would ease the administrative burden of a water affordability program, it would have little benefit for enrollees in areas where water rates are high. With water rates tied to cost of service in California, rates vary widely. While $5 off a monthly bill in Signal Hill where the average monthly bill is $27.63 may help, $5 off in South Pasadena where the average monthly rate is $102.50 is effectively useless.[160]

The appeal of these flat or percentage discounts is administrative ease. To the extent the Board is committed to one of these options, it may want to establish a program with a uniform percentage discount for all program enrollees, but offer an additional discount if an enrollee is still burdened by the water bill. Households requesting larger discounts could offer proof of income and recent water bills to calculate their bill discount using the more tailored formula

[159] It is regrettably outside the scope of this report to explore ways of delivering a subsidy that is not connected to a water bill to be delivered through some more universal means, including through the CARE or CalFresh programs. However, we welcome the Board's efforts in this regard and generally agree with the conclusions reached in the comments submitted by the Pacific Institute.

[160] U.S. Conference of Mayors Water Cost Report, *supra* note 75 at 47-49.

discussed below. The downside of this compromise would be that funding needs would vary, making it more challenging to ensure an adequate funding stream.

Alternatively, similar to the tiered discount proposed in the Board's Scenario #2, the program could offer a deeper discount to needier households. For example, households at 200 percent FPL could receive a 20 percent discount, whereas households below 100 percent FPL would receive a 35 percent discount. To calibrate the discount tiers in line with affordability, the Board would need to assess what percentage of enrollees would be paying an affordable bill under this system. This still would not remedy the issue of widely varying water rates, however.

b. A Tailored Discount Is the Best Bill Reduction Option

The best bill reduction option for optimizing affordability is a tailored discount based on each household's needs and costs. There are two ways to calculate this discount. First, the discount (D) would be based on the amount of a water bill (W) and the household's monthly income (I) with the goal of keeping each household's water burden at under 2.5 percent of income.

Discount Applied to a Water Bill

D = W—(I*0.025)

D is the discount for the household in dollars, W is the monthly water bill, and I is the monthly income. (Participants in an affordability program should still have the ability to apply for variances based on high medical bills, overcrowding, or other costs that may make spending 2.5 percent of their income on water impossible.)

Alternatively, the program could create a maximum bill (PB) for enrollees based on the enrolled household's income (I).

Maximum Program Enrollees Pay for a Given Water Bill

PB = (I*0.025)

PB is the program bill that enrollees will pay and I is the monthly income of the enrolled household. If the water bill is less than PB, then that household pays the lesser.

Philadelphia's cutting-edge water affordability program, which went into effect on July 1, 2017, uses this second formula. Customers who make between 0 and 50 percent FPL have their water bills capped at 2 percent of their income (I*0.02). Customers who make between 51 and 100 percent FPL have bills capped at 2.5 percent of their income (I*0.025). Those between 101 and 150 percent of the FPL have their bill capped at 3 percent of their income (I*0.03).[161] For customers who earn between 151 and 200 percent of the FPL and who are in debt to the water

[161] Philadelphia Water, Sewer & Stormwater Rate Board, *Report of the Board on PWD Proposed Rate Changes FY2017, FY2018*, at 30-31 (2016), available at http://www.phila.gov/water/rateboard/PDF/DeterminationDate%20Stamped.060716.pdf [hereinafter Philadelphia Water Rate Board Report].

department, their debt repayment is added on to their monthly bill and is capped at 4 percent (I*0.04).[162] All customers pay a minimum bill of $12.[163]

If this calculation is too complicated to do on a monthly basis, ratepayers could use the prior year's total water cost and annual income to make the same calculation. For the following year, this discount could be divided by twelve (or six) and applied to the monthly (or bi-monthly) water bills. This calculation on an annual basis would mitigate the administrative burden but still allow for a program that directly addresses water affordability.[164]

3. Special Considerations for High-Cost Systems

We recognize that for systems with very high water costs, particularly small systems that struggle to provide safe drinking water, a program subsidy designed to make water affordable to low-income households could implicate significant program costs and raise concerns that the program might prop up failing systems. While our recommendations on addressing system-level affordability in subsequent sections of this report are designed to partially address this concern, we also recommend that the Board incorporate additional program elements to balance household-level affordability with concerns about system sustainability. Specifically, we suggest that the Board first identify these high-cost systems at the outset and work with each system individually to do the following: (1) establish a timeline and plan for achieving sustainability, whether through operations and maintenance support, consolidation, capital improvements, or other means;[165] (2) for the duration of that time period, provide the program discount to low-income customers within the system;[166] (3) for the same time period, deposit the program subsidy into a separate account that can only be used for measures identified in the sustainability plan.[167] This approach ensures that low-income households will receive the short-term support

[162] Robert Ballenger Interview, *supra* note 93.
[163] Philadelphia Water Rate Board Report, *supra* note 161 at 33. Philadelphia's program is funded through base rates, in other words the base rate paid by all customers includes the cost of the program. Robert Ballenger Interview, *supra* note 93.
[164] The problem with this measure is, of course, that it would only apply to those who pay a water bill (including those in single family homes and those who pay a monthly bill in master-metered housing). This would include people in single family homes and in individually metered rentals, and could also be applied to certain nonprofits. Affordable housing nonprofits and other nonprofits such as shelters could show proof of their nonprofit status and proof that they are housing, providing shelter, or providing access to water and sanitation for low-income or homeless people to qualify for enrollment into the affordability program. The program could help ease the operational burden on the nonprofit. This calculation would not help renters whose water costs are paid by a landlord, homeless populations who lack access to water, or those with private wells. These populations will be discussed further in, respectively, Sections V, VI, and IX, *infra*. However, this is an initial step and clearly aligns with AB 401 as well as AB 685's requirement to consider the human right to water when designing state programs.
[165] A related suggestion here would be for the Legislature to expand the Board's powers under SB 552 (operations and maintenance support to struggling systems) and SB 88 (consolidations) to include situations where a water system cannot provide safe water at an affordable price.
[166] For high-cost systems struggling to provide safe water, the household-level program benefit should also include replacement water as an interim measure.
[167] This approach is similar to that used by the Los Angeles Housing and Community Investment Department in its Rent Escrow Account Program (REAP). REAP targets substandard rental properties and encourages the owner to make repairs by offering tenants a substantial reduction in rent and creating an escrow account where all rent monies are deposited and can only be released for repairs, essential services (like water), or other expenses associated with the uninhabitable condition of the property. The city assigns an outreach contractor to assist tenants and make sure the landlord makes necessary repairs. The landlord can only remove the property from REAP once the property has

they need while leveraging the program subsidy to achieve system sustainability (rather than allowing it to prop up a failing system) and limiting the higher program costs of providing a substantial discount to households in high-cost systems.

4. Summary of Recommendations for Designing the Program Benefit

- The program subsidy should ensure access to a basic amount of water for household needs, set at no less than 50 gallons per person per day. This standard should be tailored to individual household circumstances.
- The program should provide a subsidy that is proportional to household need and size. Households facing unexpected exigencies should be able to apply for an increased subsidy.
- Any program discount should be calculated to achieve affordability on a household level. The Board should prioritize options like calculating a bill discount that sets the water bill at no more than 2.5 percent of household income over options like a uniform percentage discount or a flat dollar payment.
- For high-cost systems, the program should temporarily provide household-level support while working with systems to achieve sustainability and lower costs.

C. A Statewide Lifeline Rate May Be A Good Programmatic Option for Affordability and Program Sustainability

We agree with the Board's assessment that it would be worthwhile to explore the possibility of achieving affordability through the establishment of a statewide lifeline rate for a basic amount of water.[168] If a statewide lifeline rate were made available to all low-income water customers for a nominal cost, it would assure affordable access to a basic amount of water while reducing the administrative costs associated with delivering a program benefit to each household individually.[169] The lifeline rate should be calculated to provide a basic amount of water to the number of people in an average *low-income* household, to account for the increased likelihood of overcrowding in low-income households.

Under this model, there are several options for administration. If utilities wish to play a greater role, each utility could identify the low-income households in its service area, charge them a nominal rate for this lifeline tier, and recoup the revenue gap either by incorporating it into its cost of service or by seeking reimbursement from the state, via whatever funding mechanism is adopted to support the program. On the other hand, if utilities are concerned about the additional administrative burden of this approach, the state could centrally administer the lifeline rate and mitigate its own administrative costs by calculating the discount on a system

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been brought up to city standards. For more information, see Los Angeles Housing and Community Investment Department, What is REAP?, available at http://hcidla.lacity.org/what-is-reap-for-renters.

[168] SWRCB Affordable & Safe Drinking Water Initiative Fact Sheet, *supra* note 103.

[169] As noted above, we recognize that a statewide lifeline rate, like any straightforward water bill discount, will not reach low-income households that are not typical water utility customers. The approach envisioned in this section is that the Board could adopt one strategy—a lifeline rate or some form of bill subsidy—that would reach the large proportion of low-income households that are water utility customers, and then craft one or more complementary approaches to reach those that would otherwise be excluded, particularly renters, mobile home residents, and the homeless, as discussed in subsequent sections.

rather than household basis (*e.g.*, by calculating the difference between the agreed-upon affordable cost for 12 CCFs and the actual cost of 12 CCFs in each given system, and then providing each enrolled household with that amount for their system). Alternatively, it may be more cost-effective for the state to simply provide a discounted lifeline rate for a basic amount of water to all water customers, regardless of income level, if the savings associated with no longer having to identify all eligible households outweigh the cost of providing the subsidized rate to a larger group.[170] We recommend that the Board research the cost-effectiveness and administrative feasibility of these options.

The primary obstacle to tiered rate structuring (including a life-line rate) for publicly owned utilities (POUs) in California is Proposition 218.[171] This is due in part to actual legal impediments, and in part to utilities' fear of being sued by taxpayers.[172] Working with utilities to navigate, or even potentially amend, Proposition 218 may be the best option—explored in Subsection D below.[173] Assuming, however, that is not possible, we outline a lifeline rate that would comply with Proposition 218. Under either scenario, we strongly recommend the Board consider the establishment of a statewide lifeline rate as the most effective way to assure affordable access to a basic amount of water for all low-income households.

1. What is Proposition 218?

Proposition 218 is a constitutional amendment that requires that "[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."[174] This proportionality requirement means that public utilities must base their rates solely on the cost to deliver the water.[175]

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[170] *See* Roger Colton, "State Legislative Steps to Implement the Human Right to Water in California," March 2015, pp. 7-9 (on file with authors).

[171] Note that Proposition 218 does not apply to private, or investor-owned utilities, which provide low-income rate assistance as approved by the California Public Utilities Commission. Only 16% of Californians receive water service from an investor-owned utility. *See* California Public Utilities Commission, Water Division, available at http://www.cpuc.ca.gov/water/.

[172] *See City of Palmdale v. Palmdale Water Dist.*, 198 Cal. App. 4th 926, 933 (2011), (water rates not demonstrated to reflect proportional cost of service violate Proposition 218); *Capistrano*, 235 Cal. App. 4th at 1499 (same); *Boyd v. Soquel Creek Water Dist*., No. H041389, 2016 WL 1752932, at *10 (Cal. Ct. App. Apr. 29, 2016) (same). There has also been a lot of negative coverage of this issue. *See* Meghann M. Cuniff, *Court: San Juan Capistrano's tiered water rates are illegal, may hinder conservation*, Orange County Register (Apr. 21, 2015) ("a potential defeat for agencies that use tiered pricing to encourage people to use less water."); Mercury News Wire Report & Beau Yarbrough, *California drought: Court rules tiered water rates violate state constitution*, Mercury News (Apr. 20, 2015); Dale Kasler, *California Supreme Court won't budge on water rates*, The Sacramento Bee (July 23, 2015) ("In a setback to California water regulators' conservation efforts, the state Supreme Court has kept intact a ruling that makes it harder for municipalities to impose tiered pricing to discourage heavy water use.") (discussing the California Supreme Court's decision not to depublish the *Capistrano* opinion).

[173] Although outside the scope of this report, the Board may also wish to consider recommending amendments to Cal. Const. arts. XIII C, § 1 as well as the restrictions on state fees in Cal. Const. art. XIII A.

[174] Cal. Const. art. XIII D, § 6(b)(3).

[175] Cal. Const. art. XIII D, § 6(b)(1), (3); *Capistrano*, 235 Cal. App. 4th at 1506.

2. What Does Proposition 218 Prevent?

Because rates cannot differ between users who cost the same to serve, utilities cannot use money collected from water rates to fund a "lifeline" rate—where essential daily water needs are provided at little or no cost to every household—to low-income families. Put another way, public utilities cannot subsidize a below-cost, reduced rate for low-income customers by charging other ratepayers more. Indeed, any affordability programs paid for by utilities must come from an outside funding stream, such as through cell tower leases on water district land. These outside funds are few and far between.[176] This means that if the cost of providing a basic amount of water is greater than what the affordability standards outlined above would require, public utilities offering an affordable lifeline rate would face a revenue shortfall that cannot be made up by increasing its rates for non-low-income customers.

3. Creating a Statewide Lifeline Rate Compatible with Proposition 218

The state can create a Proposition 218-compatible statewide lifeline water rate in one of two ways. First, it can require all water utilities to offer low-income households a basic amount of water for a nominal fee and then reimburse utilities for the difference between this nominal fee and the utilities' cost of service for that amount of water.[177] As with water shutoff costs, in order to ensure that public utilities do not have to choose between budget shortfall and violating Proposition 218, the state will need to supplement a statewide lifeline rate with additional measures to resolve this conflict. External funding is likely the most critical element.

Another option—though one that may raise some legal questions and on which reasonable minds may differ—would be for the state to require utilities to offer an affordable lifeline rate and build the costs of complying with this state mandate into their costs of service.[178] Again, as in the case of shutoff protections, utilities may not welcome the need to impose an additional fee on their customers as a result of a state mandate, and there is a risk that ratepayers will reject the necessary rate changes.[179] Accordingly, we recommend that the state adopt a three-part approach: first, encourage utilities to adopt tiered rates including a lifeline rate that reflects the costs of providing a basic amount of water (discussed in the next section);[180] second,

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[176] *See* Pacific Institute Water Rates Fact Sheet, *supra* note 130 at 2, 5.

[177] As noted above, to allay utility concerns about administrative costs, the state could administer this approach to the lifeline rate centrally.

[178] Courts have upheld fees imposed to cover the costs of state-mandates. For example, in *Connell*, the court found that water districts had the authority to levy fees to cover the costs of meeting state-mandated water purity requirements for reclaimed wastewater. *Connell*, 59 Cal. App. 4th at 387, 401-403. Water Code section 35470 broadly authorizes water districts to charge fees "to defray the ordinary operation or maintenance expenses of the district and for any other lawful district purpose." *Id*. at 401. However, a more literal interpretation of Proposition 218 may raise questions about this analysis, and there may be further limitations due to the effects of Proposition 26. For these reasons, we encourage the Board to prioritize the first option outlined above.

[179] *See* Cal. Const., art. XIII D, § 6(a)(2).

[180] Although Proposition 218 prohibits POUs from using water rates to subsidize low-income water users, a lifeline tier tied to the cost of service would still make the price of a basic amount of water more affordable for low-income households. This practice would reduce the state's cost to ensure affordability while prioritizing utility control over ratesetting. Further, the *Capistrano* court suggested that Proposition 218 actually requires this approach. *Capistrano*, 235 Cal. App. 4th at 1503, 1506, 1511. See Section IV.D, *infra*, for a more detailed discussion of this recommendation. Additionally, it may also be advisable to consider including one-time financial assistance to utilities adopting tiered rates to defray the costs of going through the ratesetting process.

impose a state-mandated lifeline rate for a basic amount of water; and third, reimburse utilities for the difference between the statewide rate and their own lifeline rate.

4. Summary of Recommendations for Considering a Statewide Lifeline Rate

- The Board should recommend that the state adopt a three-part approach to:
  - ✓ First, encourage utilities to adopt tiered rates including a baseline rate that reflects the costs of providing a basic amount of water;
  - ✓ Second, impose a state-mandated lifeline rate that offers a basic amount of water at a nominal, affordable price; and
  - ✓ Third, reimburse utilities for the difference between the statewide rate and their own baseline rate, using the program funding mechanism.

D. WORKING WITH UTILITIES TO REDUCE PROGRAM COSTS AND INCREASE AFFORDABILITY BY SUPPORTING EFFORTS TO TIER WATER RATES

AB 401 requests that the SWRCB "include a set of recommendations and best practices of cost-savings measures to ensure water utilities are demonstrating whether and how they are keeping rates low." Utilities can keep rates for low-income users low by providing tiered pricing.

Tiered pricing based on need—or a lifeline rate—would be the most effective way for utilities to keep rates low for low-income individuals. But the Proposition 218 requirement that the price of water reflect the cost of service makes need-based ratesetting very difficult for public utilities absent state intervention, as discussed above. Proposition 218 does not, however, prohibit usage-based tiered pricing. Usage-based tiered rates make baseline water usage affordable—and most low-income individuals' usage stays within the baseline amount.[181] Tiered pricing also encourages conservation and could lower the overall cost of operating a statewide water rate assistance program by lowering water bills for low-income customers. Accordingly, the Board's proposal should include elements that encourage utilities to adopt tiered pricing.

In interviews with utilities, it became clear that many would like to help low-income users with lifeline rates and other affordability programs, but are hampered by Proposition 218. Governor Brown echoed this frustration in his signing of AB 401, writing, "Proposition 218 serves as the biggest impediment to public water systems being able to establish low-income rate assistance programs."[182] While Proposition 218 provides valuable accountability and transparency guarantees, it hinders the ability of local water agencies to ensure affordability. The ideal solution would be to amend Proposition 218 to exempt this type of programming, as proposed in Senate Constitutional Amendment 4 (SCA 4),[183] though utilities in predominantly low-income areas would still need outside revenue to support an affordability program. We

[181] CAL. WATER CODE § 189.5(a)(3).

[182] *See* Chris Megerian, Los Angeles Times, "Restrictions on water rates get newfound opposition from Gov. Jerry Brown," (Oct. 10, 2015), available at http://www.latimes.com/politics/la-pol-sac-jerry-brown-water-rates-california-20151009-story.html.

[183] California Senate Constitutional Amendment 4, Cal. Leg. 2017-2018 Session, available at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SCA4. *See also* Senator Robert Hertzberg, Press Release, "Herzberg Aims to Guarantee Affordable Drinking Water, Improve Conservation with New Bills," February 2, 2017, available at http://sd18.senate.ca.gov/news/222017-hertzberg-aims-guarantee-affordable-drinking-water-improve-conservation-new-bills.

therefore recommend that the Board's proposal include support for SCA 4's proposed exemption of low-income assistance from Proposition 218.

Assuming the state cannot repeal or amend Proposition 218, there are still a number of areas in which the state can help utilities navigate Proposition 218 and, importantly, protect utilities that tier rates from related taxpayer lawsuits. First, the state can make clear that Proposition 218 does not prohibit tiered rates, and in some instances may require it. The state can also offer technical assistance to utilities to implement tiered pricing, and develop a best practices report or guidance for public water utilities that defends tiered water rate structuring, featuring case studies of various utilities successfully implementing tiered rates.

1. Tiered Pricing Keeps Water Affordable for Most Low-Income Users, Encourages Conservation, and Reduces the Cost of Rate Assistance to the State

Tiered rate structures, also known as block pricing, increase the amount charged per unit of water as use increases.[184] For many of the California utilities that employ tiered rate structures, the first block represents average indoor usage, the second block represents outdoor irrigation, and additional blocks signal inefficient or 'wasteful' uses."[185] This contrasts with a uniform volumetric rate structure where the user pays the same price per unit regardless of how much they use.[186]

Because many low-income consumers use only the minimal amount, this type of tiered rate would significantly lower their monthly water bills.[187] This, in turn, would reduce the cost of rate assistance borne by the state—both by lowering the cost per unit of water, and by reducing the overall number of households who need state support.[188]

Block structures also encourage efficient water use by sending a conservation signal through the price of the water, thereby supporting the goals of Governor Brown's Executive

[184] *Pricing and Affordability of Water Services,* EPA (last updated March 24, 2016), https://www.epa.gov/sustainable-water-infrastructure/pricing-and-affordability-water-services.
[185] Pacific Institute Water Rate Basics Report, *supra* note 91 at 9; *Water Rates*, Marin Water, https://www.marinwater.org/223/Water-Rates.
[186] Uniform volumetric and tiered rate structures are the two major ways to structure tiered water rates. However, flat rates/flat fees are another price structure where a consumer pays the same amount each month regardless of use. Additionally, water rates historically were set in decreasing block rates where consumers were charged a lower unit price as their consumption increased. These rates are now out of favor as they send no conservation signal. Pacific Institute Water Rate Basics Report, *supra* note 91 at 7-8.
[187] Ken Baerenklau, Kurt Schwabe & Ariel Dinar, *Allocation-Based Water Pricing Promotes Conservation While Keeping User Costs Low*, Agriculture and Resource Economics (July/Aug. 2014), http://s.giannini.ucop.edu/uploads/giannini_public/00/7a/007aff05-d6f0-480b-966a-e0b39b0b48f7/v17n6_1.pdf [hereinafter Baerenklau Allocation-Based Water Pricing Report]. It would not eliminate all expenses, however, as the flat service charge often makes up a decent percentage of any water bill. We therefore agree with the comments submitted by the Pacific Institute suggesting that the Board consider working with utilities to consider whether they could move some of the flat charge over into usage charges.
[188] This is particularly true if the Board adopts the subsidy structure proposed in the four proposed scenarios, where the program offers a percentage discount on what is essentially a baseline amount of water. With tiered pricing, that portion of the bill is likely to become less expensive, meaning that the program subsidy would either be less (in terms of actual dollar amount) or the program would be able to offer a deeper subsidy on that amount of water for the same dollar amount.

Order on Making Water Conservation a California Way of Life.[189] One study found that tiered rates decreased water use by 18 percent.[190] To achieve the same reduction in water use under a flat rate, the average price would have to rise by at least 48 percent.[191] In another example, Irvine Ranch Water District (IRWD) reported that block pricing, combined with other conservation programs, reduced outdoor water use by 61 percent.[192]

2. The State Should Help Public Utilities Navigate Proposition 218 and Make Clear that It Does Not Preclude Utilities from Charging Tiered Rates

As the California Court of Appeal clarified in *Capistrano*, "tiered water rate structures and Proposition 218 are thoroughly compatible 'so long as'. . . those rates reasonably reflect the cost of service attributable to each parcel."[193] While water utilities cannot tier rates to subsidize low-income consumers,[194] utilities may justify tiered rates based on (1) the costs of different sources of water; (2) the costs of designing a larger capacity system or water treatment facility to account for peak load; and/or (3) the costs of water conservation or efficiency programs.[195]

Justification is the key. In *Capistrano*, the water district had to obtain water from five separate sources to meet the demand.[196] The court observed that new water sources may require capital outlay for infrastructure and maintenance that may not be necessary if everyone just used the minimum amount of water necessary for basic needs.[197] As another court explained, "[t]o the extent that certain consumers over-utilize the resource, they contribute disproportionately to the… requirement that [a water district] acquire new sources for the supply of domestic water."[198]

Recognizing this, the *Capistrano* court found that Proposition 218 allows utilities to pass on the costs of more expensive and additional sources of water to the higher users that cause the

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[189] Pacific Institute Water Rate Basics Report, *supra* note 91 at 13, tbl.2 (noting that a conservation signal "depends on the size of the block and the price per unit"); Baerenklau Allocation-Based Water Pricing Report, *supra* note 187; Making Water Conservation a California Way of Life EO, *supra* note 19; *see also* California Department of Water Resources, Fact Sheet on Making Water Conservation a California Way of Life, April 2017, available at http://www.water.ca.gov/wateruseefficiency/conservation/docs/Factsheet%2020170407_Regular.pdf.

[190] Baerenklau Allocation-Based Water Pricing Report, *supra* note 187 at 3 (finding that one water district reduced water demand by 18 percent by implementing tiered rates without any negative impact on its fiscal balance).

[191] *Id*. at 12.

[192] *Id*. at 3.

[193] *Capistrano*, 235 Cal. App. 4th at 1499 n.6.

[194] *Id*. at 1499, 1506.

[195] *See, e.g.*, *id.* at 1502-1503 (costs associated with developing new water supplies may be charged to customers whose use levels necessitate those new supplies); *Griffith*, 220 Cal. App. 4th at 595 (water augmentation charge could spread costs of protecting water supply among customers).

[196] *Capistrano*, 235 Cal. App. 4th at 1500 (proportionally, the groundwater recovery plant accounted for 51.95% of the water supply; the Metropolitan Water District, 28.54%; local wells, 7.79%; recycled wells, 6.11%; and the Moulton Niguel Water District, 5.61%).

[197] *Capistrano*, 235 Cal. App. 4th at 1503; *see also* Kelly J. Salt, *Adopting Conservation-Based Water Rates That Meet Proposition 218 Requirements*, League of California Cities 15 (May 4, 2016), available at https://www.cacities.org/Resources-Documents/Member-Engagement/Professional-Departments/City-Attorneys/Library/2016/Spring-2016/5-2016-Spring-Adopting-Conservation-Based-Water-Ra.aspx ("The incremental costs associated with creating this excess, peak capacity include designing, constructing, and operating and maintaining facilities" as well as at times procuring another source of water.).

[198] *Brydon v. E. Bay Mun. Util. Dist.*, 24 Cal. App. 4th 178, 202 (1994).

utilities to incur these costs.[199] The court went further still, suggesting that these additional capital and infrastructure costs *must* be allocated to the high users[200] because "lower-than-average users" should not have "to pay rates that are *higher than the cost of service for them* because those rates cover capital investments their levels of consumption do not make necessary."[201]

Utilities can also pass the cost of building a system to meet peak demand to high users. Even when a utility gets most of its water from a single source, tiered water rates are appropriate to reflect the demand that each class of water user places on the system.[202] For example, EBMUD, a district with the vast majority of its water flowing from the Sierra,[203] charges more to customer classes that place a greater burden on the system by requiring them to have a water treatment system that is able to process the peak demand for water.[204] Additionally, utilities can pass infrastructure investment in a water treatment system to high water users because the water treatment system takes care of the urban runoff from excessive water use.[205]

A third justification for tiered pricing is to pass on conservation costs to the highest users. The *Capistrano* court made clear that where "certain consumers over-utilize the resource, they contribute disproportionately to the necessity for conservation."[206] This is an additional cost to the utility that gets passed to consumers. For example, the IRWD's conservation programs are only necessary because of customers who use excessive amounts of water.[207] Accordingly, "[o]nly heavy users are charged for the agency's conservation programming as well as its water treatment system."[208]

The state should consider working with utilities to implement tiered rates. In so doing, the state could look to California water utilities like the EBMUD,[209] IRWD,[210] Marin Municipal Water District,[211] and the City of Santa Cruz Water Department,[212] which have been able to

[199] *Capistrano*, 235 Cal. App. 4th at 1503.
[200] *Id*. at 1511, 1516 ("cost of service" includes not just additional water procurement, but also infrastructure costs, capital outlays, maintenance, conservation expenditures, and any other costs associated with providing water).
[201] *Id*. at 1503 (emphasis in original); *see also id.* ("[S[uperconservers" should not be "required to pay for recycling facilities that would not be necessary but for above-average consumption.").
[202] *See Water and Wastewater Cost of Service Study*, East Bay Municipal Utility District 27 (Apr. 9, 2015) [hereinafter EBMUD Cost of Service Study].
[203] In times of drought, EBMUD pulls from a water source north of the Bay Delta and passes on these costs to its Tier III consumers. However, outside of drought years, the utility gets its water from reservoirs in the High Sierra that store water from the Mokelumne River watershed.
[204] *See* EBMUD Cost of Service Study, *supra* note 202 at 27.
[205] Matt Stevens, *California water districts scramble to deal with ruling on rate tiers*, Los Angeles Times (May 7, 2015), available at http://www.latimes.com/local/california/la-me-water-rates-20150507-story.html [hereinafter Stevens Rate Tiers Article].
[206] *Brydon*, 24 Cal. App. 4th at 202.
[207] Stevens Rate Tiers Article, *supra* note 205; Irvine Ranch Water District, Cost of Service Study 28 (June 2015), http://www.irwd.com/images/pdf/about-us/Finance/IRWD%20Cost%20of%20Service%20%20-%20Final%20%20062215.pdf [hereinafter IRWD Cost of Service Study].
[208] Stevens Rate Tiers Article, *supra* note 205
[209] *Water Rate Schedule*, EBMUD, http://www.ebmud.com/water-and-drought/water-rates/.
[210] *Residential Water Rates*, IRWD, http://www.irwd.com/services/residential-water-rates.
[211] *Water Rates*, Marin Water, https://www.marinwater.org/223/Water-Rates.
[212] Water Department Prop. 218 Notice Proposed Rates (July 2016), City of Santa Cruz, http://www.cityofsantacruz.com/home/showdocument?id=53194.

implement well-justified tiered-rate structures. We provide case studies from EBMUD and IRWD in Appendix I.

IRWD has a particularly innovative rate structure that may be worth modeling. It uses a tiered, "allocation-based, conservation rate structure" in which water allocation is property-specific and tied to household size, outdoor landscaped area, and weather.[213] IRWD also allows customers to apply for variances based on "additional residents, medical needs, and daycare facilities."[214] It sets its tiers based on use: low-volume, base, inefficient and wasteful. The low-volume tier covers basic indoor needs per person and the base rate includes an additional allocation for human use plus an allocation for outdoor use for drought tolerant plants and efficient irrigation.[215] The utility assigns higher costs to the top two tiers:

> The cost of water for the inefficient tier is all imported water, plus a share of the cost of the water banking program since that water is used to meet above allocation demands. The wasteful tier represents a level of use that far exceeds the reasonable use for the property. The cost of service for the wasteful tier includes the imported water cost, a share of the cost of the water banking program, as well as the cost for targeted conservation efforts. These are conservation efforts that are specifically directed at the wasteful tier, and go beyond general conservation outreach and programs that apply to all customers.[216]

Monthly Water Rates for Fiscal Year 2016 -17

Irvine Ranch Rate Area - Residential Water Rates			
Tier	% of Monthly Water Budget Residential with Outdoor	% of Monthly Water Budget Multi- Family with No Outdoor	FY 2016-17 Rates Per CCF 1 CCF = 748 gallons
Tier 1 Low Volume	0 -40 %	0-60%	$ 1.21
Tier 2 Base Rate*	41 -100%	61-100%	$ 1.65
Tier 3 Inefficient	101-130%	101-120%	$ 4.01
Tier 4 Wasteful	131+	121+	$12.01

*your monthly water budget

Source: Irvine Ranch Water District[217]

IRWD is working with other utilities to develop a rate setting guide that can be used by other utilities as they consider setting tiered rates.[218] The state could use this guide as a tool for supporting other utilities in making a transition to tiered rates.

[213] IRWD Cost of Service Study, *supra* note 207 at 1, 6.
[214] IRWD Cost of Service Study, *supra* note 207 at 26.
[215] IRWD Cost of Service Study, *supra* note 207 at 28.
[216] IRWD Cost of Service Study, *supra* note 207 at 28.
[217] *Residential Water Rates*, IRWD, http://www.irwd.com/services/residential-water-rates.
[218] Telephone interview with Fiona Sanchez, Director of Water Resources, IRWD (Nov. 2, 2016).

3. Summary of Recommendations to Support Utilities in Offering Tiered Rates

- The best option is for the state to amend Proposition 218.
  - ✓ This is complicated, because Proposition 218 was passed by voter initiative and therefore can only be changed by a vote of the people. However, it is not impossible, and was contemplated in AB 401's mandate that the SWRCB include "a discussion of any constitutional restrictions on public water agency ratesetting" and a "set of recommendations and best practices of cost-savings measures to ensure water utilities are demonstrating whether and how they are keeping rates low."[219]
  - ✓ Amending Proposition 218 to permit utilities to provide a lifeline rate or to exempt low-income assistance programs would reduce monthly bills for low-income consumers, and lower overall program costs.
  - ✓ SCA 4 could be a promising vehicle for such reforms.
- Assuming that the state cannot amend or eliminate Proposition 218, it can reduce costs by helping utilities create tiered rate structures consistent with Proposition 218. Specifically, the SWRCB should provide technical assistance to support small utilities in constructing these rate structures.
- The Board should work with the state and utilities to develop a best practices report or guidance for public water utilities that defends tiered water rate structuring. The report would do the following:
  - ✓ Explain that California law allows—and in some instances requires—a utility to create a tiered rate structure where the first block rate reflects the cost of infrastructure and water if everyone used water solely for essential needs (drinking, cooking, cleaning and sanitation), the next block would be determined based on the additional infrastructure and water needed to deliver outdoor irrigation, and wasteful uses would reflect the cost of additional water and infrastructure to support overuse.
  - ✓ Provide case studies of compliant tiered rate structures.
  - ✓ Endorse rate structures reflecting additional costs imposed by high-volume water users that require the utility to (a) procure different and costlier sources of water to meet demand; (b) design a larger capacity system to account for peak load; or (c) to pay for water conservation or efficiency programs that would not be necessary but for the high-volume water users, among others. This would not be an exhaustive list, but it would provide help and comfort to utilities.
  - ✓ A number of utilities have expressed interest in this type of report and willingness to work with the state to create it.[220] The report and technical support would likely lead to fewer lawsuits, and provide a good defense to utilities. This would result in significant cost savings to the utilities the state, and ratepayers, and align with the state's important conservation goals. It would also be a more equitable solution, getting rid of the reverse subsidy flat rate utilities currently have in place.

[219] CAL. WATER CODE § 189.5.

[220] Utilities did, however, express concern about maintaining the flexibility to design their own rate structures, so we suggest that any best practices report or guidance make clear that utilities retain such flexibility to adapt these best practices to their own unique circumstances.

E. CONSERVATION MEASURES AS A KEY COMPONENT TO REDUCE PROGRAM COST AND WATER WASTE

As contemplated by AB 401, another "cost-effective method[] of offering assistance to low-income water customers besides rate assistance, [is] installation of water conservation devices[] and leak repair."[221] The National Consumer Law Center found in its recent review of water affordability programs that, "[s]hrinking the overall [water] bill can be achieved through assistance with conservation education, water-saving devices, and financial assistance with leak repairs."[222] A household-level conservation measures program to provide low-income customers with free or low-cost water audits, leak repair, and device upgrades would reduce bills, thereby improving affordability and lowering program costs. Conservation audits would also be helpful to tenants who are forced to pay a higher water bill due to a landlord's refusal to fix leaky pipes or replace aging fixtures. We therefore suggest the addition of a household-level conservation program, either as part of the affordability program or as a complementary program available to program enrollees, designed to support affordability and reduce water waste.

As noted above, water loss is a significant driver of unaffordability for low-income households. However the program subsidy is structured, households that cannot afford to repair leaks or replace inefficient fixtures may be unable to afford enough water to fulfill basic household needs. Unless the program addresses this issue, it will fall short of its intended goal to fulfill the affordability aspect of the human right to water.

Conservation measures are also an integral part of controlling costs, and heading off expected political critiques of the program, like "I'm not paying for someone else to water their lawn." Household conservation measures and leak repair for enrollees will help the state lower the overall cost of operating a statewide rate assistance program by lowering the water bills of those who receive assistance. This is particularly true of a percentage discount, and a discount tailored to keep water bills under 2.5 percent of household income. Moreover, an effective affordability program will need to discount the entire amount that a household spends on water above that amount. As a result, the Board will need to ensure that it is not picking up the bill for profligate water usage, or—as is more often the case—paying for water lost through undetected or unrepaired leaks. This is an important cost issue—given that the subsidy is ongoing, in the long run, it will be cheaper for the Board to help program enrollees to engage in a water audit, fix leaks, and likely upgrade to water-saving appliances.

It is also a critical political issue, as the Board will be hard-pressed to defend a program that does not limit monthly subsidies—and simply capping the subsidy will leave a number of families without sufficient support. Similarly, even if the program only provides a 20 percent discount on the first 12 CCFs of water, without conservation measures, low-income households may be losing much of this water to leaks and inefficient fixtures, meaning the state will literally

[221] CAL. WATER CODE § 189.5(d).
[222] *See* NCLC Water Affordability Report, *supra* note 74 at 17-22 (providing examples of water affordability programs that combine a water bill discount with a conservation and leak repair program).

be pouring money down the drain without improving affordability. That drain is about 10,000 gallons of wasted water per house each year, according to an EPA estimate.[223]

Leaking pipes and fixtures pose such a problem to California's water conservation efforts, that Senate Bill (SB) 555 requires each urban retail water supplier to conduct standardized water loss audits and report such data to the public.[224] SB 555 does not require action to remedy any reported water waste such as by repairing leaking pipes.[225] Yet subsidizing water for households with water leaks would turn a blind eye to water waste and thus fiscal waste, which would jeopardize long-term program sustainability.

Including conservation measures would also align the program with Governor Brown's Executive Order on Making Water Conservation a California Way of Life.[226]

There are a number of ways the Board can include water conservation measures in the program. The first would be to require—or offer—a water audit as part of participation in the program, and then either offer financial support to households or utilities to repair leaks. This is the approach taken by the new Philadelphia water affordability program.[227] A less expensive option may be to require audits only where the household appears to be using an excessive amount of water. In the case of multi-family properties where leaks and other inefficiencies are a result of landlord neglect, the program may be able to recoup audit and repair or replacement costs from the landlord. Either way, we suggest that the Board consider whether this aspect of the program would best be conducted by energy utilities and overseen by the CPUC as part of their energy audit and efficiency program rather than as a standalone program for water.

Summary of Recommendations on Conservation Measures

- We recommend that the Board include household-level conservation measures in the program for all enrollees and partner with local entities (utilities or non-profits) to conduct leak and conservation audits of enrolled households and fix or replace leaky or inefficient pipes and fixtures. The audit could also be a useful vehicle to raise awareness of and increase participation in other conservation incentive programs.
- Such assistance would ideally be provided to the household at little or no cost, and we therefore recommend that the program provide enrollees with financial support for conservation audits and related leak repairs and fixture upgrades.

[223] U.S. Environmental Protection Agency, *Fix a Leak*, available at https://www3.epa.gov/watersense/pubs/fixleak.html.
[224] CAL. WATER CODE § 10608.34.
[225] CAL. WATER CODE § 10608.34.
[226] Pacific Institute Water Rate Basics Report, *supra* note 91 at 13, tbl.2 (noting that a conservation signal "depends on the size of the block and the price per unit"); Baerenklau Allocation-Based Water Pricing Report, *supra* note 187; Making Water Conservation a California Way of Life EO, *supra* note 19; *see also* California Department of Water Resources, Fact Sheet on Making Water Conservation a California Way of Life, April 2017, available at http://www.water.ca.gov/wateruseefficiency/conservation/docs/Factsheet%2020170407_Regular.pdf.
[227] Robert Ballenger Interview, *supra* note 93.

V. ADDRESSSING UNIQUE AFFORDABILITY AND ACCESS CONCERNS FOR RENTERS AND MOBILE HOME OWNERS

Because many low-income families either rent units in multifamily properties or live in mobile home parks, renters and mobile home park residents are likely to need program assistance. However, many multifamily properties and mobile home parks in California do not have individual meters for each unit, which means that they do not receive a water bill and may be either paying for water as a portion of their rent or dividing the building or park's water bill with other residents. The lack of an individual water bill makes these households difficult for the program to reach through an on-bill discount, so we have conducted extensive research into the unique needs and circumstances of these households, including how they pay for water. After interviews with dozens of housing providers and experts, we have developed a set of detailed recommendations for how the program can best incorporate these households as well as particular concerns to consider when developing this aspect of the program.

A. REACHING MULTIFAMILY RENTERS

An equitable water affordability program should reach all low-income people who are burdened by water costs regardless of what type of housing they occupy. Traditional assistance programs make a discount or subsidy available to a consumer who directly pays a utility bill.[228] This approach reaches renters who have an individual water meter and pay the utility directly, but may not reach renters who live in multifamily dwellings.

Most multifamily dwellings are master-metered, meaning that residents do not pay an individual meter bill; instead, the landlord pays the bill and recoups the costs from the renters in various ways. While this poses some logistical challenges for including these tenants in the program, the following discussion illustrates the necessity of doing so and offers potential solutions tailored to the complex realities of the various master-metered rental situations faced by low-income California tenants.

The first step in designing an effective and efficient program for the one in three Californians living in master-metered units[229] is to distinguish renters living in market-rate housing from those living in non-profit affordable housing and for-profit affordable housing. Tenants in market-rate housing pay for their water as part of their rent payment, either through a monthly Ratio Utility Billing System (RUBS) or submetering. Although they do not pay the utility directly, tenants bear some or all of the cost of their water bill (and sometimes more). These tenants need access to the program, and we suggest below various ways the Board can equitably and efficiently provide water rebates to those low-income renters.

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[228] *See e.g.,* San Francisco Public Utilities Commission, Community Assistance Program Fact Sheet, available at https://sfwater.org/index.aspx?page=131 (to be eligible, water and sewer bill must be in low-income applicant's name); Seattle Public Utilities, Utility Discount Program, available at http://www.seattle.gov/util/MyServices/MyAccount/GetHelpwithUtilityBill/index.htm (to be eligible, water bill must be in low-income applicant's name); New York City Department of Environmental Protection, Home Water Assistance Program, available at http://www.nyc.gov/html/dep/html/customer_assistance/home_water_assistance_program.shtml (only homeowners with bill in their name eligible).

[229] California's Housing Future Report, *supra* note 21 at 15.

In contrast, most tenants living in non-profit owned affordable housing are already protected from high utility bills in various ways, whether the building is master- or submetered. The non-profit entity typically bears the expense of providing water. In those circumstances, we recommend that the Board provide a direct bill discount to the non-profit entity.

Individuals living in for-profit affordable housing, by contrast, are less insulated and receive only limited protections against high water bills. These protections often fail to make water affordable for the extremely low-income individuals residents who typically occupy these units. Accordingly, tenants living in for-profit affordable housing may require assistance similar to that provided to market-rate renters.

1. Recommendations for Tenant-Paid Water Costs in Market-Rate Housing

As noted above, although tenants in market-rate housing typically do not pay the water utility directly, they bear some or all of the cost of their water bill (and sometimes more). This section explains the difference in payment methods and offers recommendations for how the program can include all renters, regardless of how they pay for water. The first—and most obvious option—would be to have the landlord pass the benefits through to the tenant. However, given concerns that landlord-based subsidies will not reach the tenant as well as the reality of landlords overcharging their tenants for water, we suggest that the program provide a rebate directly to qualified tenants who apply.

a. How Do Tenants Pay for Water?

Renters living in market-rate housing pay for water through various means. Though rare, some multifamily renters do have individual meters. In this case, they directly pay the utility for the water and should receive the Program discount directly on their monthly bill. Most multifamily developments, however, are master metered,[230] and renters pay their landlord for water through rent or a monthly water charge in addition to rent. A 2004 study found that "[n]ationally up to 4% of multi-family residents are metered and charged for their consumption based upon actual volume of use." [231] In turn, about "85% of multi-family residents still paying for their water and wastewater as part of their rent, often referred to as in-rent.[232] These units may have higher rents than comparable units where water is passed on through a separate charge.

About 9 percent of renters "pay for their water through various allocation formulas and about 2% are billed through a combination of metering and allocation programs."[233] The most common type of water charge is a flat monthly fee, which does not track usage at all—and may end up overcharging tenants or charging them for someone else's usage. It also discourages conservation. One household could conserve water, but if the rest of the building does not, that household will not receive a monetary reduction on their bill. Tenants could also be charged for

[230] Peter W. Mayer, et al., National Multiple Family Submetering and Allocation Billing Program Study 2-3 (2004), available at http://www.allianceforwaterefficiency.org/WorkArea/DownloadAsset.aspx?id=704 [hereinafter Mayer Multifamily Submetering Study].
[231] *Id*. at xiii.
[232] *Id*.
[233] *Id*.

common area water and irrigation. Although conservation signals are important, we note that low-income households tend to use less water than high-income households.[234]

A more sophisticated iteration is the RUBS charge, which uses an allocation-based formula to bill residents for their estimated water consumption. The allocation formula can take into account factors such as dwelling unit square footage, number of bedrooms, number of occupants, number of bathrooms or number of fixtures. There are many third-party companies that advertise proprietary RUBS formulas to landlords and conduct the bill-back themselves.[235] RUBS charges present the same inequities as a flat charge, however, and may also result in hefty monthly administrative charges. These abuses are further detailed in Appendix VII.A. As a result, many states (not including California) regulate or prohibit RUBS billing practices. Thus, even though RUBS formulas rely on proxies for water consumption—theoretically more accurate than a flat water charge—the continued risk of over-charging tenants makes this system problematic for low-income renters.

Another type of water charge is submetering. Submeters fully capture water consumption that occurs downstream from a master meter.[236] If the multifamily building is submetered, the landlord receives the total water bill and uses a third party billing service to read the submeters and bill tenants for their water consumption. These third party billing services are often the same companies that offer RUBS bill-backs.[237] In addition to charging for water, these private third-party companies often levy hefty administrative fees, although recent legislation attempts to cap these fees.[238] Even though the tenant is paying a water charge theoretically tied to actual consumption, the tenant still has no contact with the utility. Utilities typically do not install or

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[234] *See e.g.,* Paul Rogers, "California drought: Big difference in water use between wealthy communities and everyone else," The Mercury News, June 20, 2015, available at http://www.mercurynews.com/2015/06/20/california-drought-big-difference-in-water-use-between-wealthy-communities-and-everyone-else/ (noting that "residents of San Lorenzo, a working-class Alameda County suburb along Interstate 880, use a mere 51 gallons of water per person a day. In Diablo, an affluent community just over the hills in Contra Costa County known for its country club and tree-lined private streets, residents use nearly seven times more water— 345 gallons per person per day"); Caroline Mini, *Residential Water Use and Landscape Vegetation Dynamics in Los Angeles* 22, 52 (2013) available at http://escholarship.org/uc/item/2mb3c373 (noting that "income is generally shown to have a positive and significant impact on residential water consumption" and finding that voluntary water reduction initiatives led to low-income people using less water and high-income earners using more water).

[235] *See e.g.*, Multifamily Utility Company, Inc., available at http://www.multifamilyutility.com/rubs.html ("While RUBS billing does not measure a tenant's exact usage, the common unit or units of measure that are used to allocate utility expense are based upon industry-wide statistics."); American Conservation & Billing Solutions, available at http://www.amcobi.com/index.php/utility-billing-services/ratio-utility-billing-services-rubs ("[RUBS is a] fast way to boost net operating income").

[236] Mayer Multifamily Submetering Study, *supra* note 230 at 6.

[237] *See e.g.*, Multifamily Utility Company, Inc., Customized Ratio Utility Billing Services, http://www.multifamilyutility.com/rubs.html (advertising a variety of customized Ratio Utility Billing Systems. . . based on a pre-calculated formula. The formula is determined based on several variables including: the number of occupants and square footage of the unit."); Multifamily Utility Company, Inc., Submetering, http://www.multifamilyutility.com/submetering.html (advertising "code-compliant submetering systems for both new construction and retrofit or replacement of existing systems" and their ability to "sell, install, read and service non-proprietary meter systems and electronics components from industry leading manufacturers. . ."); Guardian Water & Power, Sacramento Submetering & Utility Billing Services, http://www.guardianwp.com/sacramentosubmetering (advertising submeter sales and installation and Ratio Utility Billing Services for the Sacramento area).

[238] *See* Appendix VII.A, *infra*, for a further discussion.

conduct billing for submeters. Thus, for the purposes of the program, submetered tenants should be treated the same as tenants who pay for water in-rent or through a RUBS charge.

In sum, current methods of billing master-metered renters for water are imprecise. Unfortunately, renters bear the burden of this imprecision as they have little recourse to challenge unfair allocation formulas or hefty administrative fees. The variability of these charges is also particularly troubling for low-income renters, who, because of their limited economic means, need consistent monthly bills to make ends meet. And given that the vast majority of renters pay for water in-rent, most renters might not even know what percentage of the building's water expenses they are covering. As such, the Board should adopt a program design that reduces this variability through stable and transparent benefits.

b. Reaching Indirect Payers

There are two ways for the program to reach tenants who are not account holders with the utility: (1) through the landlord, or (2) through a rebate to the tenant. We recommend that the Board adopt the rebate because it prioritizes accessibility for renters. This emphasis on accessibility is consistent with California's recognition of the human right to water.[239] Given that most tenants pay for water through their rent, a direct rebate also enables the tenant to directly offset this cost. Finally, the state will only need to enforce the rebate option at the renter level, which is ultimately more administratively efficient than enforcement at both the landlord and renter level.

(1) Option 1: Landlord Pass-Through

Under the landlord pass-through approach, an eligible household applies to the entity that administers the Program; that entity notifies the landlord of the tenant eligibility and benefit. The utility discounts the master-meter bill each month and the landlord must apply that discount to the qualifying household's water charge—either a discount off their rent if they pay for water in-rent, or a discount off the water charge in a RUBS or submeter situation.

Although the landlord pass-through is currently the method for applying the CARE discount for renters living in multifamily buildings with submetered electricity, there are a variety of reasons this approach would be a poor fit for the program. First, CARE does not make a discount available to renters without submeters.[240] This is because electrical master metering is much less common than water master metering.[241] Because master-metered electricity is so

[239] *See* CAL. WATER CODE § 106.3.

[240] After the passage of CARE, the California Legislature passed AB 2104, which required the CPUC to develop guidelines for electrical utilities to deliver CARE to submetered tenants. Unfortunately, this legislation did not place an affirmative burden on the landlord to make that subsidy available. AB 2104 requires the CPUC to develop procedures to facilitate access to CARE for renters with electrical submeters. *See* AB 2014, Chapter 738, Statutes of 2006, available at http://www.leginfo.ca.gov/cgi-bin/statquery. The bill expired in 2008 and was not renewed. In order to receive a CARE discount, a tenant must complete a CARE application and return it to the utility serving the tenant's building owner, who is the customer of record. The utility then bills the building owner. The tenant who is enrolled in the CARE program, however, is entitled to the full discount. In re Low Income Energy Efficiency Programs of California's Energy Utilities, 2007 WL 4822510 (Cal.P.U.C.).

[241] Studies estimate that less than 4 percent of multifamily tenants pay for water based on consumption. *See* Mayer Multifamily Submetering Study, *supra* note 230 at xiii (2004). In contrast, electrical master metering is uncommon. *See* In re Low Income Energy Efficiency Programs of California's Energy Utilities, 2007 WL 4822510 (Cal.P.U.C.)

rare—and when a building is master metered for electricity there tend to be submeters—CARE is available to a wider class of customers than would be the case if the water program adopted this approach. Since most tenants pay for water in-rent,[242] the state would either need to undertake the significant administrative burden of ensuring that actual rental payments are being discounted, or exclude the vast majority of tenants from the program. To make the program available only to renters with water submeters—the CARE model—would be grossly under-inclusive of the 85 percent of multifamily renters who pay for water in-rent.[243]

Another drawback to the CARE approach is the uncertainty regarding whether the landlord will deliver the benefit. For-profit landlords unfortunately have a financial incentive to avoid doing so. Not only would this be difficult to monitor, but the program would need to prohibit landlords from charging a new administrative or billing fee or increasing the existing fee for administering the subsidy. The program would also need to include measures that make the landlords accountable to the utility and the courts for failure to deliver the subsidy to the tenant or for increasing the tenant's rent because of the subsidy. The tenant should also have a right to request copies of the master-meter bill to ensure that the landlord is not charging them more for water once they have secured the subsidy.

Even with penalties for landlord non-compliance, relying on landlords to deliver the subsidy is problematic. Landlords might withhold the subsidy from tenants who are behind on their rent or utilities payments. Given that RUBS bills can fluctuate significantly, a low-income household might quickly fall behind on those payments and lose out on the subsidy.

Finally, this option puts the burden on the low-income renter to lodge a complaint against the landlord. This burden on the tenant seems at odds with the human right to water in California. Low-income tenants are in a vulnerable position with respect to their landlords and are likely to lack the resources either to recognize when a complaint is justified or to engage in an intimidating legal process to claim their rights. In the CARE context, the Legislature put an affirmative obligation on mobile home park owners to deliver the discount to the renters; [244] however, no comparable obligation was placed on non-mobile home park landlords. Thus, it is difficult to know how well this program design works in the market-rate multifamily sector.[245]

Though we do not believe this option is the most effective, should the Board recommend this approach, the implementing legislation should include an affirmative obligation on the landlords to pass on the subsidy coupled with a judicial remedy for renters. For renters who pay for water in-rent, this obligation must include a discount on rent commensurate with the bill discount. However, we recommend that the Board adopt the second program option outlined below.

(PG&E has 188,367 master metered customers out of 5.4 million customers, SDG&E has 70,163 master metered customers out of 3.6 million customers).

[242] Mayer Multifamily Submetering Study, *supra* note 230 at xiii.

[243] *Id*.

[244] Mobile home park owners have an affirmative obligation to notice and pass on the CARE subsidy to submetered mobile home renters. *See* CAL. CIV. CODE § 798.43.1. This obligation does not exist in the non-mobile home context.

[245] Though this seems somewhat successful in the mobile home context, *see* Interview with Phoebe Seaton, Leadership Council, March 8, 2016, mobile home occupants have more protections against utility charges than multifamily market-rate renters, as discussed in Section V.B, which provides recommendations for mobile home residents.

(2) Option 2: Water Rebate to Renters

A simpler, uniform way to deliver the program subsidy to market-rate renters is through a water rebate program that provides the benefit directly to renters but requires landlords to make tenants aware of the program. Such a program would require the utility to publish an annual schedule of the Program benefit applicable to its jurisdiction. This schedule should list the benefit that is available based on household size. For example, assume the benefit equals 50 percent off the monthly service charge plus 55 gallons of water per person per day. The applicant applies for the program and receives the rebate directly. This is not unlike the federal Low Income Home Energy Assistance Program (LIHEAP) program, which provides block grants for states to distribute to qualifying households for energy costs.[246] In California, these grants are then distributed to local community service providers that distribute the funds directly in the community.[247] Unlike LIHEAP, however, which provides a one-time service,[248] the Program ideally should disburse the rebate monthly.

Sample Anytown, CA Utility District Water Rebate Schedule			
HH Size	Water Service Discount (per month)	Water Commodity Subsidy (per month)	Total Annual Rebate
1	$15.00	$6.00	$252.00
2	$15.00	$12.00	$324.00
3	$15.00	$18.00	$396.00
4	$15.00	$24.00	$468.00
5	$15.00	$28.00	$516.00
6	$15.00	$34.00	$588.00
7	$15.00	$40.00	$660.00
8	$15.00	$46.00	$732.00

Note: This chart is for informational purposes only and does not reflect actual utility rates. Actual utility rate costs are available in Appendix VII.B.

This program design has three key benefits: (1) accessibility; (2) consistency with the human right to water; and (3) administrative ease. A water rebate program design will be more accessible to low-income renters because the renter can directly access the rebate through the utility rather than rely on their landlord to deliver the benefit. Moreover, because the rebate program does not require landlord participation, the landlord will not know whether their tenants

[246] *See* California Department of Community Services and Development, *Low Income Housing Energy Assistance Program (LIHEAP),* http://www.csd.ca.gov/Services/HelpPayingUtilityBills.aspx.
[247] *See* California Department of Community Services and Development, *Find Services in Your Area*, http://www.csd.ca.gov/Services/FindServicesinYourArea.aspx.
[248] *See* California Department of Community Services and Development, *Low Income Housing Energy Assistance Program (LIHEAP),* http://www.csd.ca.gov/Services/HelpPayingUtilityBills.aspx.

are receiving the subsidy. Anonymity is an advantage as landlords might increase rent or RUBS charges if they know their tenants are receiving the subsidy. A rebate program is also accessible to undocumented people: because this program is not a tax credit, a household does not need to file taxes or have a taxpayer ID or Social Security Number in order to enroll in the rebate program.

The rebate structure is also arguably more accessible for renters who pay for water in-rent. Instead of having to make the indirect connection between a bill discount and a rental discount, giving them a direct subsidy most accurately aligns with the way they pay for water. The situation is similar for master-metered renters living with contaminated water systems. These renters might rely heavily on water sources outside the utility system, such as bottled water, to meet their water needs. An on-bill discount would not go as far in making water affordable for this population.

Finally, a water rebate program is more administratively efficient than the pass-through program design. Under the rebate program, the state need only ensure that the renter qualifies for the program. When the landlord has the onus of delivering the benefit to the renter, the state must enforce the program at both the landlord and the renter level. This means that the state would need to undertake the significant burden of ensuring that the landlord applies the subsidy to the tenant's water charge, RUBS or submeter billing, or their rent in addition to ensuring that the low-income renter actually qualifies for the program. Instead, the rebate design only requires audits at the tenant level.

The rebate can also be streamlined with existing public benefits programs for additional administrative ease. A qualifying family need only show proof of enrollment in CARE or another public benefits program that uses the 200 percent of FPL requirement to income qualify for the water rebate program. The utility could set up monthly direct deposits to program enrollees. Alternatively the Program could also link the remittance with a renter's Electronic Benefit Transfer (EBT) card.[249] Although not all households will be banked or have an EBT card, coordinating the delivery of the subsidy with existing public benefit programs could significantly ease the burden of a monthly Program distribution.

Alternatively, the utility could only administer the program once per year to reduce administrative costs. Many utilities already have annual water rebate programs in place for fixture upgrades and lawn replacement.[250] Admittedly, low-income people need a steady stream of income each month; annual lump sums are not as advantageous. However, given that the rebate amount is published annually, qualifying households can at least anticipate exactly what their benefit will be. The utility could distribute the rebate at key times when water consumption increases, for example, at the start of summer when kids are home from school. The utility could also administer the rebate at the beginning of the fiscal year, rather than at the end.

The Board should also closely consider the impact of the rebate benefit on household income to determine whether it would affect enrollees' ability to income-qualify for other public

[249] EBT cards are like debit cards for public assistance programs. Qualifying households receive monthly remittances from programs like Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF) on the electronic payment card that the household can then use at retailers. *See* California Electronic Benefit Transfer Client Website, https://www.ebt.ca.gov/caebtclient/reciplogin_client.jsp.

[250] *See e.g.*, Santa Clara Valley Water District, Landscape Conversion Rebates, available at http://www.valleywater.org/Programs/LandscapeRebateProgram.aspx; San Francisco Public Utilities Commission, Rebates and Incentives, available at http://sfwater.org/index.aspx?page=129.

assistance programs. These programs have complex and often interdependent income requirements or eligibility thresholds.[251] If the rebate pushed an enrollee's income above the threshold for other public assistance programs, that enrollee might lose access to those programs. To avoid this problem, the water rebate could be excluded from being considered income for purposes of determining eligibility for relevant public assistance program. For example, some public assistance programs currently exclude energy assistance payments from federal programs such as LIHEAP, although it is unclear whether that includes CARE.[252] Research into whether this exemption could include a statewide water rebate program is needed to ensure the rebate will not negatively impact public assistance program eligibility.

Another consideration is whether the subsidy will be considered income for tax purposes.[253] Though most households at 200 percent of FPL typically have little tax liability, the tax implications of a direct subsidy should be fully explored so as to not negatively impact low income families' eligibility for credits like state and federal Earned Income Tax Credit.[254] The state should explore the tax consequences of such a structure to avoid some of the unexpected federal tax liability encountered in the turf replacement rebate program.[255]

2. Recommendations for Non-Profit Affordable Housing

The program should also benefit tenants living in affordable housing developments, but because most non-profit landlords pay the full cost of water without any tenant contributions—unlike for-profit landlords—the program can best support affordability by providing the subsidy directly to non-profit landlords.

A direct subsidy to the non-profit makes sense, because the non-profit is providing a vital service and not recouping any water costs. The program should follow the CARE model and deliver the program discount directly to the non-profit operator on their monthly bill. Affordable

[251] For example, a slight increase to household income could render the household ineligible for other assistance programs. Public assistance programs calculate eligibility based on earned and unearned income. Earned income is typically earned wages from employment. Unearned income includes gifts, dividends, unemployment insurance, as well as income from other public benefit assistance programs.

[252] *See* CalFresh Handbook, Update #13-14 (Revised Oct. 28, 2013), pp. 19-10, 19-17, available at https://www.sccgov.org/ssa/foods/fschap19.pdf.

[253] The IRS typically does not classify cash rebates from sellers as income; however, there might be difficulty with classifying the water program rebate as a seller rebate. *See* Pittsburgh Milk Co. v. C.I.R., 26 T.C. 707 (1956) (holding that rebated amounts that were intended to reduce a list price to an agreed net price should not be treated as income). Even if the program is administered at the utility level, another issue is that there is no contract or sales agreement between the seller—the utility—and the rebate recipient—the renter.

[254] A four person household with two dependent children at 200% FPL would qualify for the earned income tax credit. *See* U.S. Internal Revenue Service, Do I Qualify for EITC?, https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/do-i-qualify-for-earned-income-tax-credit-eitc.

[255] There was some confusion when California rolled out its drought lawn replacement rebate program, which many utilities told customers would be federal income tax exempt. This unfortunately did not come to pass. *See* Contra Costa Water District, "Potential Federal Tax on Water Conservation Rebates," http://www.scpr.org/news/2016/03/17/58633/ca-congressmen-try-to-talk-uncle-sam-out-of-taxing/. The proposed water affordability program rebate, however, is distinct from voluntary efficiency rebates because it is a rebate on a commodity that the tenant is purchasing from the utility, albeit indirectly. Though master metered tenants do not have a contract with the utility because they are not account holders, they are still consumers of the utility's commodity—water. In contrast, the lawn rebate program provided a rebate for the purchase of a non-utility commodity—replacement turf or landscaping. This distinction could potentially justify different tax treatment and should be explored further.

housing operators must provide a utility allowance for every utility service that the resident pays directly.[256] But very few non-profit affordable housing operators are sub-metered, so very few tenants pay directly. And most operators do not—and cannot—pass on water costs to the tenant. First, the maximum rent requirement prohibits an affordable housing operator from raising rents to offset high water costs. In other words, non-profit affordable housing developers cannot capitalize water in-rent. Second, the LIHTC program prohibits the landlord from charging a tenant for any utility service that is not metered. [257]

Moreover, most, if not all, tenants of these properties would be individually eligible for the program.[258] Deed-restricted affordable housing operated by non-profit owners is typically financed with Low Income Housing Tax Credits (LIHTC), which require affordability restrictions to run for fifty-five years.[259] In a typical California LIHTC development, the developer can only charge rent levels set by the California Tax Credit Allocation Committee based on unit size and median income at the county-level.[260]

Non-profits who operate affordable housing without a deed-restriction also serve very low-income individuals, and do not pass along water costs. In large cities like San Francisco, the local Human Services Agency contracts with non-profits to operate housing without a deed restriction.[261] Many homeless persons are housed through contracts with these non-profits who lease and manage Single Room Occupancy Hotels (SROs) for formerly homeless individuals. Indeed, populations housed in these scenarios are often the neediest. Because the formerly homeless do not have the means to pay for utilities, the nonprofit pays the water bill directly from its operating funds.

There is good reason to support these non-profits in keeping units and utility costs affordable by providing them a direct subsidy. Non-profits are mission driven to construct, maintain, and preserve permanently affordable communities. Instead of taking a distribution from net operating income like for-profit Below Market Rate (BMR) and Section 8 landlords,[262]

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[256] *See* 4 C.C.R. §§ 10322(h)(20); 10377(c)(1). The Low Income Housing Program is implemented by the states but it is actually a federal program sponsored by the Internal Revenue Service (IRS). *See* 26 U.S.C.A § 42(g)(2)(B). Appendix VII.D, *infra*, further details how these rent calculations are administered.

[257] *See* 77 F.R. 46987, available at https://www.federalregister.gov/documents/2012/08/07/2012-19179/utility-allowances-submetering (allowing non-profit owners to charge LIHTC tenants for submetered service because it is based on actual consumption, but not allowing water charges like Ratio Utility Billing Systems which are estimations).

[258] LIHTC maximum rents are based on Area Median Income, which takes into account costs of living. This means that in high-cost areas, AMI will be higher than 200% of the FPL, the eligibility cut-off in AB 401. For this reason, we support the recommendation of the Pacific Institute that the Board use AMI in the nine highest cost counties in the state for eligibility purposes. Regardless of the eligibility threshold, however, the Board should nevertheless follow the model of CARE, which makes the electricity discount directly available to non-profit affordable housing operators.

[259] *See* 4 C.C.R. § 10325(g)(1)(I).

[260] For more information, refer to Appendix VII.D, *infra*.

[261] *See* Interview with Liz Pocock, Director of Housing Development and Asset Management at Episcopal Community Services of San Francisco, February 2, 2017 (Episcopal Community Services in San Francisco houses formerly homeless individuals in non-deed-restricted buildings). Swords to Ploughshares, an organization that houses veterans, also houses tenants in in non-deed-restricted buildings. *See* Swords to Ploughshares, Supportive Housing: Transitional and Stabilization Housing, available at https://www.swords-to-plowshares.org/housing.

[262] Distributions for nonprofit owners are determined by the various regulatory agreements recorded on title by lenders. This varies depending on the type of financing. The California Department of Housing and Community Development, for example, stipulates that the nonprofit sponsor can only retain a maximum of 50 percent of net

non-profit owners invest net operating income back into the building to ensure the units remain affordable beyond the date of the deed expiration.[263] Freeing up more net operating income means more investment in capital improvements, supportive services, and amenities like washers and dryers.[264]

The bill discount could be calculated in a variety of ways. The utility could give the non-profit a discount on a certain number of gallons per low-income person housed. This would avoid subsidizing the costs of landscaping. A percentage discount off the bill—the current approach for CARE—is also an option.

3. Recommendations for For-Profit Affordable Housing

Renters living in for-profit owned affordable housing should also receive a direct rebate. While the rebate could be adjusted downward because these renters already receive Utility Allowances (UAs),[265] for water, we discourage this approach due to the wide disparities in UAs across the state as well as the potential for Section 8 renters to be paying for leaks and inefficient fixtures that are the landlord's responsibility. A uniform renter rebate also offers administrative efficiencies. This section discusses the particulars of for-profit owned affordable housing programs and problems with UAs. We conclude with recommendations to tailor the rebate program to this population.

For-profit affordable housing encompasses tenants with Section 8 portable vouchers living in market-rate units and tenants living in deed-restricted Below Market Rate (BMR) units. Section 8 vouchers subsidize a tenant's rent in a market-rate unit.[266] BMR units refer to deed-restricted affordable housing that a market-rate developer must construct as a condition of approval—often referred to as inclusionary housing.[267] A full description of these programs is available in Appendix VII.E.

Though these are two distinct affordable housing programs, the program can treat them similarly for two reasons. First, landlords of Section 8 and BMR units can fully pass on the costs of water to their tenants. Second, if the landlord in either of these programs chooses to pass on

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income subject to Department approval. *See* Uniform Multifamily Regulations, codified at 25 C.C.R. § 8314(a)(2). San Francisco Mayor's Office of Housing and Community Development Guidelines stipulate that two-thirds of residual receipts are payable to the City and County. *See* San Francisco Mayor's Office and Housing and Community Development, Residual Receipts Policy (2016), http://sfmohcd.org/sites/default/files/Documents/CURRENTResidualRecPolicy%202016.pdf.

[263] This typically occurs through lender-mandated payments to operating reserves and replacement reserves with fixed annual contributions per unit. The operator cannot draw down on these funds without prior lender approval. *See e.g.,* Uniform Multifamily Regulations, codified at 25 C.C.R. §§ 8308, 8309.

[264] The Board could also consider conditioning receipt of the program benefit on the non-profit entity agreeing to invest the savings in this way, though it would need to build in an enforcement mechanism.

[265] Utility Allowances are a schedule of utility rates that the landlord must offset against the total rent payment, set by each Public Housing Authority. *See* U.S. Department of Housing and Urban Development, Utility Allowances, https://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/phecc/allowances [hereinafter HUD Utility Allowances].

[266] *See* Department of Housing and Urban Development, Housing Choice Voucher Fact Sheet, available at https://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/about/fact_sheet [hereinafter HUD Housing Choice Voucher Fact Sheet]; *see also* 24 CFR 982.

[267] *See e.g.*, San Francisco Mayor's Office of Housing, Inclusionary Housing BMR Rental Program, available at http://sfmohcd.org/INCLUSIONARY-HOUSING-BELOW-MARKET-RATE-BMR-RENTAL-PROGRAM.

the cost of water to the tenant, the landlord must offset the tenant-paid rent with a UA, which is intended to substantially reduce the amount of money the tenant must spend on water.

Section 8 and BMR landlords can pass on the cost of water in almost all the ways a market-rate landlord would, except through in-rent capitalization. If the unit is individually metered, the landlord can require the tenant to pay the bill to the utility. If the unit is master metered, the landlord can recover a monthly water charge like RUBS or submeter the unit and bill the tenant back directly for their water usage. Because BMR rent levels are set by the local jurisdiction, however, a BMR owner cannot charge a higher rent to cover the cost of water.[268] Though a Section 8 landlord technically can capitalize water into rent (because their rent levels are not regulated by the government), the tenant-paid portion is capped at 30 percent of household income, with certain exceptions.[269]

If the landlord chooses to pass on the costs of water to the tenant, the landlord must give the tenant a UA.[270] A UA is a schedule of utility rates that the landlord must offset against the total rent payment.[271] County Public Housing Authorities calculate the UA rates and publish annual rate schedules for each type of tenant-paid utility, including water, electricity, garbage, gas, etc. Because the county sets the UA level, allowances vary significantly across California. In the Section 8 context, the UA reduces the tenant-paid portion of the rent below the 30 percent of income threshold. In the BMR context, the utility allowance reduces the rent levels set by the local jurisdiction.

Although the UA provides some benefit to tenants in for-profit affordable housing, it still leaves water unaffordable for many people who reside in these units. Section 8 recipients are typically extremely low income—defined as 30 percent of local Area Median Income,[272] which

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[268] *See e.g.,* City and County of San Francisco Inclusionary Affordable Housing Program Monitors and Procedures Manual at 49, available at http://sfmohcd.org/sites/default/files/FileCenter/Documents/6983-Inclusionary%20Procedures%20Manual%20051013.pdf [hereinafter SF Inclusionary Affordable Housing Manual]; City of Pasadena Inclusionary Housing Regulations at 12, available at http://www.tbrpc.org/resource_center/pdfs/housing/Inclusionary_Zoning_Reg.pdf [hereinafter Pasadena Inclusionary Housing Regulations]; City of Berkeley Program Guidelines and Operational Manual: Inclusionary and Below Market Rate Housing Program at 19, available at http://www.ci.berkeley.ca.us/uploadedFiles/Housing/Level_3_-_General/BMR%20RENTAL%20PROGRAM%20GUIDELINES_Date-November%202016%20clean.pdf [hereinafter Berkeley BMR Manual].

[269] *See* HUD Housing Choice Voucher Fact Sheet, *supra* note 266. The one exception is when Section 8 renters pay the cost of water as capitalized into rent. Because this is technically not a tenant-paid charge, the tenant does not receive a UA. Though the tenant still has protection against these water costs—the tenant-paid portion is capped at 30 percent of their income—in high cost jurisdictions where the prevailing market rate exceeds the voucher payment standard, the tenant must pay the difference in addition to 30 percent of their income. Thus, if rents exceed the payment standard due to the high water rates capitalized in their rent, the tenant could be technically paying for their water without receiving a UA offset. It's unclear how frequently this situation occurs, but it is likely a reality for many Section 8 renters in high-cost jurisdictions. Although technically, the tenant-paid share is never supposed to exceed 40 percent of household income. 24 CFR § 982.508.

[270] For BMR UA requirements, *see e.g.,* SF Inclusionary Affordable Housing Manual, *supra* note 268 at 49; Pasadena Inclusionary Housing Regulations, *supra* note 268 at 12; Berkeley BMR Manual, *supra* note 268 at 19. For Section 8 UA requirements, see 24 CFR § 982.517.

[271] *See* HUD Utility Allowances, *supra* note 265. A sample UA Schedule is available in Appendix VII.C, *infra*.

[272] Area Median Income, or AMI, is an income measure used by the U.S. Department of Housing and Urban Development to determine income eligibility for affordable housing programs. It "is the household income for the median [] household in a region." Brian McCabe, Greater Greater Washington, The Area Median Income (AMI), explained (Sept. 1, 2016), available at https://ggwash.org/view/42671/the-area-median-income-ami-explained.

in most California jurisdictions is far below 200 percent of FPL.[273] Because many landlords do not want to rent to Section 8 voucher holders due to stereotypes or bureaucratic hurdles,[274] Section 8 renters frequently occupy the lowest quality housing stock in the jurisdiction—the units that landlords have difficulty renting to unsubsidized tenants. Though a habitability inspection is a prerequisite to the tenant occupying the unit,[275] these inspections do not catch leaks and inefficient fixtures that increase the tenant's water bill.[276] For these reasons, Section 8 tenants are often paying much higher water bills than other tenants. Unaffordable bills can also jeopardize access to affordable housing and place vulnerable families at risk of homelessness, because failure to pay utility bills may result not only in eviction but the permanent loss of their Section 8 voucher. It is accordingly of particular importance that the program reach this group.

Even for BMR residents, who typically occupy newer housing stock, Public Housing Authorities are often lax in updating UA schedules to reflect the increasing costs of water in California. In Alameda County, where water costs are not disproportionately high compared to the rest of the state, the water UA for a 2-bedroom unit is $52 per month.[277] Yet in Santa Barbara County and San Joaquin County, where water costs are some of the highest in the state, the water UA for a 2-bedroom unit ranges from $6 to $32 a month.[278]

Accordingly, low-income people who receive UAs should still be eligible for the program; however, the Board should decide whether tenants who receive a UA should get the same benefit as unsubsidized tenants. The federal LIHEAP program, for example, allows states to decide whether to give the energy assistance to people who receive UAs.[279] Some states give the same benefit and others reduce the benefit commensurate with the amount of the UA.[280] In California, CARE is available to households that receive a UA; in fact, some Housing Authorities have lowered the electricity UA with the assumption that the recipient has already enrolled in CARE.[281] Nevertheless, the Board should be mindful of disparities between UA levels and prevailing water costs in the state.

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[273] *See* 24 CFR § 982.201(b)(2).

[274] *See e.g.,* The Orange County Register, "No voucher, no vacancy, no help," October 2, 2016, available at http://www.ocregister.com/articles/voucher-730796-section-county.html; SF Gate, "Section 8 Evictions in SF Hit Home," May 13, 2014, available at http://www.sfgate.com/bayarea/article/Section-8-evictions-in-S-F-hit-home-5472656.php.

[275] 24 CFR § 982.405.

[276] Conservation incentives are of limited concern in this context. First, the burden for failing to fix leaks should be on the landlord, not low-income renters who do not have the ability to address them. Second, studies show that low-income consumers typically use far less water.

[277] Housing Authority of the County of Alameda, Utility Allowance, available at http://www.haca.net/index.php/participants/utility-allowance. For a comparison of water costs across California using published rates, see Appendix VII.B, *infra*.

[278] Santa Barbara County Housing Authority, Utility Allowance Schedule, available at http://hacsb.org/download/meetings-2015/items/december/item_X_III_2015_12_02.pdf; San Joaquin County Housing Authority, Utility Allowance Schedule, available at http://hacsj.com/housing/docs/Utility_Allowances_eff_1_1_2017.pdf.

[279] *See* LIHEAP Clearinghouse, Subsidized Housing and LIHEAP, available at https://liheapch.acf.hhs.gov/pubs/440.htm.

[280] *See id*.

[281] *See e.g.*, Upland Housing Authority, Section 8 Utility Allowances, available at http://www.uplandhousing.com/Section8UtilityAllowances.htm.

4. Summary of Recommendations for Multifamily Renters

- **Summary of Recommendations for Tenant-Paid Water Costs in Market-Rate Housing**
  - ✓ Low-income renters in market-rate housing should receive a direct water rebate. Ideally, this rebate should be disbursed monthly.
    - ❖ Streamlining delivery with other public assistance programs will reduce administrative costs of monthly remittances.
    - ❖ This program design is preferable to relying on the landlord to deliver the subsidy both from a human rights and administrative efficiency perspective.
    - ❖ The direct subsidy most accurately reflects that most master-metered renters pay for water in-rent rather than monthly charges.
  - ✓ Before program implementation, the Board should examine study the tax and public benefit eligibility implications to minimize unexpected negative impacts on enrollees.
  - ✓ If the Board chooses to pass the subsidy through the landlord, the Legislature should amend the California Civil Code to require market-rate landlords to pass on the subsidy to tenants—including a rental discount where applicable—and to give tenants a judicial remedy.

- **Summary of Non-Profit Affordable Housing Recommendations**
  - ✓ Non-profit affordable housing operators that do not charge their tenants for water should be eligible for a program discount on their monthly bill.
    - ❖ This includes non-profit operators of deed restricted housing as well as non-profits who operate affordable housing through a contract with local government or human service agency. Though this type of housing might not be deed restricted, it often serves some of the most vulnerable populations, including formerly homeless persons and veterans.
    - ❖ The on-bill discount can be calculated either as a discount on a certain number of gallons per low-income person housed or a flat percentage discount off the bill (following CARE).
  - ✓ Non-profit affordable housing operators that do charge their tenants for water should not receive the monthly on-bill discount.
    - ❖ In this case, the subsidy should flow directly to qualifying low-income residents in the same manner as for Section 8 or BMR tenants who receive UAs.

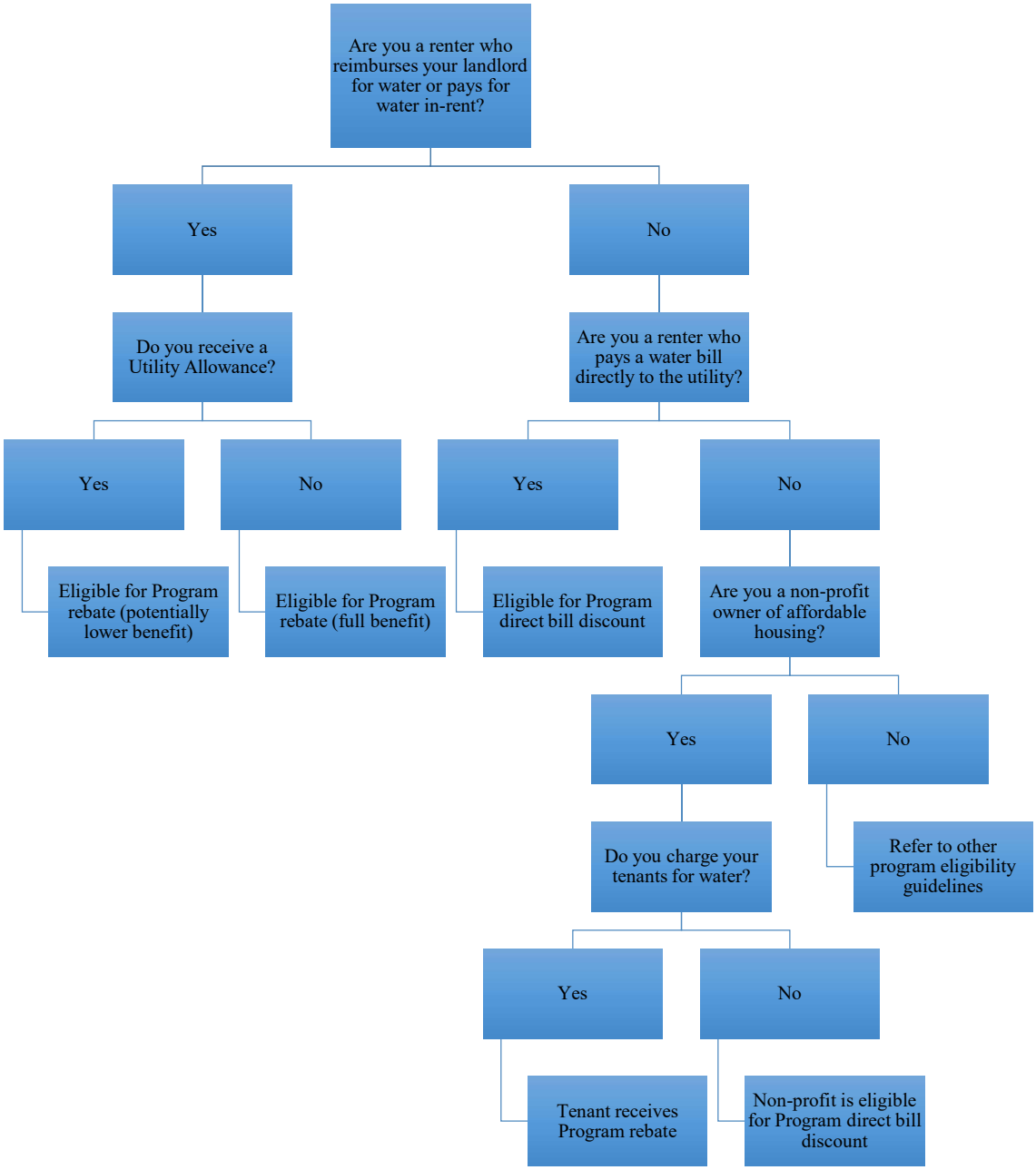
- **Summary of For-Profit Affordable Housing Recommendations**
  - ✓ Low-income renters living in Section 8 or BMR units should receive the program rebate directly.
    - ❖ While the rebate could be adjusted downward because these renters already receive a UA for water, we discourage this approach due to the wide disparities in UAs across the state as well as the potential for Section 8 renters to be paying for leaks and inefficient fixtures that are the landlord's responsibility. A uniform renter rebate also offers administrative efficiencies.
  - ✓ For-profit affordable housing operators should not be eligible for any type of on-bill discount.

- ❖ For-profit affordable housing operators pass on the cost of water in-rent or through RUBS or other unmetered water charges. Savings from water bills are not re-invested in the building operations or lowering rents.[282]

- **Related Program Recommendations for Master-Metered Renters**
  - ✓ The program should include water audits to ensure that leaks or highly inefficient fixtures are not driving up the cost of the renter's water bill.
    - ❖ These audits should include linkages to existing fixture rebate programs.
    - ❖ Requiring the renter or landlord to upgrade their fixtures should not be a precondition of enrollment. Such a requirement would constitute a significant barrier to renter access. Where a tenant pays for water, a landlord has little incentive to upgrade fixtures since the resulting water savings do not benefit the landlord's bottom line. Thus, a landlord likely would not invest money in upgrading fixtures simply to give their tenant access to the program.
  - ✓ To ensure program effectiveness, the Board should also consider advocating for the following:
    - ❖ Regulation of RUBS and other abusive water charge practices. Landlords overcharging tenants through RUBS or flat monthly water charges often exacerbate water unaffordability. To ensure the program is not subsidizing these abusive practices, these types of billing must be regulated.
    - ❖ The recently passed SB 7 applied certain protections to renters with submeters, detailed in Appendix VII.A. These types of protections minimize renter's water bills and should be available to renters writ large as part of AB 401 implementation.
    - ❖ Updating UAs to reflect the high costs of water in California and to ensure compliance with the human right to water.

[282] While we encourage the Board to consider offering a subsidy to for-profit affordable housing operators on the condition that the savings be invested in the building or passed along to tenants, in either case, eligible tenants of such properties should receive a direct subsidy.

- **Eligibility Flow Chart for a Low-Income Household**



B. REACHING MOBILE HOME RESIDENTS

Like multifamily buildings, most mobile home parks are master metered for water.[283] This means that mobile home renters pay water either in-rent or through a monthly water charge, such as a RUBS or a submeter charge. Certain affordable housing program overlays, such as UAs in the Section 8 context,[284] might also apply to mobile home dwellers, although this is much less frequent than in the multifamily context. While metering schemes are similar to multifamily, there are important differences between these types of housing that must inform program design.

Understanding the specific needs of mobile home residents is critical to designing a program that is consistent with the human right to water. About half a million Californians live in prefabricated housing like mobile homes.[285] Mobile homes are typically located in mobile home parks. Where mobile home parks are up to current health and safety standards, these parks function as small neighborhoods or subdivisions with modest lots served by streets, lighting, and utility infrastructure. Unfortunately, many mobile home parks do not have adequate access to infrastructure, including basic sanitation. These mobile home parks are often unpermitted and at risk of closure by local enforcement agencies and the state.

With average square footage costs about 20 percent less than a conventional home, mobile homes are a critical source of affordable housing in California.[286] As such, they house some of California's most vulnerable populations. In the Eastern Coachella Valley, mobile homes are the de facto source of affordable housing for farmworkers and their families.[287] Senior citizens on fixed incomes also live in mobile home parks. 34 percent of tribal members reside in mobile homes, many of which are substandard, lacking basics like plumbing and kitchens.[288] These mobile home communities are often located in rural areas where water delivery costs and contamination rates are high.

This section first briefly examines the regulations underscoring the landlord-tenant relationship in the mobile home context. Though the legal standards for mobile home park owners differ significantly from the standards that govern market-rate multifamily owners, because of the similarity in metering schemes, we conclude that the program should use the same rebate design for mobile home renters as multifamily renters. Finally, we conclude with specific recommendations for implementing the program in the mobile home context to ameliorate the systemic water issues this population faces.

1. Regulatory Background

The landlord-tenant relationship in a mobile home park differs from conventional housing. A resident of a mobile home park might own the mobile home structure but lease the

[283] *See* California State Senate, *What Every Mobile Home Owner Should Know* 3, http://sunnyvale.ca.gov/Portals/0/Sunnyvale/CDD/Housing/for%20Home%20Owners/CA%20Senate%20Mobilehomes.pdf.
[284] *See* U.S. Department of Housing and Urban Development, Housing Assistance Payments Contract Manufactured Home Space Rental, https://portal.hud.gov/hudportal/documents/huddoc?id=52642.pdf.
[285] California's Housing Future Report, *supra* note 21 at 15.
[286] *Id*.
[287] LA Times Coachella Valley Trailer Parks Article, *supra* note 26.
[288] California's Housing Future Report, *supra* note 21 at 21.

land from the park owner. Thus, a resident could be both a homeowner and a renter simultaneously. In other cases, the resident might lease both the structure and the land from the park owner or a third party.

Problems arise because mobile homes are not really that mobile. Eviction or park closures impose the extraordinary costs of moving the mobile home structure and finding another park with vacant lots. With land values at all-time highs in California, park closures and conversions are commonplace. In the last decade, California has lost 4,792 affordable mobile home park lots.[289] In Los Angeles County alone, nearly 25,000 lots are at risk.[290] Finding a vacant, affordable lot is no easy task.

In response to the unique ownership and rental structure of mobile home communities, California enacted a series of laws that regulate the park owner and tenant relationship as well as health and safety standards specific to this type of housing. California provides mobile home occupants with more protections than a renter in a market-rate multifamily building; however, utility abuses are still not uncommon.

a. Mobile Home Residency Law

The Mobile Home Residency Law[291] regulates the landlord-tenant relationship in a mobile home park, including rent increases, rental agreements, termination, and re-sale of the mobile home unit. Unlike the Mobile Home Act, discussed next, state agencies do not enforce the Mobile Home Residency Law. Instead, tenants must sue in court. After enacting CARE, the California Legislature amended the Mobile Home Residency Law to require landlords to notify tenants about the program and to pass through the full amount of the subsidy to qualifying tenants.[292] A search of Westlaw and Lexis does not reveal any cases where failure to pass through CARE was a cause of action. However, many advocates assume that the notice requirement and threat of legal action keeps mobile home park owners compliant.[293]

b. Mobile Home Act

The Mobile Home Act regulates health, safety, and building standards for mobile home parks.[294] The Department of Housing and Community Development (HCD) and/or a local enforcement agency enforces these standards.[295] Mobile home parks that conform to these codes can obtain a permit to operate, and a violation can result in a park closure.[296] Nevertheless, unpermitted mobile home parks are a key source of housing for farmworkers in the Eastern

[289] Kramon, Katie. "California's affordable mobile home parks vanishing." Peninsula Press. March 11, 2015. http://peninsulapress.com/2015/03/11/mobile-home-parks-california/.
[290] *Id*.
[291] CAL. CIV. CODE §§ 798 *et seq*.
[292] CAL. CIV. CODE § 798.43.1.
[293] *See* Interview with Ilene Jacobs, Director of Litigation, Advocacy and Training for California Rural Legal Assistance, March 3, 2017 [hereinafter Ilene Jacobs Interview]; Interview with Professor Robert Solomon, Co-Director, Community & Economic Development Clinic at University of California Irvine Law School, March 30, 2017.
[294] *See* 25 C.C.R. § 1000 *et seq*.
[295] *See* 25 C.C.R. § 1004.
[296] *See* 25 C.C.R. § 1006.5.

Coachella Valley, and other populations.[297] Many of these mobile home parks were never intended to be permanent, but a lack of affordable housing has left residents with no alternative.[298] Many of these parks lack safe drinking water, basic infrastructure, and reliable electricity.[299] While some park owners extract money from the parks without investing in improvements, often the owners of the parks are low-income farmworkers themselves who lack the funds to upgrade the park to current code standards.[300] In some of these communities, water is not even plumbed directly to the units.[301]

c. Public Utilities Commission

Most mobile homes are master metered and submetered for utilities like electricity, gas, and water. Under the California Public Utilities Code, any private party who "sells, leases, rents, or delivers water to any person . . . is a public utility" subject to regulation by the CPUC.[302] The Code exempts mobile home park owners from public utility status provided that (1) the park owner has submetered water connections to all the lots, and (2) the park owner charges the same rate that the resident would pay if they received water directly from utility.[303]

Utility pass-through abuses, however, are common in mobile home parks.[304] To challenge a park owner who is overcharging for water or providing inadequate water service, tenants can file a complaint with the CPUC.[305] To qualify to bring this challenge, however, the CPUC requires that the complainant have been a park resident for at least five years and represent at least 10 percent of the park's water service connections.[306] Initially, the law was unclear as to whether residents were entitled to restitution. In light of this ambiguity and the ongoing imposition of unreasonable water rates in the Coachella Valley,[307] the California Legislature enacted AB 1830. AB 1830 amended the Public Utilities Code to require retroactive reimbursement if CPUC finds that the rates charged were unreasonable.[308]

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[297] LA Times Coachella Valley Trailer Parks Article, *supra* note 26.
[298] *Id*.
[299] *Id*.
[300] *Id*.
[301] *See* Christian Mendez*, Drinking the Fruits of Their Labor: Accessing Potable Water in the Eastern Coachella Valley,* KCET, https://www.kcet.org/shows/departures/drinking-the-fruits-of-their-labor-accessing-potable-water-in-the-eastern-coachella.
[302] CAL. PUB. UTILITIES CODE § 2701.
[303] CAL. PUB. UTILITIES CODE § 2705.5.
[304] *See* Ilene Jacobs Interview, *supra* note 293; *Hernandez v. Sunbird Mobile Home Park*, No. 09-11-019, 2012 WL 681666 at *44 (Cal P.U.C. February 16, 2012) (finding unjust and unreasonable water rates and inadequate water service due to arsenic contamination).
[305] CAL. PUB. UTILITIES CODE § 2705.6(a)(1).
[306] CAL. PUB. UTILITIES CODE § 2705.6(a)(1)-(3).
[307] Bernice Yeung, "Bill aims to improve water rights for mobile home park residents." California Watch. August 31, 2012, available at http://californiawatch.org/dailyreport/bill-aims-improve-water-rights-mobile-home-park-residents-17728; Mobile Home Park Water Rates Protection a Positive Step Forward, The California Endowment Press Release, available at http://tcenews.calendow.org/releases/mobile-home-park-water-rates-protection-a-positive-step-forward.
[308] CAL. PUB. UTILITIES CODE § 2705.6(e).

The CPUC has held that it has jurisdiction over unreasonable water charges only where the mobile home park itself obtains water from CPUC-regulated water utilities,[309] which do not include public utilities or special water districts.[310] Unfortunately, the CPUC does not have jurisdiction in all instances of utility exploitation, which further complicates tenants' abilities to hold their landlords responsible.[311]

2. Program Recommendations for Tenant-Paid Water Costs in Mobile Home Parks

The Board should calibrate its program recommendations to the specific challenges facing low-income mobile home tenants. One potential design is to adopt the CARE model of delivering the subsidy to the landlord and requiring the landlord notice and pass through the subsidy to qualifying tenants. This design raises the same concerns as in the multifamily context. First, it will ignore the affordability needs of mobile home renters who pay for water in-rent, unless there is an affirmative obligation to discount rent, not just monthly water charge payments. Second, water, unlike electricity, is a human right recognized by statute in California. The Legislature should place a premium on access for this reason. Water charge abuses are not uncommon in mobile home communities. Because water is a human right, relying on landlords to pass through the subsidy—even with affirmative legal obligations—is troubling. Finally, this program design will not help the affordability needs of mobile home park tenants who lack potable plumbed water and instead must resort to buying bottled water. A direct rebate will provide assistance for the ways Californian mobile home residents *actually* purchase water. For further administrative efficiency rationales, please refer to Section V.A that details recommendations for multifamily renters.

For these reasons, we recommend the Board adopt the water rebate program outlined in the master-metering section. This rebate must be available to low-income mobile home residents regardless of whether they live in a permitted or unpermitted park. Additionally, because of the prevalence of unpermitted parks, the Board should consider earmarking funds to help these parks owners get their water systems code compliant. As discussed in Section IX.B of this report, consolidation, which can actually lead to higher water costs, should not be the automatic answer for these communities. Where consolidation occurs, the Board may want to help negotiate the terms and protections with the utility to ensure mobile home communities do not pay higher rates than people residing within the boundaries of the municipal system. Likewise, we suggest the Board ensure that connection fees or other costs imposed upon mobile home park renters as a result of a consolidation are kept to affordable levels. Because mobile home park residents often have no other housing options, we must be careful to avoid adding to the financial burden of operating these parks or contributing to closure efforts.

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[309] CPUC, *In re Rate, Charges, and Practices of Water and Sewer Utilities Providing Service to Mobilehome Parks*, D.01-05-058 (2001), as modified by D.01-10-068 (2001).)

[310] Yucaipa Mobilehome Residents' Ass'n v. Knollwood Mobile Home Estates Ltd., no. 01-06-008, 2003 WL 35996 (Cal. P.U.C. January 30, 2003).

[311] *See* Ilene Jacobs Interview, *supra* note 293.

3. Summary of Recommendations for Tenant-Paid Water Costs in Mobile Home Parks

- Low-income renters in master-metered mobile home parks should receive a direct water rebate regardless of whether they live in a permitted or unpermitted park. Ideally, this rebate should be disbursed monthly as for multifamily market-rate renters.
  - ✓ A direct rebate is particularly important in the mobile home context, where water cost markups are not uncommon and a large portion of renters lack access to safe, decent affordable water. These renters have to purchase water outside their system—purchases that wouldn't be reflected on a utility bill.
  - ✓ A rebate program recognizes that many renters pay for water in their rent rather than as an additional water charge.
- Tax and public benefit eligibility implications of this program design should be explored and minimized before program implementation.
- If the Board chooses to adopt the CARE pass-through method, the Legislature should amend the Mobile Home Residency Law to require park owners to pass on the subsidy to tenants and to give tenants a judicial remedy.
- Mobile home renters who also have Section 8 vouchers and receive UAs should be treated the same as multifamily renters who receive UAs.
- The Board should consider providing assistance to unpermitted mobile home parks to put their water systems in code compliance.
  - ✓ The program should not add to the financial obligations of unpermitted parks or require any upgrades as conditions of program enrollment. The program should be implemented so that it does not increase the risk of park closures.
- Given that many mobile-home communities are located in situations where consolidation with a neighboring municipal system is feasible, the Board should take steps to ensure consolidation does not negatively affect affordability, including by (1) negotiating on behalf of these mobile home communities to obtain favorable rates and (2) ensuring that connection fees or other costs imposed upon mobile home park renters as a result of the consolidation are kept to affordable levels.

VI. ADDRESSSING UNIQUE AFFORDABILITY AND ACCESS CONCERNS FOR CALIFORNIA'S HOMELESS POPULATION

Approximately 29,000 people in California are chronically homeless.[312] These people often rely on public and private facilities for access to life-sustaining resources, but adequate access to affordable water and sanitation remains a chronic problem for the state's homeless population.[313] Homeless persons' economic status deprives them of both physical and economic access to water, making it particularly important that the program provide them with assistance. However, because homeless persons do not typically receive a water bill, the program will need to utilize measures other than direct rate assistance to improve the ability of homeless persons to afford and access water. After consulting with multiple homeless service providers and homeless persons, we recommend, among other things, that the program subsidy be extended to facilities that provide reliable access to free water and/or sanitation to homeless persons. We also note that UC Berkeley Environmental Law Clinic will be continuing its work in this area this fall, and may have further suggestions.

A. ADDRESSING INSUFFICIENT ACCESS TO FACILITIES OFFERING WATER AND SANITATION SERVICES

During our consultation with homeless persons, they reported that water (both for drinking and for hygiene) and sanitation is inaccessible. This is due to a scarcity of shelters and similar facilities that provide free water and sanitation, space limitations within those facilities, and concomitant long walking distances between facilities.[314] For example, homeless persons indicated that they might spend a large portion of a day traveling to a service center that provides showers only to find the facility already at capacity and unable to serve them. They added that the scarcity and geographic spread of services forced them to make difficult choices between basic needs, such as seeking overnight shelter or a meal versus waiting in line for a shower. These opportunity costs are largely invisible to non-homeless individuals, but the time, transportation costs, and other sacrifices necessary to access these scarce services significantly burden the ability to meet basic needs and progress towards permanent housing and/or employment. Our interviewees also noted that the few available facilities were not always open during their posted hours, and this further increases the cost of seeking services. Finally, they reported difficulties in accessing water at shelters in off-hours or on weekends; most facilities close at night and therefore do not fully meet sanitary needs. And although some shelters are open at night, bathroom access is limited to those who have a bed there.

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[312] *See The 2016 Annual Homeless Assessment Report (AHAR) to Congress*, THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (Nov. 2016), available at https://www.hudexchange.info/resources/documents/2016-AHAR-Part-1.pdf. However, 2017 estimates indicate that this number may have increased.

[313] The Environmental Law Clinic will be exploring local approaches to improving homeless access to water and sanitation during the Fall 2017 semester and will communicate any relevant findings to the Board as our work in this area continues.

[314] Interview with homeless guests of Loaves & Fishes, in Sacramento, California. (Feb. 2, 2017) [hereinafter Loaves & Fishes Interview]. In Sacramento, facilities providing access to hygiene and sanitation (bathrooms and showers) are scattered throughout the city, which raises transportation as an added barrier and cost for homeless persons to access these services. Additionally, interviewees reported that existing facilities are insufficient to meet the need and that individuals had experienced long wait times or had been turned away when trying to access these services.

The lack of access to water disproportionately affects disabled, elderly, Latinx, and/or female homeless persons, and other vulnerable groups. Well-respected homeless advocate Rob Robinson was once homeless and recounts that gaining access to water and sanitation requires ongoing problem solving due to the scarcity of facilities to meet the basic daily needs of homeless persons. This poses an added obstacle to accessibility for persons with mental disabilities.[315] The scarcity and geographic spread of facilities also poses an additional barrier to physically disabled homeless individuals for whom travel or waiting in long lines is burdensome.

Elderly persons, in turn, may suffer from physical conditions that require frequent water intake and urination. As a result, they are at increased risk of health crises due to dehydration and inadequate access to water and sanitation.[316] Likewise, Latinx persons are more likely to suffer from diabetes than other ethnic groups, and diabetes requires higher water intake and more frequent urination.

Homeless women face particularly stark gendered impacts of the lack of access to water and sanitation that frequently accompanies homelessness in California. Not only do homeless women suffer from dehydration and the inability to maintain hygiene, they also risk criminal charges and sexual violence when forced by the lack of public restrooms to relieve themselves in public. Homeless women report that due to their fear of assault, they deliberately limit water intake in the afternoon to avoid having to relieve themselves in the open at night when public restrooms are unavailable. Limiting water consumption in this way results in increased incidence of urinary tract infections and other dehydration-related health problems. Women also require more frequent showering during their menstrual cycle to prevent infections and other illnesses. They also face gender-based discrimination in accessing services.

While ultimately the solution to homelessness is housing and a water affordability program cannot, on its own, resolve this problem, increasing access to water and sanitation is a crucial short-term solution. Service providers we interviewed indicated that a discount on their water bill would enable them to provide greater access to water and sanitation, for example by extending opening hours or increasing facility capacity. We therefore recommend that to advance these aims, the program extend the affordability discount to facilities that serve homeless persons, such as nonprofit shelters, churches, and food banks, on the condition that they make water and sanitation accessible to the population they serve, such as by installing drinking fountains or water refill stations in a public space in the facility. This would require that the facility have sufficient space and comply with all laws. Where feasible, water fountains, restrooms, sinks, or showers would also provide an added incentive for homeless persons to seek shelters' assistance with finding health services, employment, and permanent housing.

B. ADDRESSING INSUFFICIENT OR RESTRICTED ACCESS TO DRINKING FOUNTAINS AND PUBLIC TOILETS

Homeless persons also report insufficient or restricted access to public drinking fountains and public toilets.[317] Many jurisdictions restrict access to public water fountains and toilets at

[315] Interview with Rob Robinson, National Economic and Social Rights Initiative, in New York, NY (Feb. 6, 2017).
[316] *The Hygiene Project*, PORTLAND STATE UNIVERSITY, https://www.pdx.edu/syndication/sites/www.pdx.edu.syndication/files/Hygiene%20Project%20Report%202016.pdf [hereinafter Hygiene Project Report].
[317] Loaves & Fishes Interview, *supra* note 314.

night and/or close water fountains and toilets in areas frequented by homeless persons in an effort to drive them away.[318] For example, the city of Sacramento, California decreased access to clean drinking water and sanitation by decommissioning public water fountains and closing public restrooms near homeless communities without providing alternatives.[319] Despite lacking any other option, homeless persons may face criminal charges and unaffordable fines for relieving themselves in public.[320]

This lack of access to drinking water and sanitation facilities can have dangerous health consequences for homeless persons. Not only can lack of access to water fountains cause dehydration, but homeless persons report deliberately drinking less water in the afternoon to avoid needing to use the bathroom at night, when public restrooms are typically unavailable. This can lead to dehydration and related health problems. Dehydration is especially problematic for elderly homeless persons during the warm summer months and contributes to uncollectable emergency room expenditures.[321] Homeless persons also report contracting waterborne illnesses after being driven to drink water from unsafe sources, such as untreated river water.

One reason that localities may close public restrooms at night is a perception that they are unsafe, especially for women. According to homeless women who participated in our consultation, this rationale does not justify restroom closures because it simply means that they are exposed to an even greater risk of violence on the street. Instead, they suggested that localities hire a security guard to ensure restroom safety at night; if a homeless person is hired for this job, then it provides a double benefit to this vulnerable group.

Likewise, another reason that localities may close public restrooms is a concern that they will be damaged or soiled. For the homeless individuals with whom we consulted, cleanliness is crucial to their everyday experience; in contrast to the popular assumption that homeless people are destroying public facilities, they emphasized that the homeless population often has the greatest stake in keeping these areas clean and usable. Again, they raised the suggestion that hiring a homeless person to maintain the cleanliness and usability of these facilities would provide a double benefit.

When homeless persons do not have access to public water fountains or toilets, they sometimes may seek water or sanitation from private establishments such as fast-food restaurants. But private establishments often refuse to serve homeless persons, causing dignitary

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[318] UN Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Mission to the United States of America, ¶¶56-60, U.N. Doc. A/HRC/18/33/Add.4 (Aug. 2, 2011), available at http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4_en.pdf (by Catarina de Albuquerque) [hereinafter UN Water Rapporteur U.S. Report]; Rob Robinson Interview, *supra* note 315.

[319] National Law Center on Homelessness and Poverty, Homelessness Law Blog, "UN to Sacramento: You are Violating the Human Rights of Homeless People," (Feb. 6, 2012), available at http://homelessnesslaw.org/2012/02/un-to-sacramento-youre-violating-human-rights-of-homeless-people/.

[320] National Law Center on Homelessness and Poverty, Homelessness Law Blog, "When There's No Alternative: Rights to Water and Sanitation," Feb. 25, 2011, available at http://homelessnesslaw.org/2011/02/when-theres-no-alternative-rights-to-water-sanitation/. Homeless persons are also subject to social stigma because of their status, and lack of access to water and sanitation worsens this problem as well. UN Special Rapporteur on the human right to safe drinking water and sanitation, Stigma and the Realization of the Human Rights to Water and Sanitation, U.N. Doc. A/HRC/21/42 (July 2, 2012), ¶¶ 37, 42, available at http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session21/A-HRC-21-42_en.pdf.

[321] Hygiene Project Report, *supra* note 316.

harm, or require that a homeless person make a purchase in order to receive free water or access their restrooms.[322]

Lack of access to sanitation in particular may also have a negative effect on the environment. Homeless persons who are camping along watersheds may inadvertently pollute the area by being forced to relieve themselves outdoors. The homeless persons who participated in our consultation were concerned about this issue and would like localities to understand that providing adequate access to water and sanitation to homeless persons would benefit everyone.

Although, a water affordability program may not be able to fully resolve this problem, it can encourage public and private facilities to make drinking water and restrooms available to homeless persons by offering the program discount as an incentive. In this regard, a public facility, such as nonprofit facilities, parks, and government buildings, should be eligible to receive the program subsidy if they can demonstrate that they are making a drinking fountain or restroom facilities available to homeless persons. Such facilities should demonstrate (1) the presence of a publicly accessible drinking water fountain or restroom and (2) steps taken to ensure homeless persons are able to access these resources (e.g. signage informing homeless persons they are welcome to enter).

The Board may also wish to consider proposing that the Legislature adopt a homeless persons' bill of rights that includes a right to access adequate water and sanitation and that ties receipt of relevant State funds to improving such access (e.g., by establishing or maintaining water fountains and public restrooms open in areas frequented by homeless persons and extending the hours during which such facilities can be accessed).[323] This should also include policies to hire homeless persons to address security and other concerns associated with extending the operating hours.

Another idea that emerged from our consultations with homeless service providers and homeless individuals is to work with government buildings to expand the accessibility of their existing drinking water fountains and restroom facilities to homeless persons. Public facilities have restrooms and water fountains that could help satisfy the unmet water and sanitation needs of homeless persons. However, due to security concerns, such facilities are often not available to homeless persons even during hours when the facilities are open to the public, nor are they available to homeless persons outside of those hours (typically at night, when homeless persons have very few safe or legal options to access water and sanitation). If the state issued a mandate that such facilities take steps to increase the accessibility of water and sanitation services to homeless persons, these facilities would likely need additional financial resources to do so. Specifically, they might need funding to hire a security guard to address security concerns or additional janitorial staff to address cleanliness concerns. Such facilities might also need additional resources to expand the hours during which the public, including homeless persons, can access water and sanitation services. Accordingly, the program can improve homeless access to water and sanitation by providing a subsidy to those facilities that are willing to undertake these measures.

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[322] *See, e.g.*, Brooke Purves, *Street Strife: Activists Say the City is Criminalizing Homelessness. Others Point Out All the Positive Changes,*(Jan. 15, 2015) available at http://www.newsreview.com/sacramento/street-strife/content?oid=16029134.

[323] Homeless advocates suggest that if security is a concern for extended open hours for public restrooms, that local jurisdictions should hire homeless persons to provide security for these facilities during evening hours. This solution provides meaningful work for homeless persons while simultaneously expanding access to water and sanitation.

The Board should also work with municipalities that are already providing or developing restroom or drinking water pilot projects to improve homeless access (such as the mobile toilets in San Francisco[324] and Sacramento[325]) to determine whether the program subsidy or other support would increase the success of such projects.

C. ADDRESSING INSUFFICIENT ACCESS TO WATER FOR HYGIENE (SHOWERS/SINKS/LAUNDRY)

Access to water is necessary for hygiene, which is akin to preventative health care.[326] The human right to water is internationally understood as including the right to hygiene.[327] Inaccessible hygiene is "linked to the spread of disease (individual and community) including Methicillin-Resistant Staphylococcus Aureus (MRSA); fungal, strep and staph infections and skin infections (e.g. scabies, head lice and body lice)." [328] It also correlates with the spread of Hepatitis A, B, and C.[329] For women, lack of access to showers and feminine hygiene products puts them at risk of infection during their menstrual cycle.[330] Increased access to water for hygiene would help fulfill the human right to water for homeless persons and decrease uncollectable emergency health care costs. Because homeless persons lack access to water for hygiene primarily as a result of their indigent status, this issue falls within the scope of AB 401.

Permanent hygiene facilities are the ideal long-term solution to meet the hygiene needs of homeless persons.[331] Hygiene facilities should be situated throughout California and available for public access at little to no cost. These facilities would provide access to showers and sinks in order to meet any person's basic hygiene needs and would also ideally provide laundry services. The program can support the creation of such facilities to improve the ability of homeless persons to afford and access water for hygiene. In addition, nonprofit or religious facilities that already provide free water and sanitation and that have the personnel and structural capacity to host a permanent hygiene facility should receive a subsidy proportional to the water, sanitation, and/or hygiene services that they provide to homeless persons.

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[324] For more information, see San Francisco Public Works, Pit Stop Program, available at http://sfpublicworks.org/pitstop.

[325] Mimi Kirk, CityLab, "How Sacramento Rolled Out a Mobile Restroom for the Homeless," Dec. 2, 2016, available at https://www.citylab.com/solutions/2016/12/why-sacramentos-toilets-for-the-homeless-succeeded/509375/.

[326] Hygiene Project Report, *supra* note 316.

[327] *See, e.g.*, CESCR General Comment 15, supra note 63 at ¶12(a); UN Water Rapporteur U.S. Report, *supra* note 318 at ¶60.

[328] Hygiene Project Report, *supra* note 316.

[329] Hygiene Project Report, *supra* note 316.

[330] *What are the risks of infection associated with menstrual hygiene practices,* IRISE INTERNATIONAL, http://www.irise.org.uk/uploads/4/1/2/1/41215619/what_are_the_risks_of_infection_associated_with_poor_menstrual_hygiene.pdf.

[331] Telephone Interview with Eric Tars, Senior Attorney for the National Law Center on Homelessness and Poverty (Mar. 7, 2017). The Environmental Law Clinic would welcome the opportunity to explore more concrete ways that a statewide water affordability program could encourage the creation of hygiene facilities, such as through the provision of small grants to local governments or nonprofits to create and operate such facilities, in addition to making such providers eligible for a water bill discount for providing these services.

D. SUMMARY OF RECOMMENDATIONS FOR HOMELESS PERSONS

- The program should be available to facilities serving homeless persons if they provide access to water and sanitation.
- The Board should consider offering the program benefit as an incentive to encourage public and private facilities to make water and sanitation available to homeless persons. It should work with municipalities and service providers to encourage other means of offering these essential services, including by promoting the establishment of permanent hygiene facilities.
- The receipt of other State resources for water-related projects can be conditioned on ensuring access to water for people who are living homeless.
- The Legislature should adopt a homeless persons' bill of rights that includes a right to access adequate water and sanitation and that ties receipt of relevant State funds to improving such access.

VII. ADDRESSING UNIQUE CONCERNS FOR THE UNDOCUMENTED COMMUNITY

The program should protect undocumented persons' human right to water, sanitation, and hygiene. The undocumented community is particularly vulnerable, now more than ever under the new Presidential Administration. The program, as a model water affordability effort for the nation, should allow undocumented persons and households to become program enrollees.

Most federal public assistance programs exclude undocumented persons from participation.[332] Such exclusion results in unwarranted inequities and stigma for adults and children who lack a legal status in the country while depriving vulnerable individuals of access to basic services. It also seems particularly unjust given that the majority of undocumented persons do their part to fund these programs by paying their taxes; in 2015, undocumented immigrants in California contributed $3.2 billion in state and local taxes alone.[333]

In contrast, many state programs, such as the CARE program, extend enrollment to undocumented customers. The CARE program, for example, does not require that applicants have legal status in the country and accepts employer letters, among other non-government-issued documents, as proof of income.[334] Likewise, the water affordability program should follow AB 685 by acknowledging that "every human being has the right to . . . water"[335] irrespective of their legal status and should cover undocumented persons. The program design should also recognize the barriers undocumented persons may face in accessing the program.

Summary of Recommendations for Undocumented Persons

- Legal status should not be a prerequisite for program eligibility.
- To determine eligibility or whether an applicant has financial need, the program should accept income verification documents from various sources, such as employer or clergy letters, and thus not limit eligibility to people who have access to federal-issued or state-issued documents such as IRS W-2 forms.
- Eligibility screening procedures and applications should refrain from requesting unnecessary information that might unfairly burden undocumented persons or American citizens who may not have such information, such as social security numbers.
- The program should adopt and publicize a confidentiality policy, including a prohibition on reporting the immigration status of enrollees or applicants.
- Program administrators and/or program employees should be prohibited from reporting information about the immigration status of program participants or applicants to immigration agencies.

[332] *Overview of Immigrant Eligibility for Federal Programs*, NATIONAL IMMIGRATION LAW CENTER (December 2015), https://www.nilc.org/issues/economic-support/overview-immeligfedprograms/.
[333] Matthew Gardener, et al., Institute on Taxation and Economic Policy, Undocumented Immigrants' State & Local Tax Contributions, 1 (April 2015), available at https://itep.org/wp-content/uploads/undocumentedtaxes2015.pdf.
[334] *See Required Income Document Guide*, PG&E, https://www.pge.com/includes/docs/pdfs/myhome/saveenergymoney/financialassistance/care/postenrollment/EN_income_guide.pdf.
[335] CAL. WATER CODE § 106.3(a).

VIII. ADDRESSING UNIQUE CONCERNS FOR CALIFORNIA'S NATIVE POPULATION

While it is regrettably outside the scope of this report to give the unique needs of California's Native American Indian population the thorough treatment this important topic deserves, based on limited consultations with tribal representatives and advocates, this section offers some preliminary findings and recommendations. At a minimum, we strongly urge the Board to conduct at least one consultation specifically with Native Americans and tribes to gather their input on a proposed statewide water affordability program.

To address the unique needs of California's Native population with respect to water affordability, it is essential to recognize that this population is not uniformly situated. California's Native population breaks down into four main categories: (1) federally recognized tribes, (2) federally unrecognized tribes (of which a subset have been recognized by the state), (3) individual allottees, meaning Native persons living on small parcels of land held in trust by the federal government,[336] and (4) Native persons living in urban areas.[337] While the last group is likely to have affordability concerns similar to other urban households, the other groups have unique concerns that should be addressed by any proposed program.

Among tribes, lack of federal recognition can deprive members of access to federal grant funding for water infrastructure and other improvements that have a direct effect on the accessibility and affordability of water.[338] Similarly, whether a tribe generates gaming revenue has a significant impact on water affordability; tribes with revenue may already be subsidizing water service for their members, whereas tribes that lack this income source may struggle with water affordability to a much larger degree.[339] Additionally, only some tribes have well-functioning environmental departments while others have none at all, and this difference can also have a significant effect on water access, quality, and affordability for tribal members.[340] More sophisticated tribes may have more success in negotiating reasonable service agreements with nearby utilities, whereas those that lack resources and capacity may be left with less sustainable or affordable water service.[341] Regional variations also have an effect on water affordability issues faced by different tribes, particularly with respect to whether tribes depend on surface as opposed to groundwater, the quality of drinking water sources, and the extent to which the area is affected by drought or water scarcity.[342]

Finally, individuals on public domain allotments are not only excluded from most grant or low-interest loan programs, they may also be caught in a jurisdictional gap that leaves them without water service when infrastructure on federally-held land deteriorates.[343] According to advocates who work with these persons, cases have emerged where a water pipe extending water service to an individual allotment breaks and neither the federal government nor the utility

[336] *See* Indian Land Tenure Foundation, "Land Tenure History," available at http://iltf.org/land-issues/history/, and "Other Resources," available at https://iltf.org/resources/other-resources/.
[337] Telephone Interview with Blake Atkerson, Staff Attorney at California Indian Legal Services, (July 27, 2017).
[338] *Id*.
[339] *Id*.
[340] *Id*.
[341] *Id*.
[342] *Id*.
[343] *Id*.

providing service is willing to take responsibility for the infrastructure repair costs, leaving the allottee without access to running water for extended periods of time.[344] Few resources appear to be available to these vulnerable individuals.

Summary of Recommendations for California's Native Population

- Conduct at least one consultation specifically for California's Native American Indian population to understand their unique water affordability needs and develop recommendations.
  - ✓ This consultation should include unrecognized tribes and Native individuals living on allotments and in urban areas. The Board may also wish to reach out to the Indian Health Service for data and their input.
- Because some tribes cover household water costs for their members, the Board should consider providing the program subsidy to tribes that need financial assistance to assure adequate access to their members in this way.
- According to advocates, the Integrated Regional Water Management Disadvantaged Communities Involvement Program[345] will include needs assessments of tribal communities. The Board should ensure that the findings and recommendations developed through this process are incorporated into its proposal, to the extent that they are relevant to water affordability.
- Incorporate a program element designed to ensure that individual allottees do not lose access to running water for extended periods of time due to jurisdictional gaps or lack of communication between local authorities and the federal government.
  - ✓ One solution would be for the Board to require that utilities serving such individuals help them connect with the responsible agency (typically the Bureau of Indian Affairs) to ensure that repairs take place in a timely manner.
  - ✓ A more comprehensive solution would be for the program to provide funding for such repairs that would then be reimbursable by the responsible agency, to assure prioritization of water service restoration.
  - ✓ Additionally, the program could provide financial assistance to defray the costs these individuals face in connecting to nearby water systems.
- Recognize the cultural significance of water—and particular bodies of water—for California's Native population and solicit their guidance on how the program might help mitigate damage to cultural resources of this kind.

[344] *Id*.
[345] *See* California Department of Water Resources, Proposition 1 IRWM DAC Involvement Program, available at http://www.water.ca.gov/irwm/grants/p1_dac_involvement.cfm.

IX. RECOGNIZING THE CONNECTION BETWEEN WATER QUALITY AND WATER AFFORDABILITY, PARTICULARLY FOR RURAL COMMUNITIES WITH CONTAMINATED DRINKING WATER

Rural communities face a particular set of affordability challenges, largely related to groundwater contamination.[346] Thirty million Californians rely on groundwater for at least part of their drinking water supply,[347] and about twenty percent of groundwater used for public supply in California has concentrations of at least one contaminant above the human-health benchmark.[348] Over four million Californians—mostly rural and low income—rely solely on contaminated groundwater for their drinking water.[349]

Contamination of this kind often occurs in small public water systems in disadvantaged communities, as well as systems and wells that are not regulated by the SWRCB. Entities that fall outside the Board's jurisdiction include private or mutual water companies regulated by the CPUC, and the two million Californians who receive water from unregulated domestic wells or water systems with fewer than 15 connections.[350] These systems and wells create a significant data gap regarding statewide water affordability and safety, [351] but we do know that the number of small systems and domestic wells experiencing problematic contamination is significant and will grow as agricultural practices like over-application of synthetic fertilizers continue to leach nitrates and other pesticides into the water basins.[352]

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[346] We do not focus on surface water, even though surface water may become contaminated by "sedimentation and pollution from residential and industrial development, timber harvests, agricultural production, land clearing, and mining," as well as runoff and disinfectant byproducts. This is because surface water contamination is not as large a threat to drinking water as groundwater contamination. In California, two-thirds of the watersheds have some form of protection and only seven percent are developed or converted to agriculture, whereas more contaminating activities threaten groundwater quality. For these reasons, our recommendations focus on preventing groundwater contamination to lower filtration and treatment costs to utilities and the state.

[347] California State Water Resources Control Board, Report to the Legislature, *Communities that Rely on Contaminated Groundwater Source for Drinking Water* 7 (Jan. 2013), available at http://www.swrcb.ca.gov/gama/ab2222/docs/ab2222.pdf [hereinafter SWRCB Contaminated Groundwater Report to Legislature].

[348] Kenneth Belitz, Miranda S. Fram & Tyler D. Johnson, *Metrics for Assessing the Quality of Groundwater Used for Public Supply, CA, USA: Equivalent-Population and Area*, Environmental Science & Technology 8330 (June 2015).

[349] SWRCB Contaminated Groundwater Report to Legislature, *supra* note 347 at 13-14.

[350] *See* The Water We Drink: Part 2, August 2015, California Senate Office of Research, 3-6, available at http://sor.senate.ca.gov/sites/sor.senate.ca.gov/files/Formatted%20Drinking%20Water%20PART%202%20Augus%20%202015.pdf [hereinafter California Senate Drinking Water Report]; *see also*, California State Water Resources Control Board, Explanation of Safe Drinking Water Needs Operations and Maintenance (O&M) Needs Estimate (2017), available at http://www.waterboards.ca.gov/water_issues/programs/hr2w/docs/data/safe_dw_om_needs_estimate_explanation.pdf.

[351] *See* California Senate Drinking Water Report, *supra* note 350 at 15.

[352] *See, e.g.*, Testing Your Private Domestic Well, June 2016, California State Water Resources Control Board, available at http://www.waterboards.ca.gov/publications_forms/publications/factsheets/docs/dom_well_factsheet.pdf; *see also*, California State Water Resources Control Board, GAMA – Groundwater Ambient Monitoring and Assessment Program, available at http://www.waterboards.ca.gov/water_issues/programs/gama/well_owners.shtml) (area focus testing shows a high percentage of wells with at least one contaminant over the MCL).

The Board has recognized the importance of providing short- and long-term drinking water solutions to Californians who lack safe and affordable drinking water, and advocates are pursuing a sustainable funding source for these efforts through SB 623, which if enacted would create the Safe and Affordable Drinking Water Fund to assist small water systems with short- and long-term solutions to chronic drinking water contamination and related affordability challenges. We hope that this fund will eventually expand to assure safe, affordable drinking water for all low-income Californians, and encourage the Board to consider ways to create an integrated approach the interrelated challenges of securing drinking water safety and affordability. In this regard, it should consider how to create an affordability program under AB 401 that complements and builds upon the support the Board seeks to offer to small systems through SB 623 or similar measures, as well as related water conservation, clean-up and contamination prevention programs.

Ensuring that all Californians have safe and affordable drinking water requires a plan that takes into account all of these moving pieces. For private well owners and communities with small water systems that rely on groundwater,[353] rate assistance to individuals will not mean affordable water if and when their groundwater becomes contaminated. Contamination cuts off access to safe water, leaving communities to rely on bottled water, or where feasible, engage in large-scale projects like drilling new wells, water blending, consolidation with a larger system, or building a treatment plant. All of these actions present significant affordability challenges that rate assistance alone cannot address. Bottled water is expensive, and an external cost. At the same time, small systems and private well owners do not have enough users to support the capital costs for major projects or treatment plants, not to mention the ongoing treatment costs.[354] The individual rate assistance required to make water affordable under these circumstances could easily become astronomical.

Despite these challenges, any affordability program consistent with AB 685's human right to water must reach these individuals. In the short run this will require macro, system-level support, including mitigation projects, operations and management support, consolidations with an eye toward maintaining affordability, as well as bottled water subsidies. In the long run, a sustainable program will require preventing contamination. Indeed, preventing contamination is likely to be one of the most "cost-effective methods of offering assistance to low-income water customers besides rate assistance"[355]

A. COSTS ASSOCIATED WITH GROUNDWATER CONTAMINATION

San Jerardo's water struggles illustrate the unique affordability challenges rural communities living with contaminated groundwater face. The San Jerardo Cooperative is a low-income community comprised primarily of farmworkers near Salinas. It is surrounded entirely by large-scale agricultural operations. Its 64 families and child-care center depend on a local aquifer for water. Agricultural byproducts from neighboring farms contaminated the community's first well in 1990, and their second well in 1993.

[353] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 43.
[354] *See* California Senate Drinking Water Report, *supra* note 350.
[355] CAL. WATER CODE § 189.5(d).

In 2001, the community dug three new wells, but could not find any clean water. They put in filters for the third well, which worked for a time. They also begged the neighboring farms to reduce pesticide and synthetic fertilizer use, pointing out that the farms could use ten times less if they simply applied compost or organic fertilizers. Their neighbors, who had a different source of water, ignored their concerns, and in 2005, San Jerardo residents began to report rashes and hair loss. After testing, they discovered that their well was contaminated with nitrates (caused by agricultural runoff) and 1,2,3-trichloropropane (TCP) (a pesticide byproduct), which made the water unsafe even for showering.

When neighboring farms refused to share their water source, the City of Monterey stepped in to help the community filter the water by reverse osmosis at a cost of $18,000 a month. Eventually, treatment became too expensive. With no potable water left in their area, the community applied for state funding to dig a fourth new well two miles away in a deeper aquifer. Completed in October 2010, the new facility cost over $6 million government dollars to build, and has significant operational and power costs to pump the water from that distance to San Jerardo. Residents struggle to pay their water bills, and community leaders fear that the unabated contamination will eventually reach this new well, leaving them entirely without water.

Put simply, dealing with contamination is expensive. Mitigation projects range from blending water with a less contaminated source (where available), drilling new wells, consolidating with another system, or creating a new treatment plant.[356] As the chart below makes clear, the average proposed project cost in 2011 was over 2.3 million, and some projects—like treatment plant upgrades—can costs tens of millions of dollars. For a much more comprehensive look at the costs of mitigation, see Appendix V.

[356] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 39-40.

Costs of Proposed Projects to be Funded by the California Department of Public Health

Project Type	Number of Proposals	Average Project Cost	Minimum Project Cost	Maximum Project Cost	Total Project Cost
Consolidation	10	$2,106,080	$ 115,000	$ 15,000,000	$ 21,060,800
Drill	8	$1,697,619	$ 100,000	$ 3,500,000	$ 13,580,950
Drill and Consolidation	1	$1,813,000	$ 1,813,000	$ 1,813,000	$ 1,813,000
Infrastructure to blend	2	$1,050,000	$ 500,000	$ 1,600,000	$ 2,100,000
Feasibility Study	3	$200,000	$ 20,000	$ 500,000	$ 600,000
Treatment	2	$800,000	$ 300,000	$ 1,300,000	$ 1,600,000
Treatment or Consolidation	1	$1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000
Unclear	9	$1,332,985	$ 150,000	$ 4,322,750	$ 11,996,862
Upgrade treatment plant	1	$34,000,000	$ 34,000,000	$ 34,000,000	$ 34,000,000
Total	**37**	**$2,385,179**	**$ 20,000**	**$ 34,000,000**	**$ 88,251,612**

Source: CDPH SRF Project Priority List (August, 2010) and CDPH Proposition 84 Draft Project Priority List (February, 2011)

Source: The Human Costs of Nitrate-contaminated Drinking Water in the San Joaquin Valley[357]

As a general rule, rural communities with small water systems cannot afford these upgrades, and must rely on the state to fund mitigation measures through a mix of loans and grants.[358] The Drinking Water State Revolving Fund provides loans for the planning, design, and construction of drinking water infrastructure projects. Loans provided to small, low-income communities require payment of the loan back over 30 years at 0 percent interest.[359] Even at these favorable terms, the loans can create unaffordable water for low-income residents.

Moreover, because these rural water systems tend to have few users, operations and maintenance costs alone can make the water unaffordable.[360] As a result, communities may obtain state help to build elaborate treatment plants, but cannot sustain the ongoing operations and management costs. In Lanare, California, for example, the community of 600 received a $1.3 million federal grant to build an arsenic treatment plant.[361] The plant was constructed, but the

[357] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 45.
[358] *See* California Senate Drinking Water Report, *supra* note 350 at 4 ("Prior to the transfer of the state's water program from the DPH to the SWRCB, the DPH's DWP established a Small Water System Program Goal that targeted the 183 community water systems identified as having significant problems. At the beginning of 2012, the SWRCB was actively attempting to bring 63 of these systems back into compliance.").
[359] *Drinking Water State Revolving Fund Program (DWSRF) Basics*, California Environmental Protection Agency (last updated June 3, 2016), http://www.waterboards.ca.gov/drinking_water/services/funding/dwsrf_basics.shtml.
[360] *Proposition 84 Funding for Public Water Systems*, California Environmental Protection Agency (last updated July 1, 2014), http://www.waterboards.ca.gov/drinking_water/services/funding/Prop84.shtml. Regardless, this program is no longer accepting applications for funding; California Senate Drinking Water Report, *supra* note 350 at 16-17.
[361] Laura Bliss, Before California's Drought, a Century of Disparity, CityLab (Oct. 1, 2015), available at http://www.citylab.com/weather/2015/10/before-californias-drought-a-century-of-disparity/407743/.

operational costs proved too high and the plant shut down after six months.[362] The community members still pay a water bill that covers the debts of the treatment plant, but must rely on jugs of water delivered by the state.[363]

Other communities simply make do with contaminated water, purchasing bottled water where they can. The Pacific Institute provides some unsettling examples in this regard. "In Seville in the heart of California's San Joaquin Valley, Becky wakes up worrying about whether she has enough bottled water to make coffee and give her elderly mother a glass to take with her medications. If not, she may have to turn to the nitrate-contaminated water from her tap."[364] In nearby Orosi, "Sara used to try not to get too thirsty during gym class because the fountains at her school were shut off due to nitrates and the only alternative was to purchase a drink she could not afford."[365] And in Tooleville, "Maria used to get a ride to buy five-gallon water jugs from a nearby city to bathe her infant without risking her child ingesting water contaminated with nitrates."[366]

As these examples show, purchasing vended and bottled water increases the cost of water in ways that a simple affordability program will not capture. The same is true of purchasing filters for faucets.[367] Communities without access to safe water must also spend time and money traveling to purchase the alternative water.[368] Any support should thus reflect these additional ongoing burdens.

B. RECOMMENDATIONS FOR ADDRESSING RURAL AFFORDABILITY CONCERNS

Below we provide options the Board may want to explore as part of its AB 401 program, both to ensure that its program reaches rural populations, and as part of AB 401's call to "include recommendations for other cost-effective methods of offering assistance to low-income water customers besides rate assistance."[369] The Board should recognize the connection between water quality and water affordability and consider ways to create a coherent, integrated policy for safe and affordable drinking water. Its Affordable & Safe Drinking Water Initiative is a promising start, and its AB 401 implementation should complement and build upon the support the Board seeks to offer to small systems through pending legislation,[370] while including related water

[362] *Id*.
[363] *Id*.
[364] The health burdens of nitrates differ. For example, nitrate is an acute toxicant and can have an almost immediate effect on a person. Anthony Saracino & Harrison Phipps, *Groundwater Contaminants and Contaminant Sources*, University of California—Davis, 4 (Apr. 2002). Exposure to nitrates over the regulatory limit has been found to lead to infants' illnesses and deaths. Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 12. It has also been linked to health risks for pregnant women affecting both the mother and the baby, as well as longer-term health effects for children and adults including cancer and hormonal issues. *Id*. People drink nitrate contaminated water either because they are unaware of the contamination or because they are unable to purchase alternative sources of water. *Id*. at 34-35.
[365] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 9 (footnotes and internal citations omitted).
[366] *Id*. (footnotes and internal citations omitted).
[367] *Id*. at 36-37.
[368] *Id*. at 27.
[369] CAL. WATER CODE § 189.5(d).
[370] SB 623's proposed Safe and Affordable Drinking Water Fund.

conservation, clean-up, and contamination prevention programs in a larger plan to achieve safe and affordable water for all Californians.

The Board should offer capital cost and operations & maintenance funding to small systems addressing contaminated drinking water, technical assistance and financial support to small communities that seek to operate their water systems, and consolidations that take affordability into account. To support these efforts, we suggest that the Legislature expand the Board's powers under SB 552 (operations & maintenance support) and SB 88 (consolidations) to include systems struggling to provide *affordable* water, in addition to its existing powers to assist systems struggling to provide *safe* water. The Board should also provide technical assistance to small communities and private well owners to implement improved well-drilling practices that avoid the likelihood of contamination. As well, because rural communities with drinking water contamination may be paying twice for water—once for their water bill and again for expensive replacement water—the program should consider these additional costs in determining eligibility and benefits. Lastly, because ongoing contamination is both inequitable and costly, the Board should consider incorporating pollution prevention measures into the funding mechanism for the program. For increased costs caused by nitrate pollution specifically, the Board should consider advising the Legislature to adopt either a special-purpose tax or an excise tax on fertilizer.

1. Capital Costs and Operations & Management Help for Small Rural Systems

The Board should offer capital cost and operations & maintenance funding to small systems addressing contaminated drinking water, as well technical assistance and financial support to small communities that seek to operate their water systems.

Covering capital costs and O&M funding for small systems with unsafe water is an important step in addressing rural affordability issues that occur at the system level. As a 2015 Senate Report made clear, "ongoing operation and maintenance (O&M) is a major barrier to a small water district because the only funding source for O&M is local ratepayers. Small systems in disadvantaged communities cannot afford these increased rates to cover the costs of treatment."[371] This raises significant barriers to achieving safe, affordable water for such communities, as "[t]he state cannot provide financial assistance, including grants, to public water systems that cannot afford ongoing O&M costs. In addition, if water quality worsens or new contaminants are found, additional treatment may be required.[372]

Covering one-time or episodic capital costs and ongoing O&M expenses not only fills a gap left by a rate assistance program, it also keeps rate assistance affordable for small systems where individual bills would be exceedingly high. Others have recognized these advantages. If enacted, SB 623 (Monning), for instance, aims to have a fund covering small system upgrades, as well as "[c]osts associated with maintaining and operating interim solutions and long-term solutions."

The Board should make sure that any AB 401 proposal complements and builds on this language. For instance, the Board may want to consider ways to support communities' efforts to reduce O&M costs through AB 401 implementation. One substantial way to mitigate ongoing

[371] California Senate Drinking Water Report, *supra* note 350 at 17.
[372] *Id*.

O&M costs for small rural system is to enable community residents to operate the system rather than contracting with more expensive outside operators.

"[F]inding experienced operators to run the treatment system is costly."[373] Communities like San Jerardo have proposed cutting costs by operating the water system internally. Unfortunately, community members willing to undertake the job usually lack the requisite education or the time and/or resources to obtain it.[374] California law requires that people who operate water and/or wastewater treatment facility have either a college degree or a Certificate in Water or Wastewater Technology.[375] Earning a Certificate in Water and Wastewater Technology can cost thousands of dollars in college courses and training;[376] and many people in rural areas do not have a college degree.

The Board could support communities seeking to operate their own small water systems by subsidizing educational expenses for the Certificate in Water or Wastewater Technology, including tuition and examination fees.[377] The Board might also provide trainings and workshops to communities on how to operate systems and lower costs. This type of "outreach and technical assistance"[378] would not only decrease water-associated operating costs for rural communities, but would also increase green jobs for low-income communities.

2. Ensuring Affordable Consolidations

We also encourage the Board to consider the effects of its SB 88 powers over small system consolidations on water affordability under AB 401. First, we suggest that the Board explore including unaffordable rates as a motivating factor to consider a consolidation and encourage the Board to pursue consolidations that would improve affordability. On the other hand, we suggest that the Board add some language in its AB 401proposal to ensure that consolidations do not create unexpected affordability issues.[379]

SB 88 grants the SWRCB the authority to require small water systems to connect with larger utilities when "a public water system or a state small water system, serving a disadvantaged community, consistently fails to provide an adequate supply of safe drinking

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[373] *Id*.
[374] Telephone Interview with Horacio Amezquita, General Manager, San Jerardo Cooperative (Mar. 14, 2017).
[375] *See* Water Distribution Minimum Qualifications for Certification, California Water Boards (Dec. 2016), available at http://www.waterboards.ca.gov/drinking_water/certlic/occupations/documents/opcert/distributionminqualcertifications.pdf.
[376] *Wastewater Operator Certification Training Directory*, California Water Boards (January 2017), available at http://www.waterboards.ca.gov/water_issues/programs/operator_certification/docs/trngdir.pdf.
[377] People who benefit from the program's educational subsidy should be required to work for the community at an affordable cost for several years after getting the requisite college education or becoming certified. At least one rural community has financed a community member's education costs so that she could become a certified operator. Upon getting the requisite college education to operate a small water system, she accepted a higher-paying job position with a water utility and did not reimburse the community for her education costs.
[378] Senate Bill 623 (Monning, 2017), available at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB623.
[379] State Water Resources Control Board, *Fact Sheet: Frequently Asked Questions on Mandatory Consolidation or Extension of Service for Water Systems* 1 (Nov. 7, 2016), http://www.waterboards.ca.gov/drinking_water/programs/compliance/docs/fs082415_mand_consolid_faq.pdf.

water."[380] This practice, known as consolidation, is important to ensuring that water is safe and can sometimes remedy the lack of economy of scale that drives rates up for small utilities.

Under certain circumstances, however, a consolidation may negatively impact affordability. A mobile home park near Death Valley illustrates some of these concerns. When this mobile home park's well became contaminated, they were offered three solutions (1) install treatment; (2) drill a new well; or (3) consolidate with a local utility. There was state funding available to construct a 1.5-mile pipeline to carry out option 3, but not funding available for options 1 or 2.[381]

Despite having funding available that would connect them with a public utility, the community vehemently opposed consolidation.[382] Community members realized that while the water they received would be safe, it would not be affordable.[383] The problem was that once the system was consolidated, the community would not have control over the pricing of the water.[384] While Proposition 218 prevents public water utilities from charging more than the cost of service in their normal service territory, the utility may charge high connection fees or higher rates to cover the new costs of extending service to the consolidated area.[385] Moreover, the community lacked representation on the consolidating utility's board or the city council, and thus had little power to influence rates.

The consolidation itself may also be expensive. Connection fees in particular can drive up costs of service, making water unaffordable to the end users.[386] Other issues that may drive up the cost to the larger utility—and thus the ratepayers—include requisite infrastructure repairs to the smaller system, building and maintaining the long pipes to connect two systems that are far apart, and increased liability for the larger system.[387]

Accordingly, we suggest the Board incorporate an affordability analysis into its consolidation process to encourage consolidations that would improve access to safe, affordable water, and prioritize other solutions where a consolidation might negatively impact affordability. The Board may also want to consider measures to reduce negative affordability impacts arising from consolidation, such as funding connection fees and other infrastructure costs related to consolidation or requiring price protections for consolidated communities.

3. Technical Assistance to Small Systems and Private Well Owners

A water rate discount program like that envisioned in the four scenarios is unlikely to reach small systems and private well owners, who may still struggle to afford safe drinking water, particularly under conditions where agricultural contamination and aquifer overdraft restrict access. Assisting these individuals will likely require a combination of strategies, including contamination prevention or mitigation (as described in Appendix V, *infra*), as well as

[380] CAL. HEALTH & SAFETY CODE § 116682(a).
[381] Telephone Interview with Glenn Reynolds, CEO/Principal, Water Solutions Inc. (March 23, 2017) [hereinafter Glenn Reynolds Interview].
[382] *Id*.
[383] *Id*.
[384] *Id*.
[385] *Id*.
[386] *Id*.
[387] California Senate Drinking Water Report, *supra* note 350 at 17.

tailored technical assistance and funding streams. One useful tool is to provide technical assistance to small communities and private well owners to implement improved well-drilling practices that avoid the likelihood of contamination. This could be done through SB 623, if enacted, which asks that water assistance cover "[o]utreach and technical assistance to those without access to safe and affordable drinking water." It could also be incorporated in the Board's AB 401 recommendations.

Consulting a groundwater geologist reduces the likelihood that the well will draw up contaminated water or become contaminated.[388] A groundwater geologist can recommend well depths that avoid contaminated water.[389] For example, nitrate-contaminated water is generally found closer to the surface, while arsenic-contaminated water is deeper; a geologist can recommend a safe, middle depth that avoids both.[390]

Private well owners and small systems frequently skip this step to save money on the front end. Such a consultation can cost around $5,000, money few individuals have on hand.[391] When these poorly drawn wells become contaminated, however, the individual or community needs a new well, or a costly filtration/treatment system.[392]

Supporting smart well drilling from the outset will reduce the long-term costs and provide a safer supply of groundwater. The state could provide groundwater geologists to consult with small communities and private well owners about the proper depth and well-drilling techniques to reduce the likelihood of contamination. Alternatively, the state could offer grants for small systems and private well owners to carry out such consultations prior to drilling.

4. Additional Funding for Those Who Must Buy Bottled Water to Replace Contaminated Tap Water

As the Board is well aware, many Californians living with contaminated water pay a utility bill for water they cannot drink and purchase alternative safe sources of water, typically expensive bottled water. A traditional water affordability measure based on a water bill does not take into account the "replacement cost" for water, or the price a household pays each month to purchase non-contaminated water supplies (generally bottled water[393] or vended water[394]).[395] Communities in California's San Joaquin Valley suffering from contaminated groundwater rely heavily on bottled and vended water, despite the high cost as a percentage of income.[396]

[388] Glenn Reynolds Interview, *supra* note 381.
[389] *Id*.
[390] *Id*.
[391] *Id*.
[392] *Id*.
[393] "Bottled water" is defined as "any water that is placed in a sealed container at a water-bottling plant to be used for drinking, culinary, or other purposes involving a likelihood of the water being ingested by humans." CAL. HEALTH & SAFETY CODE § 111070.
[394] "Vended water" is defined as "any water that is dispensed by a water-vending machine, retail water facility, or water from a private water source." CAL. HEALTH & SAFETY CODE § 111070.
[395] California Senate Drinking Water Report, *supra* note 350 at 9.
[396] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 7, 36–38.

According to one report, the annual cost for one household purchasing and receiving bottled water for one year is about $1,260.[397]

In the Beverly Grand Mutual Water Company system in the San Joaquin Valley, for example, almost all the households purchase alternative water sources to replace contaminated groundwater. [398] Of those households, 75 percent purchased both bottled and vended water drinking water, 19 percent purchased only bottled water, and 5 percent purchased only vended water.[399] Vended or trucked water costs on average $950 dollars a year for one domestic well system,[400] and about $350 per household for one year for small system ratepayers.[401]

Although we oppose long-term reliance on bottled water as unsustainable, we suggest the program take these costs into account when determining eligibility and provide assistance to households in this situation as an interim measure until the underlying contamination problems are resolved.[402] Specifically, for program participants receiving contaminated tap water, the Board should also consider providing a monthly replacement water stipend. We note, however, that the Board may want to consider how this program element might interact with current California Department of Public Health (DPH) regulations, which prohibit new small systems from having trucked water delivered, and limit older systems to trucking in "emergency" situations.[403]

5. Comprehensive Pollution Prevention is Critical to Keeping Water Affordable Now and In the Future

While operations and maintenance (O&M) funding, consolidation support and bottled and vended water subsidies are important steps, they are not sufficient to control small system and private well costs, and ensure access to safe drinking water. Controlling water costs for users requires pollution prevention.[404] Currently, drinking water contamination is creating an environmental justice crisis as low income individuals and communities in rural areas

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[397] Kristin Honeycutt et al., Technical Report 7: Alternative Water Supply Options for Nitrate Groundwater Contamination 67 (2012), available at http://groundwaternitrate.ucdavis.edu/files/139108.pdf [hereinafter Technical Report 7]. *See id*. at 75-6 ("To estimate the cost of bottled water, the National Academy of Sciences Hydration Study (2004) was used, assuming 3.3 people per household and predicting about 2.25 gallons per household-day needed for potable uses. Vended or bottled water can cost $0.25 to $1.30 per gallon, not including transportation costs (Pacific Institute et al. 2010). A common low price for water delivered near the city of Visalia by Alhambra Water is a 5-gallon bottle at $1.63 per gallon (Alhambra Water 2010). The annual cost for a household receiving Alhambra Water is about $1,260.").

[398] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 25.

[399] *Id.*

[400] This is based on a 500 gallon RMR Water Truck traveling from Castaic to Tulare County for a 4 hour roundtrip at $100/hour, purchase of 500 gallons of local, safe drinking water supply at $0.35 per gallon, and a one-time 500 gallons cost. Technical Report 7, *supra* note 397, at p. 81. This cost excludes the cost for storage. *Id.*

[401] *Id*. This is based on a 500 gallon RMR Water Truck traveling from Castaic to Tulare County for a 4 hour roundtrip at $100/hour, purchase of 7,000 gallons of local, safe drinking water supply at $0.35 per gallon, and a one-time. *Id.* at 82.

[402] SB 623 (Monning, 2017) recognizes this issue and may provide a separate avenue for assisting communities in this situation, noting that "[t]o the extent that funding is available, the assistance shall include …. (a) The provision of replacement water on an interim basis pending implementation of long-term solutions." Senate Bill 623, available at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB623.

[403] Technical Report 7, *supra* note 397, at pp. 60, 160.

[404] U.S. Environmental Protection Agency, *Pollution Prevention*, available at https://www.epa.gov/p2.

overwhelmingly bear the costs of contamination—buying replacement water, digging new wells, paying ongoing O&M costs, dealing with related health crises and medical bills, to name only a few costs that they bear. Low-income Latinx households in particular are disproportionately affected by contaminated drinking water.[405] Preventing pollution in these communities not only saves the state money, but also protects vulnerable environmental justice communities from the health and environmental harms they face when their water is contaminated.

Pollution prevention is critical to controlling program costs, something AB 401 invites the Board to consider.[406] Controlling contamination makes a rate assistance program more affordable by limiting the number of individuals and communities who need ongoing and expensive support, and properly placing incentives on the party best able to fix the problem—the polluter. The Board itself has recognized in the past that "[s]ource protection and pollution prevention are the most effective ways of ensuring a continued supply of safe drinking water."[407] Indeed, "[i]ncreasing conservation action in unprotected watersheds could protect and in some cases improve drinking water quality, reducing the need for costly and energy intensive filtration and treatment facilities" or other mitigation measures.[408]

A state affordability program that subsidizes a percentage of what a utility charges for a baseline amount of water will be forced to pay more and more to provide the same level of assistance as pollution and its consequences drive water rates up for all ratepayers in a system. Moreover, in the long run, the costs of providing bottled water, subsidizing expensive treatments in small systems, building and maintaining new sources, and addressing public health crises will fall squarely on the state, either through the AB 401 program, SB 623, or otherwise. Failing to control contamination will thus compound the state's expenses, as the state funds projects to address the system-wide safe water access issue, and then must provide ongoing subsidies to keep this very expensive water affordable to users on a monthly basis.

Accordingly, the Board may want to consider including pollution prevention measures in its AB 401 proposal by making explicit linkages between affordability and its work to protect water quality, creating a complementary series of measures to limit pesticide and fertilizer applications, and working with other agencies to require clean-up and mitigation of contaminated aquifers, or reduce contamination. The Board should consider incorporating pollution prevention measures into the funding mechanism for the Program. For increased costs caused by nitrate pollution specifically, the Board should consider advising the Legislature to adopt either a special-purpose tax or an excise tax on fertilizer. For an in-depth exploration of a fertilizer tax, please see Appendix VI.

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[405] Pacific Institute Report on Human Costs of Nitrate-contaminated Drinking Water, *supra* note 34 at 7.
[406] CAL. WATER CODE § 189.5(d).
[407] SWRCB Contaminated Groundwater Report to Legislature, *supra* note 347 at 19; *see also* Kirk Klausmeyer & Katherine Fitzgerald, *Where Does California's Water Come From?: Land conservation and the watersheds that supply California's drinking water*, The Nature Conservancy: A Science *for* Conservation Technical Brief 4 (October 2012) (Source water protection is a type of pollution prevention frequently associated with groundwater protection and includes "protecting and/or restoring native vegetation in … watersheds …[to] improve groundwater supply by maintaining or increasing groundwater recharge rates.").
[408] Kirk Klausmeyer & Katherine Fitzgerald, *Where Does California's Water Come From?: Land conservation and the watersheds that supply California's drinking water*, The Nature Conservancy: A Science *for* Conservation Technical Brief 3-4 (October 2012).

6. Summary of Recommendations for Addressing the Connection Between Water Quality and Water Affordability

- The Board should recognize the connection between water quality and water affordability and consider ways to create a coherent, integrated policy for safe and affordable drinking water. Its Affordable & Safe Drinking Water Initiative is a promising start.
- AB 401 implementation should complement and build upon the support the Board seeks to offer to small systems (including potentially through SB 623's proposed Safe and Affordable Drinking Water Fund, if enacted), while including related water conservation, clean-up, and contamination prevention programs in a larger plan to achieve safe and affordable water for all Californians.
- The Legislature should expand the Board's powers under SB 552 and SB 88 to include systems struggling to provide affordable water.
- The Board should offer capital cost and operations & maintenance funding to small systems addressing contaminated drinking water.
- The program should offer technical assistance and financial support to small communities that seek to operate their water systems. This should include support for community members to obtain a Certificate in Water or Wastewater Technology.
- Affordability should be added as a factor in system consolidations.
  - ✓ Where consolidation would improve affordability, the Board should encourage this solution.
  - ✓ Where consolidation could raise rates or impose high service extension costs, the Board should either intervene to negotiate price protections, provide funding to cover connection fees or other increased service extension costs, or consider other solutions.
- The Board should provide technical assistance to small communities and private well owners to implement improved well-drilling practices that avoid the likelihood of contamination.
- Because rural communities with drinking water contamination likely pay twice for water—once for their water bill and again for expensive replacement water—the program should consider these additional costs in determining eligibility and benefits. The Board should also consider how this aspect of the program aligns with complementary efforts to provide replacement water as an interim solution until the system can provide safe water.
  - ✓ For program participants receiving contaminated tap water, the Board should also consider providing a monthly replacement water stipend.
- The Board should consider incorporating pollution prevention measures into the funding mechanism for the affordability program. For increased costs caused by nitrate pollution specifically, the Board should consider identifying the benefits were the Legislature to adopt either a special-purpose tax or an excise tax on fertilizer.

X. CONCLUSION: CRAFTING AN INTEGRATED SOLUTION FOR CALIFORNIA AND A MODEL PROGRAM FOR THE NATION

Ultimately, the establishment of the nation's first statewide water affordability program will be a tremendous accomplishment in its own right. But by creating a program that links to the state's overall efforts to realize the human right to water and make water conservation a California way of life, though, the state can transcend outdated models of piecemeal solutions and band-aid assistance to achieve a California where all have safe, affordable water. To do so, the state will need to adopt a flexible, inclusive affordability—not assistance—program, targeted to meet the needs of California's diverse low-income population (including those who are not utility customers, like renters, mobile home residents, and the homeless) and integrated with measures to improve household-level conservation, encourage utilities to maximize affordability, prevent and mitigate drinking water contamination, and invest wisely in upgraded water infrastructure. By providing a benefit tailored to the needs of low-income households and coordinated with these complementary measures, the state will make the best use of its precious resources and improve the lives of all Californians.

APPENDICES

APPENDIX I: UTILITY CASE STUDIES

This section summarizes key information we received from two of the many utilities we interviewed in preparing this report. We chose these two utilities because they have robust tiered-rate structures, but we would be happy to provide more of the information we gathered from interviews with other utilities upon request.

A. EAST BAY MUNICIPAL UTILITY DISTRICT

East Bay Municipal Utility District (EBMUD) serves 1.4 million people in a 331-square-mile service area.[1] Most of its water comes from the Sierra's Mokelume River watershed, while a small portion comes from the Sacramento River.[2] To secure this Sacramento River supply, EBMUD has worked with farmers north of the Sacramento-San Joaquin Delta to fallow their crops during droughts and to channel the water through the Freeport Regional Water Facility, a project jointly constructed and managed with Sacramento.[3]

EBMUD charges tiered rates to single-family residential customers based on the amount used per day.[4] The higher tiers reflect the additional infrastructure and resources needed to the meet the water demands caused by high volume consumers at peak usage rates.[5] This infrastructure includes larger water treatment plants and the Freeport facility. [6]

EBMUD also has a customer assistance program that offers a 50 percent discount on service and commodity charges to income-qualified customers.[7] However, it must fund this program with money that falls outside the scope of Proposition 218 and is not collected through rates.[8] Because external funding is limited, the program cannot reach all the people that EBMUD would like to reach.[9] Enrollment in the program is accordingly quite low.[10]

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[1] East Bay Municipal Utility District, *Service Area*, available at http://www.ebmud.com/about-us/who-we-are/service-area/.
[2] East Bay Municipal Utility District, *Water Supply*, available at http://www.ebmud.com/water-and-drought/about-your-water/water-supply/.
[3] Interview with Sophia Skoda, Treasury Manager, Richard Lou, Principal Management Analyst, Saji Pierce, Attorney, EBMUD, in Oakland, CA (Oct. 6, 2016) [hereinafter EBMUD Interview].
[4] East Bay Municipal Utility District, *Water Rates*, available at http://www.ebmud.com/water-and-drought/water-rates/.
[5] EBMUD Interview, *supra* note 3.
[6] *Id.*
[7] *Id.*
[8] *Id.*
[9] *Id.*
[10] This trend of low enrollment is unfortunately quite common with customer assistance programs offered by water utilities in California (and beyond). For example, according to a member of the San Francisco Public Utility Commission's Citizens' Advisory Committee, of the estimated 70,000 accounts eligible for the utility's water CAP, only 1700 are enrolled.

In short, like many large utilities in California, EBMUD would like to subsidize low-income customers' water rates, but is constrained by Proposition 218.[11] EBMUD would welcome state support in a number of ways. First, and foremost, the state could help utilities subsidize low-income customers with lifeline rates and other solutions by working to repeal or amend Proposition 218.[12] The state could also help utilities to fund a lifeline rate for low-income customers, especially if Proposition 218 remains in place.[13] EBMUD also suggested that it might be useful for the state to provide a clear statement that tiered water rates comply with Proposition 218—thus mitigating the risk that utilities will be sued when they tier rates.

B. IRVINE RANCH WATER DISTRICT

Irvine Ranch Water District (IRWD) serves a population of 390,000 in 88 square miles.[14] The majority of its service connections are residential.[15] It has one of the most customized tiered water rate structures in the state.

IRWD's tiered rates are budget-based and vary according to a number of factors. These factors include: the type of home, the number of people in the household, the outdoor landscape area, and the weather of a given billing period.[16] The table below illustrates how the different tiers are allocated to a household's water budget.[17] IRWD derives these higher rates from higher cost sources of water (specifically imported water) and additional conservation and outreach.[18]

Monthly Water Rates for Fiscal Year 2016 -17

Irvine Ranch Rate Area - Residential Water Rates			
Tier	% of Monthly Water Budget Residential with Outdoor	% of Monthly Water Budget Multi- Family with No Outdoor	FY 2016-17 Rates Per CCF 1 CCF = 748 gallons
Tier 1 Low Volume	0 -40 %	0-60%	$ 1.21
Tier 2 Base Rate*	41 -100%	61-100%	$ 1.65
Tier 3 Inefficient	101-130%	101-120%	$ 4.01
Tier 4 Wasteful	131+	121+	$12.01

*your monthly water budget

Like EBMUD, IRWD emphasized that utilities appreciate flexibility in setting their rates and IRWD has been constrained by Proposition 218 in helping their low-income customers (the majority of whom are seniors on a fixed budget) when their water bills are unaffordable.[19] IRWD representatives did note that because low-income households tend to use less water, their budget-

[11] EBMUD Interview, *supra* note 3.
[12] *Id.*
[13] *Id.*
[14] Telephone interview with Fiona Sanchez, Director of Water Resources, IRWD (Nov. 2, 2016) [hereinafter, IRWD Interview].
[15] *Id.* (110,000 service connections including residential, commercial, agricultural; 5,000-6,000 of each of latter two categories, the rest are residential).
[16] Irvine Ranch Water District, *Residential Water Rates*, available at http://www.irwd.com/services/residential-water-rates.
[17] *Id.*
[18] IRWD Interview, *supra* note 14.
[19] *Id.*

based system typically results in lower bills for low-income customers. [20] It also has a system to allow customers to request variances, if the household has more people than the current water budget contemplate.[21] Similarly, if someone in the household has a medical condition that makes it necessary for them to use more water, a variance is available if the household submits a doctor's verification.[22]

IRWD would also be interested in the state providing guidance, but not mandates, for utilities on tiered ratesetting after the *San Juan Capistrano* decision,[23] as a way to protect utilities from lawsuits.

[20] *Id.*
[21] *Id.*
[22] *Id.*
[23] *Id.*

APPENDIX II: NOTES ON PROGRAM ADMINISTRATION TO MAXIMIZE EQUITY

A deep dive into program administration is beyond scope of our inquiry; however, we share below some observations based on our interviews with various stakeholders and experts.

A. CONSIDERING A HYBRID ADMINISTRATION MODEL WITH MINIMUM STATEWIDE STANDARDS

During interviews with utilities, it was clear that larger, more sophisticated utilities would be most likely to support a program that allowed them to manage their own water affordability programs.[24] Smaller utilities, on the other hand, appear to prefer the state to manage a program so that they are not overburdened. This suggests the state may want to create a hybrid program that allows for both utility-managed programs and state-managed programs, with statewide minimum standards to ensure consistency.

A number of utilities, including EBMUD, Los Angeles Department of Water and Power, and Contra Costa Water District,[25] already have customer assistance programs. These utilities have developed outreach, administration, and enrollment, and a hybrid program would take advantage of the expertise already existing at various utilities.

Not all of these programs are equal, however. For example, Contra Costa's current program only applies to seniors over 62 and people with disabilities.[26] Other programs have different benefit levels from a flat dollar amounts off the bill to a percentage discount on the fixed meter charge. These benefits are not generally aligned with the affordability of water in that local context. Even when there is a robust program, program enrollment may be low.[27] As a result, programs would need to adopt minimum, statewide standards for eligibility, enrollment, and assistance. This would also be the case if the state wanted to hand over administration entirely to the utilities

B. CONSIDERATIONS FOR A UTILITY-MANAGED PROGRAM

1. Establishing Minimum Standards and Other Protections

If counties or local utilities are responsible for administering the program, to ensure equitable access to affordable water there must be: (1) statewide minimum standards; (2) monitoring of program implementation; and (3) the potential for the state to assume administrative responsibility if standards are not met or program penetration is low. The statewide minimum standards should include the elements outlined above as well as a standardized appeals process for declined applicants and other issues.

[24] EBMUD Interview, *supra* note 3; Telephone Interview with Katie Porter and Wendy Broley, Staff Engineers, California Urban Water Agencies (CUWA) (Feb. 23, 2017) [hereinafter CUWA Interview].
[25] CUWA Interview, *supra* note 24.
[26] Contra Costa Water District*, CCWD Lifeline Rate Information*, available at http://www.ccwater.com/237/CCWD-Lifeline-Rate-Information.
[27] For example, thirty people were enrolled in the Santa Rosa water rate assistance program. Telephone Interview, Elise Howard, Santa Rosa City Water (Nov. 1, 2016).

2. Providing Program Support to Small Utilities

If utilities manage their programs funded through water rate charges, the state may want to consider some form of cross-subsidization and an option for state control. While the utilities serving the majority of Californians are large and sophisticated, many are much smaller and do not have the administrative capacity to manage an affordability program. These smaller utilities also generally serve a larger percentage of low-income customers, and have expressed concerns about administering the program on their own. If suddenly responsible for outreach, enrollment, eligibility verification, billing, and collecting funds, some utilities would not be able to handle these new burdens. This in turn would negatively affect program penetration and effectiveness in these service areas and impact low-income water ratepayers.

C. Incorporating Private Water Utilities May Require Some Delicate Balancing

The question remains about whether a state-funded program would subsidize customers of both public and private utilities or just public utilities' customers. On the one hand, low-income customers should be able to realize their human right to affordable water regardless of whether they are served by a public or private utility. One the other hand, if the state were to fund an affordability program through the general fund or a tax, there may be some concerns about subsidizing private utilities with tax dollars. Doing so may also unnecessarily duplicate the CPUC's existing oversight of assistance programs implemented by investor-owned utilities, to the extent these programs meet or could be modified to meet any statewide standards established under AB 401.

D. Funding Considerations

Funding a rate assistance program through a public goods charge at the utility level would make administration of the program by the utility more appealing. Utility administration would remove the need for funding to flow from the utility to the state and then back to utility's low-income customers. However, this would make cross-subsidization more challenging and could negatively impact smaller utilities with a larger percentage of low-income customers in their rate base.

Funding of a rate assistance program through a state tax would allow the program to be more easily administered at the state level and might more equitably distribute funding to low-income customers. However, any state-wide tax should not further burden low-income water users. For example, a tax on bottled water would inequitably impact low-income water users who must buy bottled water to avoid contaminated tap water.

E. Summary of Recommendations on Program Administration

- If the Program is administered by local entities, the Board should establish minimum statewide standards for water affordability and monitor program implementation.

- Because small utilities may struggle to implement the Program, the state should either provide support or manage Program implementation for these systems.
- The Board should consider a hybrid administration model with minimum statewide standards. Under this model, larger utilities would implement the Program while smaller utilities would benefit from state support or direct administration.
- The Board should carefully explore whether the Program should provide funding to private utilities, recognizing that while all Californians should have access to the same benefit, it may not be appropriate to subsidize private corporations with public dollars.
- Any funding mechanism should be crafted for ease of administration, non-regressivity for low-income households, and equity across differently situated communities and water systems.

APPENDIX III: A PROPOSAL FOR A PROPOSITION 218-COMPLIANT STATE LIFELINE WATER RATE

Given the constraints of Proposition 218, a uniform, state lifeline water rate may be the best and simplest way to ensure low-income Californians have access to affordable water. Should the Board choose to pursue this option, this section provides guidance on a path to creating a state lifeline water rate that complies with Proposition 218, keeps the costs to the state reasonable, and maintains utility control over ratesetting.

To establish a uniform state lifeline rate, the state should adopt legislation that:

1. Directs all water utilities to provide an appropriate minimum quantity of "lifeline" water to low-income customers for an appropriate nominal fee;[28]
2. Directs the State Board to determine the appropriate "lifeline" water quantity and fee to ensure water affordability for all Californians;
3. Directs the state to reimburse publicly-owned utilities (POUs) for the difference between the cost of providing the "lifeline" water and the fee set by the Board; and
4. Directs the Public Utilities Commission to allocate the funds necessary for investor-owned utilities (IOUs) to provide "lifeline" water at the fee set by the Board.

Proposition 218 restricts the fees that local public agencies may charge for property-related services and imposes several procedural and substantive limits on such fees.[29] Nonetheless, as explained below, each of the proposed components of this legislation may be adopted and implemented within the constraints of Proposition 218.

1. Direct all water utilities to provide an appropriate minimum quantity of "lifeline" water to low-income customers for an appropriate nominal fee.

Proposition 218's procedural and substantive limits apply when a local agency is "imposing or increasing" a property-related fee.[30] The mandate to offer a "lifeline" rate would require utilities to *decrease* their existing rates, not impose[31] new fees or increase existing fees.[32] Accordingly, POUs would not trigger Proposition 218 by offering the lower "lifeline" rate.

Nor would the fact that the "lifeline" rate is set below the cost of service cause it to violate Proposition 218. Proposition 218 caps property-related fees at the cost of service, but it does not

[28] As noted above, we recognize that the option that is both most cost-effective and allows utilities to retain the most control over ratesetting would be for the state to support and encourage utilities to adopt a lifeline tier set at the cost of service for providing a basic amount of water to all customers in their service area and then reimburse utilities for the difference between their base tier and the state lifeline water rate (for low-income customers). However, due to concerns about the legal and financial challenges that utilities may face in making these changes to their rate structures, this proposal offers an alternative designed to reduce this burden on utilities.
[29] Cal. Const., art. XIII D, § 6.
[30] Cal. Const., art. XIII D, § 6(a).
[31] *See, e.g.*, *Citizens Assn. of Sunset Beach v. Orange County Local Agency Formation Com.*, 209 Cal. App. 4th 1182, 1194 and n.17 (2012) ("impose" usually refers to the initial enactment).
[32] Cal. Const., art. XIII D, § 6(a);

impose a floor for these fees.[33] So long as the POUs do not use customer fees to subsidize the costs of serving other customers, the rates will not run afoul of Proposition 218.[34]

2. Direct the State Board to determine the appropriate "lifeline" water quantity and fee to ensure water affordability for all Californians.

This component of the legislation would provide flexibility to adjust "lifeline" water quantities and fees to changing conditions in the future. Proposition 218 would not apply to this action by the State Board, both because the Board is not a local agency and therefore not subject to the limits on property-related fees[35] and because the utilities would charge the "lifeline" fees, not the state board.

State law already establishes an Office of Sustainable Water Solutions within the State Board to "ensure the effective and efficient provision of safe, clean, affordable, and reliable drinking water and wastewater treatment services."[36] The Office may take numerous actions to carry out this mandate, including actions "[a]dvancing the delivery of affordable, safe drinking water to disadvantaged communities throughout the state."[37] The "lifeline" rate falls within this existing authority because it would advance the delivery of affordable water to disadvantaged communities. Nonetheless, it would be useful to make this existing authority more explicit and specific.

In setting a "lifeline" water quantity and fee, existing law would also require the State Board to consider the state's policy that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."[38]

3. Direct the state to reimburse POUs for the difference between the cost of providing "lifeline" water and the fee set by the State Board.

Proposition 218 does not prohibit POUs from offering subsidized rates, provided the funds for subsidization do not come from other ratepayers.[39] However, pursuant to Proposition 26, the legislation would need to be adopted by a two-thirds vote of the Legislature if it results in "any

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[33] Cal. Const., art. XIII D, § 6(b)(1), (3); *Morgan v. Imperial Irrigation District*, 223 Cal. App. 4th 892, 923 (2014) ("[N]othing in [Proposition 218] prohibits an agency from charging less than the proportional cost of service.").
[34] *Capistrano Taxpayers Assn., Inc. v. City of San Juan Capistrano*, 235 Cal. App. 4th 1493, 1506 (2015). As an alternative to the approach proposed here, if the Legislature mandates that utilities offer a "lifeline" rate, POUs could incorporate the costs of doing so into their rate structures as costs of service without violating Proposition 218. *See Connell v. Superior Court*, 59 Cal. App. 4th 382, 387, 401, 403 (1997) (upholding fees levied by water district to cover the costs of complying with a state mandate). However, Proposition 218 prohibits POUs from imposing or increasing fees if a majority of property owners protest. Cal. Const., art. XIII D, § 6(a)(2). Such protests could prevent POUs from adopting the necessary rate changes, and this could leave POUs without sufficient funds to cover the costs of the "lifeline" rate. To avoid such an outcome, we propose that the state fund the "lifeline" rate that would be offered by POUs.
[35] The limits on property-related fees only apply to fees imposed by local agencies. Cal. Const., art. XIII D, §§ 2(a) (defining "agency" as local government), 6(a) (requiring an "agency" to meet procedural and substantive requirements for property-related fees).
[36] CAL. WATER CODE § 189(a), (b).
[37] CAL. WATER CODE § 189(b)(4).
[38] CAL. WATER CODE § 106.3.
[39] Cal. Const., art. XIII D, § 6(b)(1), (3); *Capistrano*, 235 Cal. App. 4th at 1506; *Morgan*, 223 Cal. App. 4th at 923.

taxpayer paying a higher tax."[40] If the funds could be allocated without a tax increase, the two-thirds vote would not be necessary.

4. Direct the Public Utilities Commission to allocate the funds necessary for IOUs to provide "lifeline" water at the fee set by the State Board.

IOUs are not subject to Proposition 218 because they are not public agencies.[41] This means IOUs may build the costs of the "lifeline" rate into their rate structure.

The "lifeline" mandate could mirror the existing mandate for low-income electricity rate assistance programs. Pursuant to state statute, IOUs are required to fund programs for low-income electricity customers, including the California Alternative Rates for Energy (CARE) Program, and the Public Utilities Commission is required to allocate the funds necessary to meet low-income objectives.[42]

[40] Cal. Const., art. XIII A, § 3(a).
[41] Cal. Const., art. XIII D, §§ 2(a), 6(a).
[42] CAL. PUB. UTIL. CODE §§ 382, 399.9.

APPENDIX IV: LOOKING TO THE FUTURE: SUPPORTING INFRASTRUCTURE IMPROVEMENTS TO CONTROL COSTS

Below we provide further detail on the importance of supporting long-term investment in infrastructure. A few in-depth interviews with individuals who work in the area, along with our research, made clear that to help stem rising water costs to low-income households, and correspondingly, any publicly funded affordability program, the state should work to contain costs associated with common infrastructure issues through preventative grants and collaboration with utilities.[43]

A. UPDATING OUR INFRASTRUCTURE

Across the United States, a lack of investment in water infrastructure is a major factor in the dramatic rise in household water costs. Through water and sewer rates, consumers pay 90 percent of the cost to maintain and operate current water and sanitation infrastructure in the U.S.[44] To keep rates low, utilities have deferred investment in infrastructure maintenance and upgrades, but now this bill is coming due. Although the federal government provided grants to finance major investments in the creation of water supply networks and treatment facilities in the 1970's, this infrastructure is reaching the end of its useful life.[45] In 2013, the American Society of Civil Engineers gave the U.S. a water infrastructure grade of "D."[46] However, it seems unlikely that consumers can afford the necessary infrastructure improvements if utilities must finance them through rate increases alone; the U.S. Environmental Protection Agency "estimates that over the next 20 years, $200 to $400 billion [dollars] will be required to ensure the sustainability of water and wastewater systems."[47]

This lack of investment in water infrastructure has a disproportionate effect on low-income households and communities of color. A recent Georgetown Law report on water affordability in the U.S. found that "low-income customers are hit hardest[]" by water rate increases prompted by utilities shifting the costs of infrastructure maintenance and improvement

[43] These infrastructure issues were identified from stakeholder interviews.

[44] Brett Walton, Prices of Water 2015: Up 6 Percent in Major U.S. Cities 41 Percent Rise Since 2010, Circle of Blue (April 22, 2015), available at http://www.circleofblue.org/waternews/2015/world.

[45] American Society of Civil Engineers, 2013 Report Card for America's Infrastructure: Drinking Water (2013), available at http://www.infrastructurereportcard.org/a/#p/drinking-water/overview [hereinafter 2013 U.S. Infrastructure Report Card]; Georgetown Law Human Rights Institute, Tapped Out: Threats to the Human Right to Water in the Urban United States (April 2013), pp. 20-22, available at http://www.law.georgetown.edu/academics/centers-institutes/human-rights-institute/upload/HumanRightsFinal2013.pdf [hereinafter Tapped Out Georgetown Report].

[46] 2013 U.S. Infrastructure Report Card, *supra* note 45.

[47] UN Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Mission to the United States of America, ¶17, U.N. Doc. A/HRC/18/33/Add.4 (Aug. 2, 2011), available at http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4_en.pdf (by Catarina de Albuquerque); see also Claudia Copeland and Mary Tiemann, Congressional Research Service, "Water Infrastructure Needs and Investment: Review and Analysis of Key Issues," (December 21, 2010), available at https://www.fas.org/sgp/crs/homesec/RL31116.pdf; Tapped Out Georgetown Report, *supra* note 45 at pp. 20-21, (noting that other estimates range into the trillions); Food and Water Watch, Our Right to Water (May 2012), p. 3, available at http://documents.foodandwaterwatch.org/doc/OurRighttoWater.pdf.

onto consumers.[48] Likewise, at a 2014 consultation with the U.S. government on environmental issues, experts presented "statistical evidence based on U.S. Census data indicating that communities of color are much more likely to lack infrastructure and adequate facilities than are white populations."[49]

California is subject to this worrisome trend; our water infrastructure is aging.[50] While the useful life of a water pipe is between 50-100 years, many pipes in the state today are nearly 75 years old.[51] Not surprisingly, systems with older pipes have more leaks and higher water loss ratios. The water loss ratio is the amount of water that the system loses from the time the water is treated to when it arrives at the customer meter. Though these leaks do not directly impact the customer—leaks that occur before the meter do not appear on a customer bill—the costs of these leaks on the system is high. Most western water systems average a loss ratio of 10 percent.[52] This loss has a significant impact on a utility's bottom line because utility cannot recover their fixed costs from the lost water. The utility must recoup the cost of these losses across the ratepayer base in the form of higher base rates.

Pipe leaks often start small, which makes them difficult to detect. Moreover, since water pipes are frequently laid under roadways, the pipes are designed to pull the water leak away from the surface to prevent damage to the road.[53] This design makes early intervention difficult. Nevertheless, due to the high water pressure, a small pinhole in a pipe can quickly develop into a gushing leak, so many leaks are eventually detected.

Even though a large leak is easier to detect than a small pinhole leak, the cost of repairing either is prohibitive in many instances. Replacing a six-inch water main costs on average $400 per foot in California.[54] In dense urban areas with multiple levels of subterranean infrastructure, that cost can easily double.[55] For example, in the Bay Area, replacing water infrastructure requires coordination with high-speed fiber optic cable that is also laid in the street. These cables support the productivity of the high-tech job sector and breaking them can cost up to $1,000 a minute.[56] Digging open streets also exposes municipalities to liability, requires re-routing traffic and public transit, as well as a replacement source of water during the construction. Because of

[48] Tapped Out Georgetown Report, *supra* note 45 at p. 22.

[49] International Human Rights Law Clinic, Berkeley Law, "United States Government Consultation on Environmental Issues Relating to the Universal Periodic Review: A Summary. October 7, 2014, UC Berkeley School of Law," p. 8, available at https://www.law.berkeley.edu/files/UPR_Enviro_Consultation_Outcome_Doc_141208.pdf. For example, studies show that "African Americans in the United States were more than twice as likely and Hispanics were more than three times as likely as non-Hispanic whites to live in homes with incomplete plumbing." National Law Center on Homelessness and Poverty, "Simply Unacceptable": Homelessness and the Human Right to Housing in the United States in 2011 (2011), pp. 48-49, available at http://www.nlchp.org/documents/Simply_Unacceptable.

[50] US Environmental Protection Agency, Drinking Water and Infrastructure Needs Survey and Assessment 19 (2011), available at https://www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf (finding that California has the largest water infrastructure needs).

[51] Interview with Margo Schueler, Construction/Maintenance Superintendent, EBMUD (Feb. 13, 2017) [hereinafter Margo Schueler Interview].

[52] *Id*.

[53] *Id*.

[54] Interview with Glenn Reynolds, Principal, Water Solutions, Inc. (March 23, 2017) [hereinafter Glenn Reynolds Interview].

[55] *Id*.

[56] *Id*.

these costs, utilities often wait for multiple failures to occur before they consider replacing the pipe.[57]

B. UPGRADING OUR WATER METER TECHNOLOGY

A related issue is outdated water meter technology. Though utilities are undoubtedly losing water from leaks, there is an ongoing debate over what portion of that loss is attributable to older meters that are under-registering the water flow. Smaller water systems in particular tend to use cheaper meters that lack the technology to register water below a certain flow. Even a standard meter is unable to register water below 0.25 gallons per minute.[58] Since most household leaks drip slowly, water meters might not even be registering this type of consumption. Not only do water systems lose money on water that is not registered, if the leak is not showing up on the bill, households won't know there is a problem.[59] Though there is little data available on how much water is used but not registered due to dated meter technology, having this data is critical to targeting resources where they are most needed.

C. UPGRADING OUR SEWER-SANITARY SYSTEMS IN LIGHT OF WATER CONSERVATION

Drought-time water reductions were a major success in California.[60] As part of these conservation efforts, many Californians installed low-flow fixtures, including faucets and toilets. While conserving water is critical, the SWRCB should also recognize the interrelated nature of water systems and the sewer-sanitary system. Domestic conservation directly impacts sewer systems.

California's water and sewer systems were not designed to function as an integrated system.[61] Most sewer systems were designed with a large capacity to facilitate future development. Due to their large size, sewer pipes require a certain amount of water pressure to expel solid waste. Because of the success of conservation efforts, the volume of water running through sewer pipes is less than half the total capacity.

Low-flow toilets are emblematic of this issue. Low-flow toilets do not have enough water flow to create the requisite pressure to push solid waste through the pipes. The lack of sufficient outflow has two main impacts on sewers. First, sewer system clogs and backups become more common. This creates a cost for both the household and the municipality depending on where the backup occurs. Second, waste sits in the sewer pipes for longer periods of time. This waste releases hydrogen sulfide, which gradually corrodes the pipe's inner casing.[62] As the pipe

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[57] Margo Schueler Interview, *supra* note 51.

[58] Ultrasonic flow meter technology, by contrast, is able to register water flow up to 1/30 a gallon per minute. *See* Glenn Reynolds Interview, *supra* note 54.

[59] Even where water leaks do show up on a bill, the prevalence of bi-monthly billing makes it longer for customers to identify the issue.

[60] *See e.g.*, Bettina Boxall & Rosanna Xia, *Big month for conservation: Californians cut water use by 31% in July*, L.A. TIMES (August 27, 2015), http://www.latimes.com/local/lanow/la-me-ln-july-urban-water-savings-20150827-story.html.; Kurtis Alexander, Higher water rates on tap as utilities cover losses from drought, S.F. GATE (April 14, 2015), http://www.sfgate.com/bayarea/article/California-drought-Get-ready-to-pay-more-at-the-6197359.php.

[61] Margo Schueler Interview, *supra* note 51.

[62] *Id.*; Glenn Reynolds Interview, *supra* note 54; Darryl Fears, The Washington Post, "Conserving water has cost California in trees, taxes, and utility problems," February 28, 2016, available at http://www.pressreader.com/usa/the-washington-post-sunday/20160228/281702613793726.

corrodes, solid waste leaches into the surrounding areas, contaminating groundwater and other fresh water sources.[63] This process creates a positive feedback loop for the consumer as the contamination drives up the cost of treating water for the domestic customer.

Thus, while AB 401 should not compensate low-income households for wasteful water use, the program may want to direct at least some conservation measures at the utility level. This will require investing in water and sewer pipe upgrades and integrating the systems to have an integrated "one water" approach.

D. SUMMARY OF RECOMMENDATIONS ON INFRASTRUCTURE IMPROVEMENTS

- An integrated approach to safe, affordable water for all should include attention to the need for infrastructure improvement measures and funding to control ratepayer costs.
- Because domestic water consumption is such a small percentage of water usage in California, AB 401 should direct at least some of their conservation efforts at other actors. Investing in new water pipes and associated infrastructure—including potential water meters—will enable utilities to recover costs of actual water usage as well as eliminate wasteful water loss.
- Though addressing issues with sewer-sanitary systems is outside the mandate of AB 401, the Board should consider streamlining their existing grant making and the ultimate Water Assistance Program recommendations with an integrated "one-water" approach.
  - ✓ Ideally this means updating sewer systems so that much-needed conservation does not impair their efficiency. In the meantime, utilities can help residential and commercial customers install sump pumps and ejector pumps to supplement the loss in pressure when the system backs up.

[63] Angelique Hockett, An Investigation of the Potential for Side-Sewer Infiltration to Local Freshwater Systems 6-7 (2016), available at https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/35641/Hockett_washington_0250O_15620.pdf;sequence=1.

APPENDIX V: MITIGATION COSTS OF NITRATE CONTAMINATION

Any sustainable affordability program will need to mitigate ongoing costs from contamination in rural areas. We outline some of those costs below, noting that absent intervention, ongoing and settled contamination will continue to drive up water costs in rural areas. Below, we look specifically at the current costs of addressing nitrate contamination.

Estimated costs associated with access to safer nitrate levels in drinking water fall into two broad categories: (1) improving the existing water source; and (2) providing alternative supplies.[64] While not an exhaustive list, this section provides an overview of total estimated costs (capital expenditures and operations and maintenance (O&M)) associated with each solution.

This section first examines options for improving the existing water source and the total annual costs[65] per household associated with one domestic well system[66] and one community public water system (CPWS).[67] This is followed by a comparison of the costs of various options to provide alternative supplies to the same systems.

Then, a case study of the highly susceptible populations in the Tulare Lake Basin and Salinas Valley examines solutions and estimates projected costs to address nitrate contamination of drinking water in the most high-risk areas in California. This case study is useful for initial cost-assessment purposes, as it demonstrates the potential use of a mix of options in communities that would likely be the highest priority for remediation efforts. We chose these regions because their communities overwhelmingly depend on groundwater for drinking water; and there are high levels of nitrate in domestic systems and CPWSs, as well as numerous health and financial challenges to securing safe water.[68] Examining the costs of addressing nitrate contamination in the case study area thus offers a practical look at how much it would cost to implement a mix of remediation measures in the areas of greatest need.

A. IMPROVING THE EXISTING WATER SOURCE

The options for improving an existing water source are: (1) blending; (2) drilling a deeper well; (3) drilling a new well; (4) treating community supply; and (5) treating household supply.

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[64] Kristin Honeycutt et al., Technical Report 7: Alternative Water Supply Options for Nitrate Groundwater Contamination 48 (2012), available at http://groundwaternitrate.ucdavis.edu/files/139108.pdf [hereinafter Technical Report 7].

[65] Technical Report 7, *supra* note 64, at p. 67. Costs are based on 2010 dollars for 3.3 persons per household and 2.15 gallons per household per day of potable water consumption, as well as a twenty-year life of product/equipment/materials (except for household treatment—10 years and bottled/trucked water—no capital). *Id.* All costs are discounted over a 20-year period at a 5% discount rate, except for the RO POU estimate and trucked and bottled water costs. *Id.* at p. 80.

[66] A domestic system is either a self-supplied household or local small water system with fewer than four connections. Technical Report 7, *supra* note 64, at p. 19. The estimated costs are based on one self-supplied household.

[67] Costs are based on a community public water system serving 1,000 households. Technical Report 7, *supra* note 64, at p. 67.

[68] Technical Report 7, *supra* note 64, at p. 3.

1. Blending

"Blending" is the process of diluting a source with higher nitrate levels with a nitrate compliant source.[69] This is typically the first choice and least expensive option when such a compliant source is available.[70] This option is only recommended for CPWS with more than one well and the ability to obtain a low-nitrate source.[71] The total annualized cost per year for a 1,000-household community ranges from $83,000 to $148,000, or $83 to $148 per household.[72]

Costs of Blending (per household)		
Itemized Cost[73]	**Domestic Well**	**CPWS**
Initial Capital Cost[74]	N/A	$248.75
Annual O&M Cost[75]	N/A	$65 - $130
Total Annual Cost	N/A	**$83 - $148**

2. Drilling a Deeper Well

Drilling a deeper well is generally considered a temporary solution, because any nitrate contaminating the original, shallower well can infiltrate the new, deeper well.[76] The total cost for drilling a deeper a domestic well ranges from $860[77]-$3,300[78] per household per year.[79] For one CPWS, total costs range from $84,000 to $98,000, or $84 to $98 per household.[80]

Costs of Drilling Deeper Well (per household)		
Itemized Cost[81]	**Domestic Well**	**CPWS**
Initial Capital Cost[82]	$1,000 - $4,000	$22 - $200
O&M Cost	$62	$82
Annualized Cost	**$860 - $3,300**	**$84 - $98**

[69] Technical Report 7, *supra* note 64, at p. 49.
[70] Technical Report 7, *supra* note 64, at p. 49.
[71] Technical Report 7, *supra* note 64, at p. 68.
[72] Technical Report 7, *supra* note 64, at p. 69. This number is based on 14-inch casing well with flow rates of 300 gallons per minute (gpm) (lower bound) and 600 (upper bound), and a well depth of 700 feet. *Id.* A single blending station is assumed for each source. *Id.*
[73] Technical Report 7, *supra* note 64, at p. 69.
[74] This cost includes indirect construction costs for engineering, contingency, and permitting. Technical Report 7, *supra* note 64, at p. 68.
[75] This O&M cost assumes that there is an uncontaminated source available for blending. Technical Report 7, *supra* note 64, at p. 68.
[76] Technical Report 7, *supra* note 64, at p. 49. Unless one of three conditions are met. See *id.* at p. 50.
[77] Technical Report 7, *supra* note 64, at p. 70.
[78] Upper bound at $200 per foot. Technical Report 7, *supra* note 64, at p. 70.
[79] This is assuming the well is to be a 10 gpm, 8-inch casing well that was originally 300 feet and deepened by 200 feet to 500 feet. Technical Report 7, *supra* note 64, at p. 70.
[80] Technical Report 7, *supra* note 64, at p. 70. This is based on the assumption that a public supply well is to be 700 (gpm), 14 inch casing well, originally 500 feet deep and deepened by 200 feet to 700 feet. *Id.*
[81] Technical Report 7, *supra* note 64, at p. 70.
[82] Drilling cost per foot for domestic wells range from $50 to $200, and drilling costs for a CPWSs per foot ranges from $110 to $1,000. Both wells are estimated to be deepened by 200 feet. Technical Report 7, *supra* note 64, at p. 70.

3. Drilling a New Well

Drilling a new well is also considered a temporary solution to addressing nitrate contamination in groundwater due to the potential for nitrates from the old well to contaminate the new one.[83] A new domestic well costs a household approximately $2,100-$3,300 annually.[84] The total cost of drilling a new well for one CPWS ranges from $40,000 to $290,000, or $40 to $290 per household.[85]

Costs of Drilling a New Well (per household)		
Itemized Cost	**Domestic Well**	**CPWS**
Initial Capital Cost	$25,000 - $40,000	$40 - $290
Annual O&M Cost	$60	$22 - $159.5[86]
Total Annual Cost	**$2,100 - $3,300**	**$40 - $290**

4. Treating Community Supply

The most common community treatment option is centralized groundwater treatment through ion exchange or reverse osmosis.[87] Once in place, this treatment could work as a long-term solution to nitrate contamination. Community supply treatment ranges from $93,000 to $105,000 per CPWS, or $93 to $105 per household.[88] The cost decreases with increasing capacity, reflecting economies of scale.[89]

Costs of Community Supply Treatment (per household)		
Itemized Cost[90]	**Domestic Well**	**CPWS**
Initial Capital Cost	N/A	$15 - $47
Annual O&M Cost	N/A	$57 - $87
Total Annual Cost	N/A	**$93 - $105**

5. Treating Household Supply

Household treatment options include reverse osmosis at the Point-of-Use (POU) or ion exchange at the Point-of-Entry (POE).[91] A POU solution commonly uses reverse osmosis for

[83] Technical Report 7, *supra* note 64, at p. 49.
[84] Technical Report 7, *supra* note 64, at p. 70.
[85] Technical Report 7, *supra* note 64, at p. 70. The annualized total costs for drilling a new will depend on how many people are being served. *Id.* at p. 71. A CPWSs may also elect to modify an existing well. See *id.* at p. 50.
[86] While Technical Report 7 assumes that O&M costs are included in the cost model, Technical Report 7, *supra* note 64, at p. 70, the Report estimates that the average O&M cost for drilling new well is 55% of total annual cost. *Id*. at 82.
[87] Technical Report 7, *supra* note 64, at pp. 48–49.
[88] Technical Report 7, *supra* note 64, at p. 81.
[89] Technical Report 7, *supra* note 64, at p. 71.
[90] Vivian B. Jensen et al., Technical Report 6: Drinking Water Treatment for Nitrate (2012) p. 146, available at http://groundwaternitrate.ucdavis.edu/files/139107.pdf.
[91] Technical Report 7, *supra* note 64, at p. 49.

kitchen taps and is only used for drinking and cooking water, while a POE solution uses reverse osmosis or ion exchange for the entire house.[92]

There are regulatory limitations on a CPWS's ability to distribute POE or POU devices. The California Department of Public Health only permits a CPWS to use POUs in lieu of centralized treatment for compliance for up to three years or "until funding for the total cost of constructing a project for centralized treatment or access to an alternative source is available, whichever occurs first." [93] Further, POUs are only permitted as a temporary measure if the system serves fewer than 200 service connections and the CPWS has demonstrated that centralized treatment is not economically feasible within three years of the "system's submittal of its application for a permit amendment to use POUs.[94]"

Likewise, a CPWS may employ a POE system in lieu of centralized treatment for temporary compliance.[95] Indeed, water systems must consider a POE system before a POU device, unless the POE device is determined to be "not economically feasible or not as protective of public health as [a] POU [device]."[96] While the reason behind these restrictions is not explicitly laid out in the Health and Safety Code, it appears that policymakers want to incentivize the implementation of more sustainable treatment solutions (like ensuring the entire community's supply is remediated) over interim emergency solutions at the individual level that may prove harder and more costly to maintain and monitor over the long run.[97]

a. POU Costs

The lower bound of the total annual cost[98] for POU devices includes unit purchase, installation, scheduling time, indirect costs, and equipment maintenance. The upper bound includes an additional cost for associated public education and outreach.[99] This last component is required for systems using a POU device for emergency purposes to comply with drinking water quality standards.[100]

Costs of POU Devices (per household)		
Itemized Cost[101]	**Domestic Well**	**CPWS**
Initial Capital Cost	$406 - $1,981	$493 - $494
Annual O&M Cost	$197 - $1,781	$144 - $145
Total Annual Cost	**$250 - $2,038**	**$214 - $215**

[92] Technical Report 7, *supra* note 64, at p. 52.
[93] Technical Report 7, *supra* note 64, at p. 104 [citing CAL. CODE REGS. tit. 22 (2008)].
[94] Technical Report 7, *supra* note 64, at p. 104 [citing CAL. CODE REGS. tit. 22 (2008)].
[95] Technical Report 7, *supra* note 64, at p. 104 [referencing CAL. HEALTH & SAFETY CODE § 11680(a)(1)].
[96] Technical Report 7, *supra* note 64, at p. 104 [citing CAL. CODE REGS. tit. 22, § 64418 (2011)].
[97] *See* Technical Report 7, *supra* note 64, at p. 101; *see also* California State Water Resources Control Board, "Point of Entry and Point of Use Treatment—Emergency Regulations,", available at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/POEandPOUTreatment.shtml.
[98] Technical Report 7, *supra* note 64, at p. 73 ("Based on an average per capita water consumption of 100 gallons per person per day, 2.6 people per household, a discount rate of percent, and a discount period of ten years (the lifetime of the unit)").
[99] Technical Report 7, *supra* note 64, at p. 73.
[100] Technical Report 7, *supra* note 64, at p. 73.
[101] Technical Report 7, *supra* note 64, at p. 73.

b. POE Costs

The annualized total cost for one POE device per household is $397.[102] This cost includes unit purchase, installation, scheduling time, indirect costs, and all associated O&M costs.[103] POE devices are not NSF/ANSI certified for completely removing nitrate from drinking water, but could provide households with potable, low-nitrate water that carries a lower health risk if ingested. [104] POE devices are more cost-effective than POUs if treating more than eighteen gallons of water per day.[105]

Costs of POE Devices (per household)		
Itemized Cost	**Domestic Well**	**CPWS**
Initial Capital Cost	--	--
Annual O&M Cost	--	--
Total Annual Cost	**$397**	**$397**

B. CONNECTING TO ALTERNATIVE WATER SUPPLIES

The options for connecting to alterative water supplies are (1) piped connection to existing water system, (2) trucked water, and (3) purchased bottled or vended water.

1. Connecting to a Better Quality Water System

This connection to an alternative water system can take three forms: connecting to an existing system; connecting to a newly created system; or consolidating several small systems into a new regional system.[106] A piped connection to an existing system is an option for a community located near a well-functioning system with capacity.[107] While the SWRCB has jurisdiction to force consolidations,[108] political pressures from the larger system often hinders this process.

The lower bound consists of pipeline costs and a connection fee for a two-mile pipeline, while the upper bound includes pipeline costs, a connection fee, and engineering and administration costs for a five-mile pipeline.[109] The costs for a single domestic system and a CPWS are essentially the same, but a connection fee of $9,000 is assumed for one domestic system and $100,000 is assumed for one CPWS.[110]

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[102] Technical Report 7, *supra* note 64, at p. 74.
[103] Technical Report 7, *supra* note 64, at p. 74. Since there is not yet any POE unit certified for treating nitrate, the EPA used the cost for a POE unit certified for treating radium and included the capital and O&M cost in the total annual cost per device. *Id.*
[104] Technical Report 7, *supra* note 64, at p. 101.
[105] Technical Report 7, *supra* note 64, at p. 101.
[106] Technical Report 7, *supra* note 64, at p. 53.
[107] Technical Report 7, *supra* note 64, at p. 54.
[108] CAL. HEALTH & SAFETY CODE § 116680-4.
[109] Technical Report 7, *supra* note 64, at p. 75. Pipeline length will vary based on each individual project, and all pipeline projects are likely to incur some engineering and administrative costs at varying levels.
[110] Technical Report 7, *supra* note 64, at p. 73.

Costs of Connecting to a Better Quality Water System (per household)		
Itemized Cost	**Domestic Well**	**CPWS**
Initial Capital Cost[111]	--	--
Annual O&M Cost[112]	--	--
Total Annual Cost	**$52,400 - $185,000**	**$59.70 - $192.80**

2. Trucking Potable Water from a Better Source

Trucking water is an interim or emergency solution for very remote, small communities.[113] However, under California Department of Public Health (DPH) regulations, new CPWSs may not have trucked water delivered, and older systems are only permitted to use this option in an emergency.[114] This also option requires hiring a potable drinking water hauler who is licensed with the DPH.[115] Before water can be trucked, the truck must be "cleaned and inspected thoroughly, disinfecting all truck components with chlorine for 24 hours prior to delivery."[116]

Cost estimates in this section are for trucked water based on one domestic system and one CPWS serving 1,000 households in Tulare County. It would cost one domestic system a total of about $575 to received trucked water for 222 days, and about $950 for one year.[117] The total estimated cost for a CPWS is $2,850 for three days and approximately $350,000 for one year, or $350 per household for one year.[118]

Costs of Trucked Potable Water (per household)		
Itemized Cost	**Domestic Well**	**CPWS**
Initial Capital Cost	N/A	N/A
Annual O&M Cost	N/A	N/A
Total Annual Cost	**$950**	**$350**

3. Purchasing Bottled or Vended Water

Purchasing bottled water[119] or vended water[120] is a temporary solution for isolated domestic water systems.[121] The EPA does not allow CPWSs to distribute bottled water as a

[111] Technical Report 7 does not list this cost.
[112] Technical Report 7 does not list this cost.
[113] Technical Report 7, *supra* note 64, at pp. 53, 60.
[114] Technical Report 7, *supra* note 64, at pp. 60, 160.
[115] Technical Report 7, *supra* note 64, at p. 60.
[116] Technical Report 7, *supra* note 64, at p. 60.
[117] This is based on a 500 gallon RMR Water Truck traveling from Castaic to Tulare County for a 4 hour roundtrip at $100/hour, purchase of 500 gallons of local, safe drinking water supply at $0.35 per gallon, and a one-time 500 gallons cost. Technical Report 7, *supra* note 64, at p. 81. This cost excludes the cost for storage. *Id.*
[118] Technical Report 7, *supra* note 64, at p. 81. This is based on a 500 gallon RMR Water Truck traveling from Castaic to Tulare County for a 4 hour roundtrip at $100/hour, purchase of 7,000 gallons of local, safe drinking water supply at $0.35 per gallon, and a one-time. *Id.* at 82.
[119] "Bottled water" is defined as "any water that is placed in a sealed container at a water-bottling plant to be used for drinking, culinary, or other purposes involving a likelihood of the water being ingested by humans." CAL. HEALTH & SAFETY CODE § 111070.

means of complying with drinking water standards.[122] The annual cost for one household purchasing and receiving bottled water for one year is about $1,260.[123]

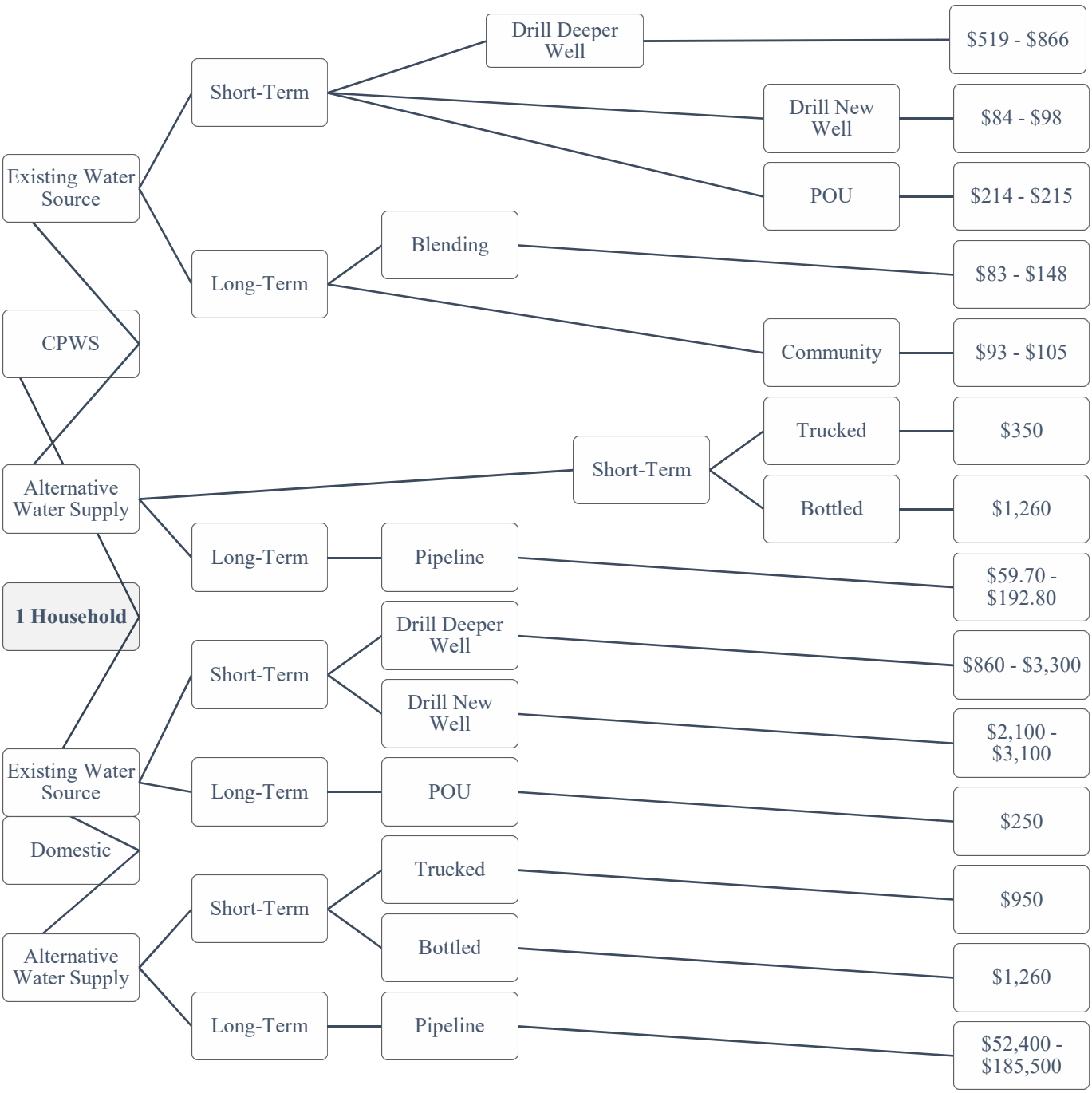
Costs of Purchased Bottled or Vended Water (per household)		
Itemized Cost	**Domestic Well**	**CPWS**
Initial Capital Cost	N/A	N/A
Annual O&M Cost	N/A	N/A
Total Annual Cost	**$1,260**	**$1,260**

C. SUMMARY OF REMEDIATION OPTIONS AND COSTS

Option	**Estimated Annual Cost Range (per household)**	
	Domestic Well	**CPWS**
Improve Existing Source (Sum of lower and upper bound ranges)	**$3,210 - $6,650**	**$514 - $856**
Blending	N/A	$83 - $148
Drill Deeper Well	$860 - $3,300	$84 - $98
Drill a New Well	$2,100 - $3,100	$40 - $290
Community Supply Treatment	N/A	$93 - $105
Household Supply Treatment[124]	$250	$214 - 215
Alternative Supplies (Sum of lower and upper bound ranges)	**$54,610 - $187,710**	**$1669.70 - $1,802.80**
Piped Connection to Existing	$52,400 - $185,500	$59.70 - $192.80
Trucked Water	$950	$350
Bottled Water	$1,260	$1,260

[120] "Vended water" is defined as "any water that is dispensed by a water-vending machine, retail water facility, or water from a private water source." CAL. HEALTH & SAFETY CODE § 111070.
[121] Technical Report 7, *supra* note 64, at p. 53.
[122]Technical Report 7, *supra* note 64, at p. 53.
[123] Technical Report 7, *supra* note 64, at p. 67. See *id*. at 75-6 ("To estimate the cost of bottled water, the National Academy of Sciences Hydration Study (2004) was used, assuming 3.3 people per household and predicting about 2.25 gallons per household-day needed for potable uses. Vended or bottled water can cost $0.25 to $1.30 per gallon, not including transportation costs (Pacific Institute et al. 2010). A common low price for water delivered near the city of Visalia by Alhambra Water is a 5-gallon bottle at $1.63 per gallon (Alhambra Water 2010). The annual cost for a household receiving Alhambra Water is about $1,260.").
[124] Costs are for a POU device and do not include public education.

D. Costs of Addressing Nitrate Groundwater Contamination Chart



APPENDIX VI: EXPLORING A FERTILIZER TAX TO REDUCE NITRATE CONTAMINATION AND FUND MITIGATION MEASURES

This appendix explores the possibility of establishing a fertilizer tax to reduce nitrate contamination of drinking water and to fund mitigation and other measures to reduce the impact of contamination on low-income communities. It describes the negative effects of nitrate contamination on drinking water sustainability and evaluates whether a fertilizer tax could be a good mechanism to address these problems. Finally, it offers two potential models for a fertilizer tax—a special-purpose tax and an excise tax—and compares their benefits and drawbacks. Because continued nitrate contamination will raise the cost of drinking water for low-income households and thus for any affordability program, we suggest that the Board should consider advising the Legislature to adopt a fertilizer tax to fund mitigation measures as well as the portion of program costs attributable to nitrate contamination.

1. Deterring Contamination with a Fertilizer Tax

Forcing the polluters responsible for anthropogenic pollution to internalize the costs of pollution with a fertilizer fee will both reduce pollution and create a fund to help the state support utilities whose groundwater is contaminated. It is also the most equitable way to deter contamination, ensuring that the responsible party bears the costs of managing contamination that damages human health or the environment, or undermines water affordability for low-income customers.[125] Taxing fertilizer is a neat solution in this regard. This tax, if set correctly, would both decrease fertilizer use and fund programs to clean up or mitigate contaminated drinking water. Rather than requiring the state or the community to fund the mitigation through water rates, those causing the pollution bear the burden and communities again have access to affordable, safe drinking water.

The types of contamination found in groundwater vary. Naturally occurring arsenic is the largest source of groundwater contamination.[126] However, the most frequently occurring pollutant caused by humans is nitrate,[127] caused by application of synthetic fertilizers and manure from dairies.[128] A 2012 report by the University of California found that, for the four California counties with the largest agricultural production in the U.S., 96 percent of groundwater contamination has been caused by nitrate leaching from agriculture.[129]

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[125] *What is the polluter pays principle?* Grantham Research Institute for on Climate Change and the Environment, London School of Economics and Political Science (Feb. 17, 2014), http://www.lse.ac.uk/GranthamInstitute/faqs/what-is-the-polluter-pays-principle/.

[126] California State Water Resources Control Board, Report to the Legislature, *Communities that Rely on Contaminated Groundwater Source for Drinking Water* 17 (Jan. 2013), available at http://www.swrcb.ca.gov/gama/ab2222/docs/ab2222.pdf [hereinafter SWRCB Contaminated Groundwater Report to Legislature].

[127] *Id*. at 16.

[128] *Questions and Answers*, *Addressing Nitrate in California's Drinking Water*, UC Davis, http://groundwaternitrate.ucdavis.edu/q-and-a/.

[129] Thomas Harter, et al., Addressing Nitrate in California's Drinking Water: With a Focus on Tulare Lake Basin and Salinas Valley Groundwater, (University of California, Davis, Center for Watershed Sciences, Report for the SWRCB SBX2 1 Report to the Legislature, January 2012), available at

Over six hundred thousand people in California have nitrate in their well water,[130] predominately in agricultural areas like the southern San Joaquin Valley, the Salinas Valley, and in the Southern California Inland Empire.[131] More than half (57 percent) of the 2.6 million people living in the Salinas Valley and in four counties in the San Joaquin Valley (specifically Fresno, Tulare, Kings, and Kern counties) depend on drinking water with nitrate levels exceeding federal safety standards.[132] Experts predict that this percentage may increase to 80 percent by 2050 if the State does not take stronger affirmative measures to prevent and remediate groundwater contamination in the area.[133] As the Board well knows, nitrate can cause serious health problems,[134] such as gastrointestinal diseases and a range of long-term illnesses, including various cancers, digestive tract impairments, thyroid conditions, and nervous system disabilities.[135] It can also have immediate toxic effects on vulnerable individuals such as babies and pregnant women.[136]

Not only does California fail to regulate nitrate usage, its tax policies actively encourage it. Farmers in California are currently exempt from paying state sales and use taxes on fertilizer if they apply it to crops that produce food for humans or animals.[137]

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http://groundwaternitrate.ucdavis.edu/files/138956.pdf [hereinafter Harter UC Davis Nitrate in Drinking Water Report].

[130] Kenneth Belitz, Miranda S. Fram & Tyler D. Johnson, *Metrics for Assessing the Quality of Groundwater Used for Public Supply, CA, USA: Equivalent-Population and Area*, Environmental Science & Technology 8330, 8334 (June 2015).

[131] SWRCB Contaminated Groundwater Report to Legislature, *supra* note 126 at 18.

[132] Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129; Carolina Balazs et al., *Social Disparities in Nitrate-Contaminated Drinking Water in California's San Joaquin Valley*, 119 ENVTL. HEALTH PERSP. 1272 (2011), 1275 (right column), available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230390/pdf/ehp.1002878.pdf [hereinafter Balazs Social Disparities in Nitrate-Contaminated Drinking Water Article].

[133] Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129 at pp. 5, 51.

[134] For medical studies on the health impacts of nitrate contamination, see Gupta, Sunil Kumar et al. "Recurrent acute respiratory tract infections in areas with high nitrate concentrations in drinking water." Environmental Health Perspectives, Vol. 108, Iss. 4. April 2000 at 363 to 366; Ward, Mary H. et al. "Workgroup report: Drinking water nitrate and health—recent findings and research needs." Environmental Health Perspectives, Vol. 113, Iss. 11. November 2005 at 1607 to 1614; Manassaram, Deana M. et al. "A Review of Nitrates in Drinking Water: Maternal Exposure and Adverse Reproductive and Developmental Outcomes." Environmental Health Perspectives, Vol. 114, Iss. 3. March 2006 at 320 to 327; Weyer, Peter J. et al. "Municipal drinking water nitrate level and cancer risk in older women: the Iowa Women's Health Study." Epidemiology, Vol. 11, Iss. 3. May 2001 at 327 to 338.

[135] Community Water Center, *Water And Health In The Valley: Nitrate Contamination Of Drinking Water And The Health Of San Joaquin Valley Residents*, (2011), pp. 8-9, available at http://www.communitywatercenter.org/water_and_health_in_the_valley [hereinafter CWC Water and Health in the Valley Report].

[136] Balazs Social Disparities in Nitrate-Contaminated Drinking Water Article, *supra* note 132 at 1272; Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129 at p. 9 [right column]; CWC Water and Health in the Valley Report, *supra* note 135 at p. 4.

[137] "There are exempted from the taxes imposed by this part, the gross receipts from the sale in this state of, and the storage, use, or other consumption in this state of: . . . Fertilizer to be applied to the land the products of which are to be used for human consumption or are to be sold in the regular course of business." CAL. REV. & TAX. CODE § 6358(d) (West); *see also* Holly E. Canada et al., Technical Report 8: Regulatory and Funding Options for Nitrate Groundwater Contamination (2012) p. 2, available at http://groundwaternitrate.ucdavis.edu/files/139105.pdf (discussing exemption) [hereinafter Technical Report 8].

The Legislature could modify the sales and use tax treatment of fertilizer in two ways to raise revenues. First, it could repeal the fertilizer exemption, in which case additional revenues would go to the state general fund and other dedicated purposes.

Second, the Legislature could leave the exemption in place, but impose a special-purpose sales and use tax on fertilizer pegged to the overall sales and use tax rates. Under California tax law, special sales tax rates have been imposed on certain products.[138] For example, the gasoline sales tax in the state is currently *lower* than the statewide rate of 7.25 percent,[139] to balance out increases in gasoline excise taxes. In the case of a special-purpose tax on nitrogen fertilizer, additional revenues could fund efforts to address groundwater issues in communities affected by nitrate contamination.

Either repealing the fertilizer exemption or imposing a special-purpose sales tax would yield the same reduction in fertilizer use, since they would raise the cost of fertilizer by the same rate.[140] The amount of reduction would depend on the sensitivity of the fertilizer market to price fluctuations. However, a 2012 analysis found that repealing the exemption could potentially reduce nitrogen fertilizer application by 1.6 percent.[141]

Both repealing the fertilizer exemption and imposing a special-purpose sales tax on fertilizer would raise additional revenue that could be used to fund remediation, or other rural water affordability and safety efforts. According to a 2012 technical report by researchers at UC Davis, applying a fee or tax equal to the then-current sales tax of 7.5 percent to fertilizer would raise approximately $28 million annually.[142] According to that same report, the capital expenditures for least cost long-term solutions to nitrate groundwater contamination will cost an estimated $34 million annually.[143] The state sales tax repeal could thus provide significant financial assistance, though other funding mechanisms would be necessary to fully address contamination.

If the Legislature repealed the fertilizer exemption, by contrast, only 3.937 percent of the overall sales and use tax rate of 7.25 percent would be available for remediation or program costs. This is because only 3.9375 percent of the sales tax goes to the state's general fund, and the remainder goes to local governments. Adjusting for this, additional revenue available from repealing the sales tax exemption would equal approximately $14.7 million.[144]

Reductions in fertilizer use and additional revenues raised under either repeal of the exemption or imposition of a special-purpose sales tax depend on whether the additional cost

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[138] Mac Taylor, Cal. Legislative Analyst's Office, *Understanding California's Sales Tax* (2015) p. 16, available at http://www.lao.ca.gov/reports/2015/finance/sales-tax/understanding-sales-tax-050615.pdf [hereinafter Understanding CA Sales Tax].

[139] CAL. REV. & TAX. CODE § 6357.7 (West); *see* Understanding CA Sales Tax, *supra* note 138, at p. 16.

[140] Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129 at p. 65.

[141] Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129 at p. 6. The estimate is based on the then-current statewide sales tax rate of 7.5%, not the current rate of 7.25%. The state sales tax decreased from 7.5% to 7.25% beginning January 1, 2017, with the expiration of a temporary sales under article XIII, section 34(f) of the California Constitution. Cal. State Bd. of Equalization, *Sales and Use Tax Rate Decreases January 1, 2017*, available at http://www.boe.ca.gov/sutax/prop30.htm.

[142] Technical Report 8, *supra* note 137, at p. 7.

[143] Technical Report 7, *supra* note 64, at p. 99.

[144] *See supra* note 141 and accompanying text. This number was reached by multiplying $28 million x 3.9375, divided by 7.5 (the then-current sales tax rate when the Harter UC Davis Report was published). Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129 at p. 65.

may drive farmers to purchase fertilizer outside California to avoid paying taxes. But the cost of personally transporting fertilizer, which is generally purchased in large quantities and delivered by truck directly to the farm,[145] into the state would seem to outweigh any savings from avoiding a sales or use tax. Thus, it seems unlikely that imposition of a sales and use tax on fertilizer would be avoided by farmers purchasing fertilizer out of state.

Enforcement of a sales tax on in-state purchases would not require costly monitoring because institutional procedures and agencies already exist that could administer the tax.[146] Thus the cost of administering a fertilizer sales and use tax is unlikely to affect its support.

2. Excise Tax on Fertilizer Distributors

Another option—which takes care of the out-of-state loophole described above—is an excise tax on all distributors of fertilizer.[147] The state cigarette tax illustrates how an excise tax on fertilizer can be imposed: the cigarette tax is paid by a distributor[148] upon the first distribution[149] of untaxed cigarettes in California.[150] These distributors pay the taxes by purchasing stamps from the Board of Equalization (BOE), which they are required to affix to each package of cigarettes before distribution.[151] Distributors outside of California are still required to pay excise taxes if they are "engaged in business in the state," including maintaining a place of distribution or having an employee delivering the product.[152] Similarly, current California Department of Food and Agriculture (CDFA) regulations require fertilizer manufacturers and distributors to obtain a license for every location that they operate,[153] including distributors that are located outside of the state and are shipping fertilizer into the state.

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[145] *See* Tom Polansek, *Fertilizer Logistics Strained as US farmers Plant at Record Pace*, Reuters (Jun. 13, 2013), available at http://www.reuters.com/article/fertilizer-shortage-corn-idUSL2N0EN0S520130613.

[146] Harter UC Davis Nitrate in Drinking Water Report, *supra* note 129 at p. 65.

[147] There is not a clear distinction between sales and excise taxes under California law. Generally, "sales tax" seems to describe a tax on sales of all goods. For example, California's sales tax applies to a retailer's "gross receipts." CAL. REV. & TAX. CODE § 6051. By contrast, the Ninth Circuit has observed that the term "excise tax" has "traditionally been used in the United States to refer to taxes on the sale of a *specified* commodity measured by value or quantity, such as alcohol, tobacco, or motor fuel." *In re Ilko* (9th Cir. 2011) 651 F.3d 1049, 1055-6 (emphasis added). In California, taxes on goods like alcohol, tobacco, and gasoline are measured on a per-unit basis, but a tax on insurers (*i.e.,* providers of a service) is measured in terms of premiums collected. *See* Cal. Tax Found., *California Tax Facts* (2015) pp. 40–46, available at http://www.caltaxfoundation.org/reports/2015TaxFacts.pdf. For the purposes of this report, we define a sales tax as a tax on the value of a good or service paid, whether applicable to gross receipts (in the case of the general sales tax), or the sales value of a specific good or service (in the case of the special-purpose sales tax) described in the preceding section. We define an excise tax as a tax on the quantity of a specific good. (An excise tax may be imposed at different points in the supply chain, but for our purposes we assume that the costs will be passed onto the farmer directly purchasing the fertilizer.).

[148] "Distributor" includes "every person who sells or accepts orders for cigarettes . . . which are to be transported from a point outside this state to a consumer within this State." CAL. REV. & TAX. CODE § 30011(c).

[149] "Distribution" includes the sale, use or consumption of untaxed cigarettes in California. CAL. REV. & TAX. CODE § 30008. "Use or consumption" is defined as the exercise of any right or power over cigarettes incident to ownership. *Id.* at § 30009.

[150] CAL. REV. & TAX. CODE § 30101.

[151] Cal. State Bd. of Equalization, Cigarette and Tobacco Products (2017), available at https://www.boe.ca.gov/industry/cigarettes_tobacco_products.html#overview.

[152] CAL. REV. & TAX. CODE § 30108.

[153] CAL. FOOD & AGRIC. CODE § 14591(a). The Secretary requires verification that the applicant is a manufacturer or distributor of fertilizing material in compliance with the Code. *Id.* at § 14591(b). The license fee is $300. *Id.* at §

There are a number of advantages to an excise tax over a fertilizer tax. Because a mechanism is already in place that requires licensing, administrative costs for collecting excise taxes may be minimal. Moreover, because an excise tax would apply to all distributers regardless of whether they are located within California, it would likely have a greater effect on fertilizer over-application and raise more funds than imposing a tax only on in-state fertilizer purchases.

3. A Good Political Moment

There is reason to believe that now may be a good moment to pass a direct fertilizer tax or an excise tax on fertilizer distribution. Democrats hold a super-majority of both houses in the state legislature.[154] The agricultural industry, which wields a strong influence over California politics, and which has historically opposed taxation mechanisms such as AB 69,[155] has been involved in more recent negotiations. Some actors involved in the current negotiations believe the industry recognized that it would be better to spread the cost of nitrate contamination than to let costs fall on individual growers through more aggressive use of state regulatory enforcement actions and civil lawsuits alleging contamination.[156]

14591(c). The purpose of the license is to "promote the distribution of effective and safe fertilizing materials" and "provide assurance to consumers that the products they purchase are properly identified, and the quality and quantity represented is valid." Cal. Dep't of Agric., Fertilizing Materials Guide (2016) p. 2, available at https://www.cdfa.ca.gov/is/docs/Fertilizing_Materials_Guide.pdf. This could be a policy intervention point. Additional research into the conditions of obtaining a license may be needed to determine if there are any conditions that could be recommended, even if they are not explicitly taxation-related.

[154] Dan De Jong, *Changes in the California Legislature Create Potential for Significant Tax Changes in 2017*, Bloomberg BNA (Jan. 23, 2017), available at https://www.bna.com/changes-california-legislature-n73014450104/. It is important to note that many of the democrats are "mod Dems" who represent agricultural districts, and will be skeptical of this proposal.

[155] California Assembly Bill 69, Cal. Leg. 2013-2014 Session, available at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201320140AB69.

APPENDIX VII: BACKGROUND INFORMATION ON MULTIFAMILY RENTERS

Below we provide some background detail and regulatory information to support our analysis on multi-family rental units. First, we provide more information on tenant-paid water charges. Second, we compare a sample of urban water rates across California, noting a wide variation in the rates and in the flat fees. Third, we provide more detail on Utility Allowances. Lastly, we provide more information on non-profit deed restricted properties, Section 8, and Below Market Rate housing.

A. EXPLANATION OF TENANT-PAID WATER CHARGES

With the exception of rent-controlled jurisdictions, California law does not regulate how landlords can pass on master metered water costs.[157] Landlords typically pass on these costs in two main ways: in-rent capitalization or an additional water charge.

1. The Cost of Water is Capitalized in Rent

Sometimes referred to as "in-rent," water cost capitalization occurs in the same way a landlord capitalizes property taxes, repairs and other administrative costs into the rental rate. Units where rent is inclusive of water might have higher rents than units where water is passed on through a charge.

For low-income families, paying rent that is inclusive of water costs is preferable to paying a variable water charge. Households with limited economic resources need consistent and predictable bills each month. If a landlord wants to increase rent because the water rates have gone up, the landlord must give 30-60 days notice of a rent increase.[158] This can provide a longer notice period than variable month-to-month water charges, discussed below.

2. Water Charges

The water charge is another method of billing tenants in master-metered buildings. Sometimes the water charge is a flat fee or a division of the total building water bill by the number of units. Not surprisingly, this can lead to unfair and unaffordable outcomes for small households with low water usage or in buildings that have common area water fixtures or significant common landscaping.

a. Ratio Utility Billing Systems

Ratio Utility Billing Systems (RUBS) are a more sophisticated way of allocating a water charge, although this method can still result in unjust and unaffordable water bills for low-income households. RUBS use an allocation-based formula to bill residents for their estimated

[157] Department of Consumer Affairs, California Tenants: A Guide to Residential Tenants' and Landlord's Rights and Responsibilities 17 (July 2012), available at https://www.dca.ca.gov/dca/publications/landlordbook/catenant.pdf.
[158] Rent increases of less than 10 percent require 30 day notice. See CAL. CIV. CODE § 827(b)(1)(B)(2). Increases greater than 10 percent require 60 days notice. See CAL. CIV. CODE § 827(b)(1)(B)(3).

water consumption. The allocation formula can take into account dwelling unit square footage, number of bedrooms, number of occupants, number of bathrooms, or number of fixtures.

Because RUBS bills are based on the entire building's water consumption, the monthly bills can vary. One family could use minimal water, but if the consumption from another unit increases, the family that conserves will still pay more because the RUBS formula will pro-rate that increased consumption across all the units. For example, a four-person family in a two bedroom unit will pay more if their neighbor increases their water consumption even if that four person family has conserved water. For these reasons, the National Consumer Law Center calls RUBS "terribly arbitrary."[159] This variability can also pose problems for low-income families who receive an unusually high water bill without any notice.

Administrative charges are another concern. Many third party companies advertise proprietary RUBS formulas to landlords and conduct the bill-back themselves.[160]Administrative or billing charges are designed to reflect the cost of paying the third party to bill the renter, but some landlords may take advantage of such charges to increase profit. Some states have outright banned RUBS because of these administrative charges and the potential for landlords to make an illegal profit off them.[161] Texas and Seattle both regulate RUBS and give tenants access to remedies to dispute bills.[162] In 2008, the California Senate considered a bill that would require RUBS for master metered dwellings. The Western Center on Law and Poverty opposed this bill, characterizing "rough allocation . . . commonly known as 'RUBS'. . . [as] the least fair system. . . [for the] poorest tenants." The Western Center also had concerns about "charging tenants a monthly fee for billing allocations of the building's collective water bill. . . [a] task [that] does not justify the high monthly charges that have been reported by some tenants."[163] The bill was ultimately scrapped. But subsequent attempts to ban RUBS in California have failed amid strong opposition from the California Apartment Association.[164]

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[159] *See* Olivia Wein and Charlie Herak, Soaking Tenants: Billing Tenants Directly For Water and Sewer Services, 3 National Consumer Law Center Energy & Utility Update Fall 2003, available at https://www.nclc.org/images/pdf/energy_utility_telecom/water/report.pdf.

[160] *See e.g.*, Multifamily Utility Company, Inc., available at http://www.multifamilyutility.com/rubs.html ("While RUBS billing does not measure a tenant's exact usage, the common unit or units of measure that are used to allocate utility expense are based upon industry-wide statistics."); American Conservation & Billing Solutions, available at http://www.amcobi.com/index.php/utility-billing-services/ratio-utility-billing-services-rubs ("[RUBS is a] fast way to boost net operating income").

[161] *See. e.g.,* 4 N.C. ADMIN CODE § 11.R18-6 (2003)("metered consumption of water shall. . .not [be determined by] any partial measurement of water consumption. . .").

[162] *See* SEATTLE MUNICIPAL CODE § 7.25.010 (requiring tenant disclosures of calculation methodology and caps on fees); TEX. WATER CODE §§ 13.501—13.506 (requiring tenant disclosures, prohibiting additional billing fees, and capping late fees for allocation billing methods).

[163] California Senate Committee on Natural Resources and Water 2007-2008 Regular Session, B 1518 Correa (April 8, 2008), available at ftp://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_1501-1550/sb_1518_cfa_20080408_090117_sen_comm.html

[164] California Apartment Association, Sub-meter bill hits snag; CAA remains opposed (Aug. 16, 2013), available at https://caanet.org/sub-meter-bill-hits-snag-caa-remains-opposed/.

b. Submetering

A renter might also pay a water charge if their landlord has installed a submeter for their unit. Submeters fully capture water consumption that occurs downstream from a master meter.[165]

Submeters can track single point entry, dual point of entry, or point-of-use depending on the building design.[166] Single point of entry submetering is possible where all the water enters a multifamily dwelling unit through a single pipe. This is the simplest type of submetering. Where water enters the dwelling unit through dual points of entry or two pipes—sometimes referred to as a hot water run and cold-water run—two submeters must be installed. If installing single or dual point of entry meters is impossible, usually in older or high rise buildings, an owner must install a submeter at each point of use. For example, an owner would need to install a meter on each water supply line that feeds a fixture like a sink or dishwasher. This approach typically requires 5-20 submeters that are read via radio telemetry that reports back to a central computer system.

Generally, as buildings get taller, submetering becomes more difficult. The plumbing in mid and high-rise housing is organized around risers—water pipes that feed certain areas within a unit stack. For example, a building could have one riser that delivers water to the bathrooms on six floors and another riser that delivers water to the kitchens. Though this design reduces the cost of copper piping, it creates multiple points of water entry per unit, which complicates a submeter retrofit. Installing submeters, if even feasible, could require tearing out walls or redesigning the plumbing system altogether.

Studies have shown that residents who pay for water through submetering conserve 15.3 percent more water compared to in-rent properties, although hybrid and RUBS systems have not led to comparable savings.[167] The success of submetering led to the passage of SB-7, which directs the California Department of Housing and Community Development (HCD) to develop standards that require the installation of water meters or submeters in newly constructed multiunit residential structures.[168] (SB-7 does not require submetering for existing multifamily developments, although San Diego has implemented an ordinance that does require submeter retrofits[169]). SB-7 standards should go into effect during the next triennial building code cycle adoption on January 1, 2018.[170]

HCD must also determine when the installation of water meters or submeters is infeasible and include an exemption from this requirement.[171] The department may consider whether there are any issues specific to high-rise structures that would require an exemption from the

[165] Peter W. Mayer, et al., National Multiple Family Submetering and Allocation Billing Program Study 6 (2004), available at http://www.allianceforwaterefficiency.org/WorkArea/DownloadAsset.aspx?id=704 [hereinafter Mayer Multifamily Submetering Study].
[166] *Id*.
[167] *Id*. at 128.
[168] CAL. HEALTH & SAFETY CODE § 17922.14(a)(1). The bill was drafted poorly. Given that the goal is individual measurement of water, "water meters" likely refers to an individual meter per unit, although it could be read to just require metering generally.
[169] SAN DIEGO MUNICIPAL CODE § 67.0603.
[170] CAL. HEALTH & SAFETY CODE § 17922.14(a)(1).
[171] CAL. HEALTH & SAFETY CODE § 17922.14(c)(1).

requirement for the installation of submeters.[172] SB-7 exempts deed-restricted affordable housing from this submetering requirement.[173]

SB-7 also contains some protections that apply to all renters with submeters. It requires landlords that bill tenants for water through submeters to disclose that fact at the execution of the lease. The landlord must also provide the tenant with an estimate of the water bill for the unit,[174] as well as information on how to access and read the submeter if the tenant so wishes.[175] SB-7 also requires the landlord to fix leaky pipes and fixtures or re-calibrate malfunctioning submeters within 21 days.[176] If the landlord fails to repair the leaks or the submeter, the tenant owes the lesser of $15 or actual usage.[177] If the condition remains after 180 days, the tenant can stop paying the water bill.[178] SB-7 also puts an affirmative burden on the landlord to investigate potential leaks if the local water purveyor notifies them of unusually high water usage,[179] and it only permits the landlord to bill for volumetric water usage while capping the monthly submeter administrative fee at $4.75.[180]

Interestingly, SB-7 does not extend these disclosure requirements or administrative fee caps to renters who pay water through RUBS.[181] Presumably, the protections for tenants against unabated leaks would apply to renters with RUBS, but it is unclear whether a renter would even notice a leak given that monthly RUBS billings are not based on unit consumption.

Encouraging water conservation by making renters financially responsible for their usage is a laudable goal,[182] but not one that RUBS or water-capitalization are likely to achieve. For one, removing water costs from the landlord's bottom line eliminates landlord incentivizes to repair leaky pipes and replace outdated fixtures since they are not responsible for the bill. And while submetering can lead to more conservation, retrofitting multifamily housing for submeters is extremely expensive, which can have a concomitant impact on rent levels, pushing low-income tenants into lower quality housing or out of certain higher-cost jurisdictions. Moreover, like RUBS, monthly submeter bills often come with burdensome administrative charges.

Ideally, SB-7 will help renters to hold their landlords accountable for failing to fix leaks and fixtures. These types of protections minimize renter's water bills and should be available to renters writ large as part of AB 401 implementation.

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[172] CAL. HEALTH & SAFETY CODE § 17922.14(c)(1).
[173] CAL. HEALTH & SAFETY CODE § 17922.14(c)(2)(B).
[174] CAL. CIV. CODE § 1954.204(a)-(b).
[175] CAL. CIV. CODE § 1954.204(h).
[176] CAL. CIV. CODE §§ 1954.204(f); 1954.210.
[177] CAL. CIV. CODE § 1954.210(c).
[178] CAL. CIV. CODE § 1954.210(d).
[179] CAL. CIV. CODE § 1954.210(f).
[180] CAL. CIV. CODE § 1954.205(a)(3).
[181] CAL. CIV. CODE § 1954.216(c)(nothing "Nothing in this chapter shall be construed to apply or create a public policy or requirement that favors or disfavors the use of a ratio utility billing system."
[182] Mayer Multifamily Submetering Study, *supra* note 165 at 128 (noting that water charges have become more common due to increasing water rates and the desire to motivate tenants to conserve, repair leaks, or replace inefficient fixtures).

B. Comparison of Water Costs Across California Based on Published Rates

This section prices the costs of 55 gallons of water in largely urban areas per person per day as the Basic Water Requirement (BWR).[183]

The cost of 55 gallons per person per day varies significantly across the state. Water costs in jurisdictions that use a tiered rate system differ drastically from a flat billing structure. However, even across tiered rate systems, commodity costs vary. For example, East Bay Municipal Utility District (EBMUD) tiers are based on consumption per day versus total monthly consumption. This daily tiered rate system advantages larger families with higher basic water needs because it resets each day. Almost 80 percent of a family of four's BWR falls within EBMUD's base tier. In San Francisco, by contrast, less than 50 percent of a family of four's BWR falls within the base tier.

[183] This section uses 55 gallons per person per day to align with the UCLA program modeling estimates given at the SWRCB workshop on Affordable & Safe Drinking Water on February 8, 2016.

Commodity Rates
(per HCF, unless otherwise noted)

East Bay Municipal Utilities District (EBMUD)		
0-172 gpd	172-393 gpd	>393 gpd
3.16	4.34	5.74

Irvine Ranch		
40% of water budget	60% of water budget	
1.21	1.65	

Sacramento		
Each HCF		
1.059		

Santa Barbara		
up to 4 HCF	Next 12 HCF	Above
4.56	12.97	24.27

Escondido (rate is per 1,000 gallons)		
0-7k gallons	7-15k gallons	>15k gallons
5.33	6.88	8.75

Arcadia		
0-22 HCF	23-28	29-34
1.54	1.88	2.13

Claremont		
0-13 HCF	13-21 HCF	> 21 HCF
3.214	3.698	4.252

Los Angeles Dept. of Water and Power (LADWP)			
0-16 HCF	17-30 HCF	31-58 HCF	> 58 HCF
4.81	6.53	4.38	4.38

San Francisco Public Utilities Commission		
0-4 CCF	>4 CCF	
4.86	6.52	

Fresno
Each HCF
1.28

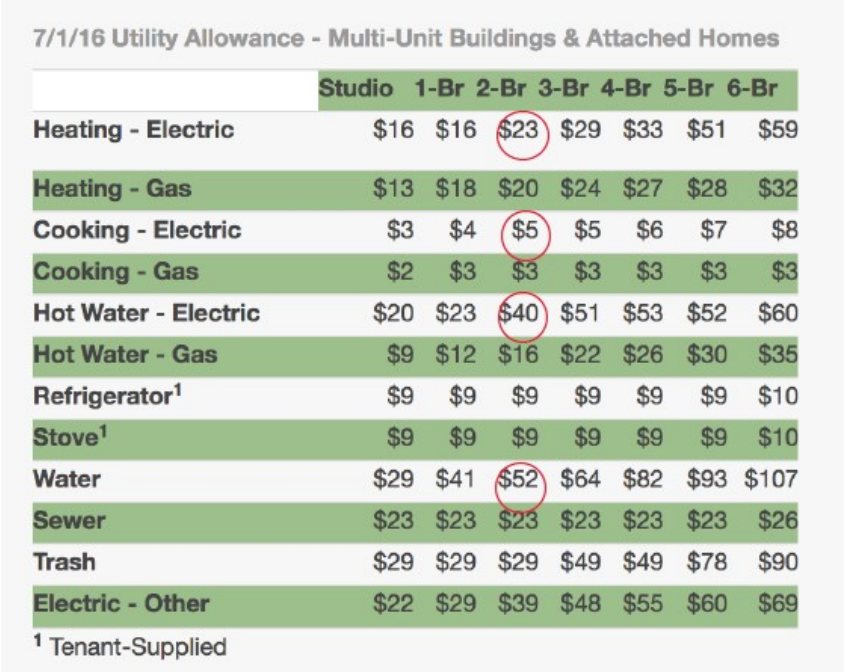
Service charges are another determinant of water cost. In the ten sample water districts, the service charge for a 5/8 inch residential meter ranges from ten to thirty-five dollars per month. In all but one jurisdiction, the service cost represents at least 50 percent of the monthly BWR cost for an individual. The service cost ranged between 25 and 75 percent of the BWR for a family of four. The high fixed costs of water service suggest that an effective low-income water rate assistance program should subsidize both service and commodity costs.

		ONE PERSON			FOUR PEOPLE		
Water System	**Service Charge (5/8 meter)**	**Commodity Charge**	**Total**	**Service Charge Allocation**	**Commodity Charge**	**Total**	**Service Charge Allocation**
EBMUD	20.69	6.97	27.66	75%	30.15	50.84	41%
Irvine Ranch Water System	10.30	3.25	13.55	76%	12.65	22.95	45%
Sacramento	26.84	2.42	29.26	92%	9.67	36.51	74%
Santa Barbara	24.5	9.26	33.76	73%	79.36	103.86	24%
Escondido	35.44	8.79	44.23	80%	35.178	70.62	50%
Arcadia	20.34	3.40	23.74	86%	13.59	33.93	60%
Claremont (Golden State Water)	16.15	7.09	23.24	69%	28.36	44.51	36%
LADWP		10.61	10.61	0%	42.44	42.44	0%
SFPUC	10.86	10.72	21.58	50%	50.89	61.75	18%
Fresno	10.50	2.82	13.32	79%	11.29	21.79	48%

C. UTILITY ALLOWANCE

The Utility Allowance (UA) mechanism reflects federal housing policy that tenants should pay no more than 30 percent of their income towards housing costs, including utility costs.[184] A utility allowance is a schedule of utility rates that the landlord must offset against the total rent payment.[185] County Public Housing Authorities (PHA) calculate the Utility Allowance rates and publish annual rate schedules for each type of tenant-paid utility, including water, electricity, garbage, gas, etc. Because the county sets the UA level, allowance rates vary significantly across California.

Each PHA issues a UA schedule for all the housing stock types in its jurisdiction, typically differentiated according to single-family detached and multi-family apartments. The UA also breaks out utility rates for a range of unit sizes. For example, assume a family living in a master metered 2 BR apartment in Alameda does not pay a water bill. The family's UA would only include the utility bills that they pay. Assuming that the electric bill covers heat, cooking, and water heating, the family would offset $68 from their rent payment of $1,097.



7/1/16 Utility Allowance - Multi-Unit Buildings & Attached Homes

	Studio	1-Br	2-Br	3-Br	4-Br	5-Br	6-Br
Heating - Electric	$16	$16	$23	$29	$33	$51	$59
Heating - Gas	$13	$18	$20	$24	$27	$28	$32
Cooking - Electric	$3	$4	$5	$5	$6	$7	$8
Cooking - Gas	$2	$3	$3	$3	$3	$3	$3
Hot Water - Electric	$20	$23	$40	$51	$53	$52	$60
Hot Water - Gas	$9	$12	$16	$22	$26	$30	$35
Refrigerator[1]	$9	$9	$9	$9	$9	$9	$10
Stove[1]	$9	$9	$9	$9	$9	$9	$10
Water	$29	$41	$52	$64	$82	$93	$107
Sewer	$23	$23	$23	$23	$23	$23	$26
Trash	$29	$29	$29	$49	$49	$78	$90
Electric - Other	$22	$29	$39	$48	$55	$60	$69

[1] Tenant-Supplied

Source: Housing Authority of the County of Alameda *http://www.haca.net/index.php/applicants/other-housing-resources*

[184] Though UA reflects federal 30 percent income towards housing costs policy, LIHTC rents can sometimes be up to 50 percent of household income even with UA deductions.

[185] *See* Department of Housing and Urban Development, Utility Allowances, available at https://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/phecc/allowances.

If the unit was sub-metered and the tenant reimbursed the landlord for water, the cost is treated as being paid by the resident and is also off-set.[186] In this scenario, the household would deduct $120 from their monthly rent payment of $1,097.

The choice of whether to charge a tenant for a utility and incur a UA offset is critical to the development's bottom line. If the building is newer and more energy or water efficient but the majority of the housing stock in the jurisdiction is older and less efficient, the developer could lose more in rental income from the UA offset than the tenant actually pays on their utility bill. This is because PHAs typically base the UA on utility averages from existing housing stock in a jurisdiction, which might not be as efficient. For this reason, submetering is usually not an efficient use of scarce development funds. Furthermore, keeping the non-profit owner responsible for the master meter bill incentivizes them to upgrade fixtures and repair leaky pipes.

D. NON-PROFIT DEED RESTRICTED AFFORDABLE HOUSING

Deed-restricted affordable housing is an important source of multifamily housing in California. The California Housing Partnership Corporation (CHPC) estimates that deed-restricted multifamily affordable units comprise about 11 percent of the total multifamily housing stock.[187] Affordable housing refers to housing affordable to people at various percentages of area median income (AMI) as defined by the Department of Housing and Urban Development (HUD) or other regulatory agencies. These affordability restrictions are enforced through deed restrictions and regulatory agreements with local, state, or federal entities.

In Alameda County, for example, a household at 50 percent AMI would pay $1,097 per month to rent a 2 BR apartment in a deed-restricted building. These maximum rents means that the developer cannot raise rents to offset the cost of water.

County	Efficiency	1 BR	2 BR	3 BR	4 BR	5 BR
ALAMEDA						
100% Income Level	$1,706	$1,828	$2,194	$2,534	$2,826	$3,120
60% Income Level	$1,024	$1,097	$1,317	$1,521	$1,696	$1,872
55% Income Level	$939	$1,005	$1,207	$1,394	$1,555	$1,716
50% Income Level	$853	$914	$1,097	$1,267	$1,413	$1,560
45% Income Level	$768	$822	$987	$1,140	$1,272	$1,404
40% Income Level	$683	$731	$878	$1,014	$1,131	$1,248
35% Income Level	$597	$640	$768	$887	$989	$1,092
30% Income Level	$512	$548	$658	$760	$848	$936

Source: California Tax Credit Allocation Committee
http://www.treasurer.ca.gov/ctcac/2016/supplemental.asp

[186] *See* 26 C.F.R. §§ 1.42-10(a); 1.42-10(e)(1).
[187] California Department of Housing and Community Development, California's Housing Future: Challenges and Opportunities 29 Draft January 2017, available at http://www.hcd.ca.gov/policy-research/plans-reports/docs/California's-Housing-Future-Full-Public-Draft.pdf.

E. SECTION 8 AND BELOW MARKET RATE (BMR) PROGRAMS

Housing choice vouchers—often referred to as "Section 8"—are the federal government's major program for assisting very low-income families, elderly persons, and persons with disabilities to afford housing in the private market.[188] Local Public Housing Authorities (PHAs) distribute Section 8 vouchers to qualifying households. The PHA determines the "fair market rent" for various types of housing stock in the area. Tenants must pay 30 percent of their income towards rent, and the PHA covers the difference between the fair market rent and the tenant contribution.

In high cost jurisdictions, the fair market rent is often less than the going rental rate demanded by the landlord. In these situations, the voucher holder must pay the difference between the going rental rate and the fair market rent in addition to the 30 percent of their income contribution. The voucher holder must also pay any utility bills that the landlord passes on to the tenant. Unlike affordable housing operators, the landlord can pass on master metered water costs using RUBS or other water charges. The voucher holder receives a Utility Allowance (UA) offset for any of these bills passed on to the tenant, including water.

Below Market Rate (BMR) or inclusionary housing is becoming increasingly common in California. BMR units refer to deed-restricted affordable housing that a market-rate developer must construct as a condition of approval—a local exaction. BMR units can be included in the market-rate housing or built off-site. These programs vary significantly according to locality, and many jurisdictions in California do not have such an ordinance.[189]

Unlike the Section 8 program, rents are not subsidized by the federal government. Instead, the local jurisdiction sets the applicable rent limits, usually far below market value. While the landlord cannot capitalize water costs into that rental amount, they can pass on the costs of water to the tenant through water charges like RUBS and submetering. For-profit developers typically own BMR units. Though the deed restrictions on the units typically run for 55 years, given that the owner is a for-profit corporation, they will likely flip the unit to market-rate once the restrictions run out.

Like Section 8 landlords, landlords of BMR units must also off-set rent by the applicable Utility Allowance for each tenant-paid utility.[190] Because these units are built with private development funds, the prohibition on charging tenants for non-metered utilities does not apply. Thus, a landlord could pass on water costs using RUBS as long as the tenant receives a UA. Because many County Housing Authorities are lax in updating UA rates to reflect current costs,

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[188] U.S. Department of Housing and Urban Development, Housing Choice Vouchers Fact Sheet, available at https://portal.hud.gov/hudportal/HUD?src=/topics/housing_choice_voucher_program_section_8; *see also* 24 CFR Part 982.

[189] This reluctance derives in part from unsettled doubts left by *Palmer/Sixth Street Properties L.P. v. City of Los Angeles*, 175 Cal. App. 4th 1396 (Ct. App. 2009), which declared inclusionary rental requirements a form of vacancy control in violation of the Costa Hawkins Act.

[190] *See e.g.,* City and County of San Francisco Inclusionary Affordable Housing Program Monitors and Procedures Manual at 49, available at http://sfmohcd.org/sites/default/files/FileCenter/Documents/6983-Inclusionary%20Procedures%20Manual%20051013.pdf; City of Pasadena Inclusionary Housing Regulations at 12, available at http://www.tbrpc.org/resource_center/pdfs/housing/Inclusionary_Zoning_Reg.pdf; City of Berkeley Program Guidelines and Operational Manual: Inclusionary and Below Market Rate Housing Program at 19, available at http://www.ci.berkeley.ca.us/uploadedFiles/Housing/Level_3_-_General/BMR%20RENTAL%20PROGRAM%20GUIDELINES_Date-November%202016%20clean.pdf.

the RUBS billing can often exceed the UA rent deduction, which increases the landlord's operating income. Landlords of BMR units cannot however capitalize the cost of water in-rent, because rental rates are capped by local jurisdiction.