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# The Struggle for Water Justice in California's San Joaquin Valley: A Focus on Disadvantaged Unincorporated Communities

## Executive Summary


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## A. Introduction

In California, lack of access to clean, safe, and affordable water is a threat to public health and well-being, and violates the state's newly codified Human Right to Water. In low-income communities located outside city boundaries (known as disadvantaged unincorporated communities or DUCs), drinking water is often unsafe to drink. In many such localities, drinking water is contaminated by industrial by-products (usually associated with agriculture, oil and gas production, transportation, and manufacturing) and compromised by inadequate wastewater treatment and disposal systems, as well as naturally occurring toxic substances like arsenic and uranium. Many DUC residents in the San Joaquin Valley (SJV) pay a triple penalty to obtain safe water: they bear the health costs of unsafe drinking water; they purchase that unsafe water at high costs; and they must also purchase "substitute" water—typically expensive bottled water—for drinking and cooking.

Lack of access to clean, safe and affordable drinking water has a racial and ethnic component: the vast majority of DUC residents are people of color who also face cumulative impacts from environmental contamination brought on by proximity to air pollution, pesticides, toxic facilities and waste disposal. Without city governments to directly represent their interests and provide essential services, residents of DUCs have been systematically deprived of access to important means of democratic governance.

The disparities that affect residents of DUCs in the SJV are deeply rooted in the political, economic, and social dynamics of the region's history. These include: the decimation of Native peoples under the dominion of Spain, Mexico and the United States; the consolidation of land by agricultural, industrial and railroad corporations; and an agricultural model based on low-wage labor and intensive irrigation systems. Migration has also shaped the region. Generations of immigrants from Mexico, the Philippines, India, and Pakistan, along with African Americans from the South, and low-income white people from small towns and rural areas came to the SJV fleeing systems of racial, ethnic and class segregation. Many of the neighborhoods these people settled in were located on the fringes of urban centers, outside municipal boundaries. Most were cut off from municipal services, and remained so even as these cities expanded. Few of these communities had the economic resources or political clout to form municipal governments; in many cases, they did not meet the legal criteria for incorporation. Meanwhile, many cities engaged in 'leap frog' annexation and development policies that purposefully excluded DUCs inhabited by lower-income people and people of color, depriving these communities of municipal services.

Today, there are there are nearly 350,000 people (approximately 1 in 9 of the region's total population) living in 450 DUCs throughout the SJV. Yet DUC populations are and remain at great risk of exposure to unsafe drinking water. As our study shows, this is true even for the significant number of DUC residents who live close to an existing and water-quality-compliant Community Water System (CWS) that could provide clean drinking water.

This report analyzes this situation in detail, and offers several recommendations to inform policy and advocacy on how to improve water access to these communities. To do so, we have used maps of DUCs, CWSs, and State Small Water Systems (SSWSs), as well as water quality reports, demographic data, and expert interviews. Together, these sources have helped us to highlight gaps in the provision of safe and affordable drinking water. Our main conclusion is that California's legislature, regulatory agencies, and water suppliers need to undertake more concerted and well-resourced efforts to ensure that the Human Right to Water is ensured for all of California's residents.

## B. Key Findings

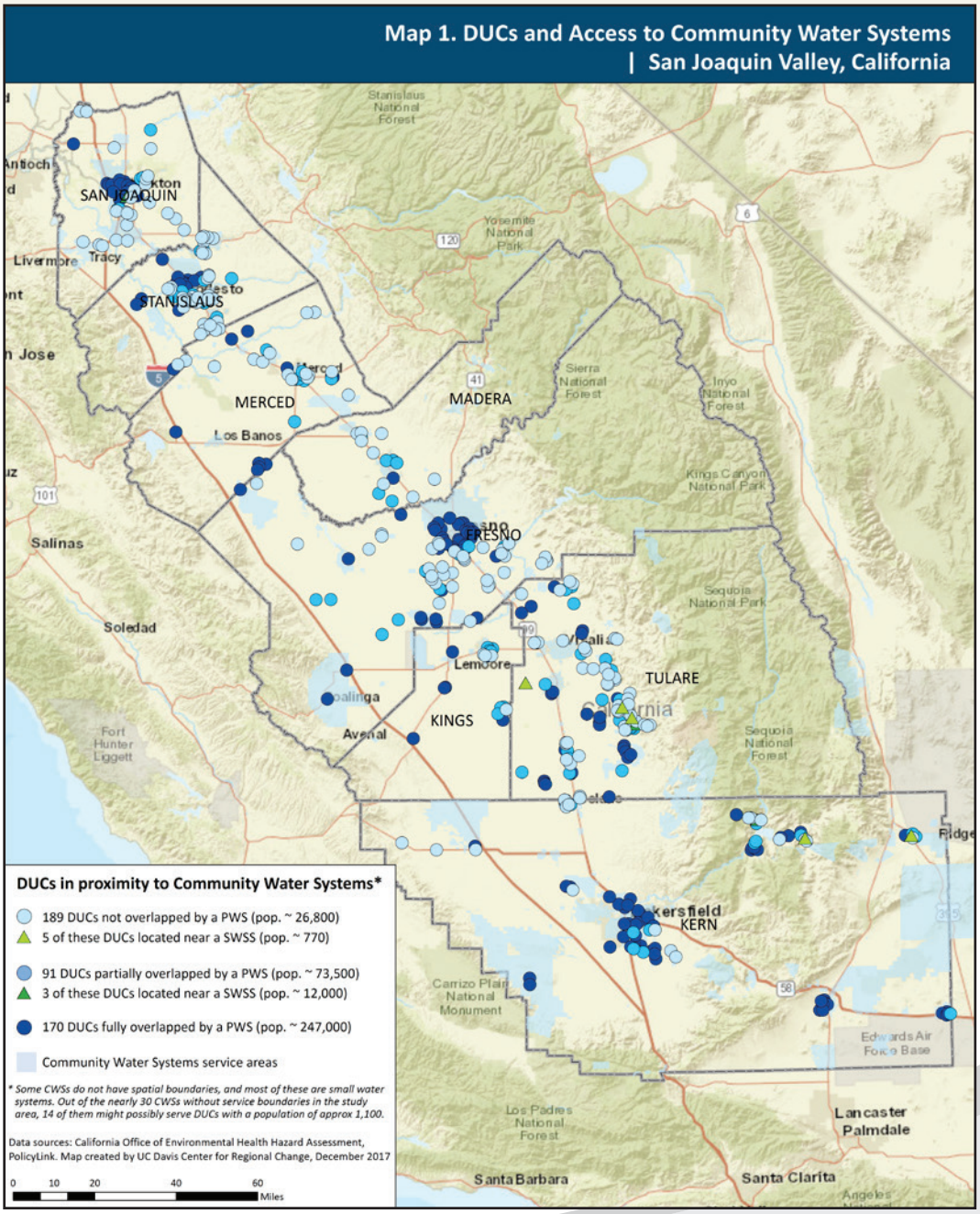
### 1. DUC drinking water systems are mostly small and fragmented.

DUC residents are served by a fragmented patchwork of small and often underperforming water systems, resulting in uneven and inequitable access to safe drinking water. Most CWSs serving DUCs are small (57%). Regardless of their size, they are nearly evenly split between private and public ownership. Most of the small systems are privately owned (67%), while most of the systems in the remaining size categories are publicly owned (87%). This patchwork of varying sizes and types of water systems requires a range of solutions to fit the diverse circumstances of DUCs.

Map 1 shows that the vast majority of the region's total population (71%) of over 347,000 DUC residents live in DUCs that are fully within a CWS service area. Another 21% of residents live in 91 DUCs that are partially intersected by a CWS. Nearly 13,000 DUC residents live near a SWSS, but data is insufficient to determine whom these SWSSs serve. A total of 8% of residents live in 189 DUCs that are not overlapped by either a CWS or SSWS service area. Most of these residents rely on private domestic wells, and are likely to be drinking untreated and unregulated water.

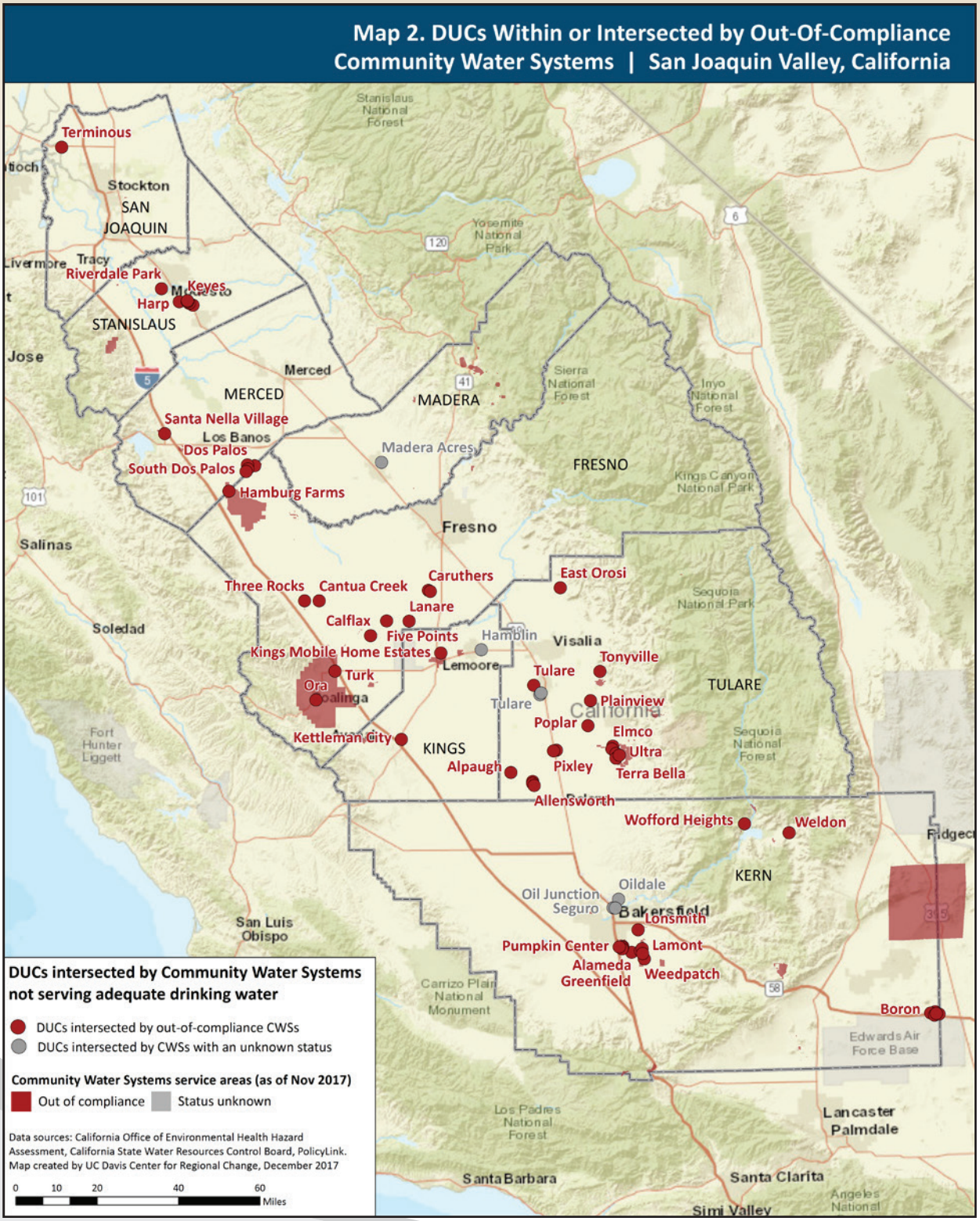
## 2. Many DUC residents have unsafe drinking water.

There are significant problems in the quality of water served to DUC residents. Of the 155 CWSs that fully or partially intersect DUCs, only 62% are providing safe water (defined as water that complies with the Safe Drinking Water Act or SDWA), 10% have returned to compliance, and 24% are out of compliance with the SDWA. Map 2 highlights the 57 DUCs that are intersected by out-of-compliance CWSs, as well as the 7 DUCs intersected by CWSs with unknown compliance status. This shows that nearly 64,000 people (18% of DUC residents) in 64 DUCs spread across all eight of the SJV counties may be exposed to unsafe drinking water. This is in addition to the number of residents noted in the section above who are not served by a CWS or SSWS.



### 3. There are racial and ethnic disparities in access to safe drinking water.

Race and ethnicity are important indicators for understanding who has access to safe drinking water, and who lives in areas served by safe drinking water systems. For example, nearly two thirds (63.6%) of residents living in DUCs that are not intersected by a CWS are Hispanic. The percentage is much lower for Caucasians (30.3%). Hispanics make up a much larger proportion (63%) of the population of DUCs served by out-of-compliance CWSs than Caucasians do (32.2%). Overall, Hispanics account for 57% of all the residents in the SJV served by out-of-compliance CWSs, while Caucasians account for only 35.8% of this group.



## 4. Safe drinking water is often close at hand.

Map 3 shows the proximity of DUCs to sources of safe drinking water. The map locates the 321 DUCs (inhabited by nearly 150,000 residents) that are not fully intersected by CWSs or are intersected by CWSs that are not currently providing safe drinking water. Of the residents of these DUCs, 44% live within 500 feet of a publicly-owned CWS boundary, while another 22% live within one mile of a safe drinking water supply. In other words, 66% of DUC residents live in extremely close proximity to a CWS that does or could provide water, given the proper investments in infrastructure. Of the remaining 33% of DUC residents, 2% live between 1 and 3 miles, and 33% live 3 or more miles, outside boundary or service areas.

To explore the feasibility of connecting DUCs to the nearest safe drinking water systems, we developed a "least cost path analysis" that illustrates the shortest distance by road (path), thus indicating the least cost alignment from a DUC to the nearest safe drinking water supply. This analysis includes all 450 DUCs in the SJV, aggregated by community name into 220 DUC clusters.

**Map 3. Proximity of DUCs to In-Compliance Public Systems | San Joaquin Valley, California**

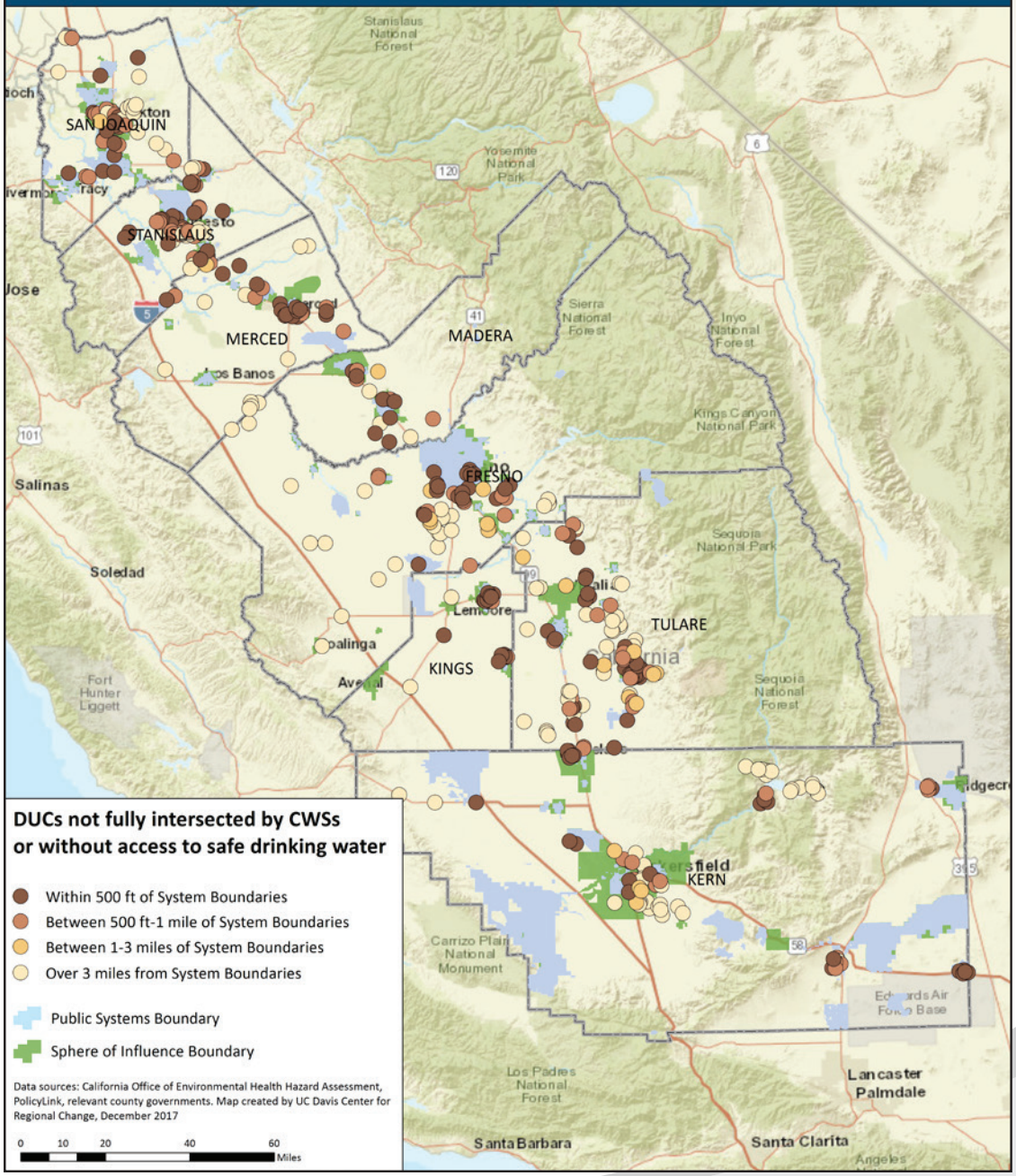


**Table 1. Distance to Closest In-Compliance PWS within 10-mile radius of DUCs**

| Distance to closest Public Water System | Number of DUCs | Percentage of DUCs |
|---|---|---|
| Less than 500 feet | 148 | 67% |
| 500 feet to 1 mile | 19 | 9% |
| 1 to 3 miles | 25 | 11% |
| More than 3 Miles | 24 | 11% |
| No safe water supplier within 10-mile radius | 6 | 3% |
| Total | 222 | 100% |

Most voluntary water system consolidations occur between systems that are within 3 miles of a safe drinking water supply. This suggests that the vast majority (86%) of DUCs are candidates for consolidation, and thus are within reach of safe drinking water, based on the distances reported in the table above.

## C. Problems and Recommendations

Residents of DUCs in the SJV face problems in securing access to safe drinking water. However, we believe that solutions to these problems are within reach.

**Problem 1: Tens of thousands of Californians lack access to safe drinking water despite their proximity to drinking water systems that can provide a sustainable source of safe drinking water.**

**Recommendation 1: Develop and strengthen consolidation and extension mandates and incentives.**

As shown in the study's proximity analysis and least cost path analysis, the potential for the vast majority of DUCs to physically connect or consolidate with cities and larger safe drinking water supplies is much greater than previously thought. The authority granted to the State Water Resources Control Board to compel consolidations and extensions should be expanded. For example, state law should clarify that the board may use its authority to extend services to DUC residents who receive residential water from SSWSs and private wells. Another potential mechanism for expanding the reach and effectiveness of the law would be to allow communities without safe drinking water to petition the state to consider ordering consolidations.

Additionally, state and local policies should create incentive structures that encourage cities, as well as larger water and wastewater systems, to provide service to proximate DUCs that have unsafe water or inadequate wastewater service. For example, in jurisdictions where households lack safe and reliable water service, local or state policies could require that services be provided to communities that lack safe drinking water before service extensions for new developments are approved.

For DUCs that are not proximate to safe drinking water supplies, the board should consider other non-physical-plant forms of consolidation (e.g., joint system administration or maintenance) that may allow strategies to achieve safe drinking water systems by achieving economies of scale.

**Problem 2: Public policies for funding safe drinking water in the SJV's DUCs are not coordinated, and do not address the small and historically under-resourced water systems that prevent access to safe drinking water.**

**Recommendation 2a: Create larger, more stable, more equitably distributed, and coordinated sources of funding that focus on addressing historic patterns of inequitable access to resources.**

It will take a significant shift in the allocation of financial resources to address the implications of decades of non-investment and under-investment in water infrastructures. Such a shift will be necessary to benefit residents who do not have access to safe drinking water.

One way forward is to create a portfolio of ongoing funding sources that can provide a stable revenue stream to develop and maintain sustainable and affordable solutions that address DUCs' unmet needs (e.g., support for technical assistance, planning, capital, treatment, operations and maintenance costs). Current legislation proposes a statewide Safe and Affordable Drinking Water Fund for this purpose. Without new, diverse and reliable funding sources to develop, implement, and support sustainable and affordable solutions, including consolidations and service extensions, it is not possible to reach the scale necessary to redress widespread existing disparities in drinking water access. Sustained investment in DUCs is needed to offset decades of exclusion, non-investment and neglect, and to remedy racially and economically discriminatory impacts.

**Recommendation 2b: Ensure that local governments comply with land use and annexation laws to address the legacies of discriminatory local planning practices.**

Senate Bill 244 (government code sections 56430, 56425, 65302.10) is a critical tool for this purpose. The state legislature must enforce SB 244's requirement that cities and counties assess the infrastructure needs of DUCs in city general plans, and that Local Agency Formation Commissions (LAFCOs) identify and characterize the location and characteristics of any DUCs within or contiguous to a sphere of influence. LAFCOs must also condition certain annexations to prevent development patterns that exclude DUCs. Additionally, state leaders and community advocates could consider whether land use decisions that produce a negative and disparate impact on access to services for communities of color are in keeping with state and federal fair housing and civil rights laws, applying these laws, or litigating on their behalf, as appropriate.

**Problem 3: The lack of public access to data and the limited coordination of state data tools obscure the historic and systemic factors that drive racial and ethnic inequality in access to safe drinking water.**

**Recommendation 3a: Improve public access to data and planning tools, enhance existing data systems, coordinate research efforts.**

State agencies must improve public access to data and planning tools. This will inform strategies and help craft policies to improve conditions in DUCs throughout the state. State agencies must also consolidate and align their data systems. For example, a dataset that merges the SWRCB's drinking water source data with the Department of Water Resources' multiple datasets, as well as the Department of Public Health's Environmental Health Tracking Program's water system boundary tool, would provide more accurate, comprehensive, and targeted information about unsafe drinking water systems. Moreover, a unified dataset could utilize drinking water indicator data layers from the CalEnviroScreen 3.0 more effectively. Additionally, the SWRCB must improve access to, and the consistency of, state monitoring, reporting and tracking for systems with fewer than 200 connections.

**Recommendation 3b: Develop new publicly accessible data and mapping tools to improve local and regional planning.**

The state should continue to develop a publicly accessible Human Right to Water indicator and/or tracking tool that can help local and state actors identify the challenges facing DUCs. The DWR and SWRCB should develop a statewide vulnerability tool that builds on the data and methodologies used for this report, and that collects and improves data on SSWSs and domestic wells. This can help to identify community vulnerability to water supply shortages and poor water quality. The Governor's Office of Planning and Research should also make use of this report's methodologies to create a statewide DUC map to inform local and statewide planning and investment priorities for those communities.

A copy of the full report can be accessed online at: https://regionalchange.ucdavis.edu/publication/water-justice.

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| **Aoki Water Justice Clinic, UC Davis School of Law** | The Aoki Water Justice Clinic at the UC Davis School of Law combines student training in transactional law, policy advocacy, and strategic research to ensure that low-income California communities receive clean, safe, and affordable drinking water. The Water Justice Clinic also offers community trainings, and develops templates and guides for community advocates. To learn more, see: https://law.ucdavis.edu/clinics/water-justice-clinic.html. |
| **California Rural Legal Assistance Foundation** | CRLAF is a statewide non-profit civil legal aid organization providing free legal services and policy advocacy for California's rural poor. It focuses on some of the most marginalized communities: the unrepresented, the unorganized and the undocumented. and engages in community education and outreach, impact litigation, legislative and administrative advocacy, and public policy leadership at the state and local level. To learn more: https://www.crlaf.org/. |
| **Clean Water Action** | Clean Water Action is a national environmental organization that organizes strong grassroots groups and coalitions, and campaigns to elect environmental candidates to solve environmental and community issues. To learn more: http://www.cleanwateraction.org/about/who-we-are. |
| **Community Water Center** | The Community Water Center develops and supports community-driven solutions to provide assistance to disadvantaged communities in obtaining clean and affordable drinking water. The CWC aims to empower, and advocate alongside, community residents to push for water boards to clean up contaminated water, provide funding for new wells, issue compliance orders making mandatory the delivery of a year-round supply of potable water to residents, and instate language-access policies that would allow Spanish-speaking residents to participate in their local board meetings. To learn more: http://www.communitywatercenter.org/. |
| **Environmental Justice Coalition for Water** | EJCW is a statewide coalition of grassroots groups and intermediary organizations building a collective, community-based movement for democratic water allocation, management, and policy development in California. The EJCW empowers low-income communities and people of color throughout California to advocate for clean, safe, and affordable water for their communities. To learn more: https://ejcw.org/. |
| **Leadership Counsel for Justice and Accountability** | The Leadership Counsel for Justice and Accountability works alongside the most impacted communities to advocate for sound policy, eradicate injustice, and secure equal access to opportunity regardless of wealth, race, income, and place. Its members influence land use and transportation planning, shift public investment priorities, guide environmental policy, and promote the provision of basic infrastructure and services through community organizing, research, legal representation, and policy advocacy. To learn more: http://www.leadershipcounsel.org/. |
| **PolicyLink** | PolicyLink is a national research and action institute aimed at advancing racial and economic equity by Lifting Up What Works. PolicyLink connects the work of people on the ground to the creation of sustainable communities of opportunity that allow everyone to participate and prosper. To learn more: http://www.policylink.org/about. |

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